平成 29 年度化学物質安全対策 (化学物質管理に関する国際的な動向調査) 報告書

平成30年3月

一般財団法人 化学物質評価研究機構

<目次>

1. 調査目的	3
2. 調査内容及び調査方法	4
2.1 化学物質管理関連情報の調査	4
POPs 条約、PIC 条約及び水俣条約の関連会議における検討状況の調査	4
2.1.1 POPs 条約及び PIC 条約 COP	4
2.1.2 POPRC13	4
2.1.3 PICCRC13	4
2.1.4 第 1 回水俣条約 COP	4
2.2 POPs 規制動向に関する詳細調査	4
2.2.1 POPs 条約の規制候補物質に関する詳細調査	4
2.2.2 国内検討会議の開催	5
3. 調查結果	6
3.1 化学物質管理関連情報の調査	6
POPs 条約、PIC 条約及び水俣条約の関連会議における検討状況の調査	6
3.1.1 POPs 条約及び PIC 条約の各 COP	6
3.1.2 POPRC13	8
3.1.3 PICCRC13	
3.1.4 第 1 回水俣条約 COP	
3.2 POPs 規制動向に関する詳細調査	15
3.2.1 POPs 条約の規制候補物質に関する詳細調査	
3.2.2 国内検討会議の開催	29
4. まとめ	30
4.1 化学物質管理関連情報の調査	30
4.2 POPs 規制動向に関する詳細調査	30

- 【添付資料 1】POPs 条約 COP8 のレポート (UNEP/POPS/COP.8/32) (英文)
- 【添付資料 2】PIC 条約 COP8 のレポート (UNEP/FAO/RC/COP.8/27) (英文)
- 【添付資料 3】POPRC13 のレポート (UNEP/POPS/POPRC.13/7) (英文)
- 【添付資料4】POPRC13 で合意された PFOA とその塩及び関連物質の管理評価書案 (UNEP/POPS/POPRC.13/7/Add.2) (和文翻訳)
- 【添付資料 5】PICCRC13 のレポート (UNEP/FAO/RC/CRC.13/19) (英文)
- 【添付資料 6】第1回水俣条約 COP のレポート (UNEP/MC/COP.1/29) (英文)
- 【添付資料7】PFHxSとその塩及びPFHxS関連物質の残留性、生物蓄積性等に関する情報

1. 調査目的

化学物質管理に関連する国連ベースの多国間条約のうち、経済産業省では以下のような 条約に対応すべく、化学物質の製造・使用・貿易等に係る規制措置を実施している。

- ▶ 「残留性有機汚染物質に関するストックホルム条約」(POPs 条約)¹
- ➤ 「国際貿易の対象となる特定の有害な化学物質及び駆除剤についての事前のかっ情報に基づく同意の手続きに関するロッテルダム条約」(PIC条約)²

「水銀に関する水俣条約」(水俣条約)3

各条約の対象物質の追加等が行われた場合には、国内の法制度等に適切に反映する必要があるため、これら条約の動向を中心に、主に経済産業省で担当する化学物質の製造・使用・貿易等に関する規制の国際動向に注目した情報収集をすることが重要である。

そこで、本事業では、POPs 条約、PIC 条約及び水俣条約に関係する国際会議における検討状況を調査するとともに、これら 3 条約の着実な国内実施のために必要な基礎情報を収集・整理した。また、POPs 候補物質に関する国際会議における検討状況の詳細を踏まえつつ、必要に応じて、POPs 及び POPs と類似の性状を有する化学物質に関する国際機関及び諸外国での規制等に関する情報を収集した。

-

¹ 隔年開催の締約国会議(COP)、毎年開催の残留性有機汚染物質検討委員会(POPRC)にて、残留性有機汚染物質(POPs)候補物質の性状や管理方法を踏まえた規制措置及び禁止後の措置(代替製品への転換、禁止物質の回収・処分)等の議論が行われている。新たに廃絶対象となるPOPs が追加された場合、我が国では、化学物質の審査及び製造等の規制に関する法律(化審法)において当該物質の製造・使用・輸入を禁止すること等で対応している。また、欧州や米国等でも、POPs の性状(残留性、生物蓄積性、毒性、長距離移動性)に着目した化学物質規制が検討、整備されており、このような活動を通じて、今後のPOPs 候補となり得る物質が複数挙げられている。

² 隔年開催の COP、毎年開催の化学物質検討委員会(CRC)にて、各国で禁止等の厳しい規制措置がとられた化学物質のリスク評価等について検討されている。新たに情報交換の対象物質が追加された場合、我が国では、外国為替及び外国貿易法に基づく輸出承認制度の対象とすることにより対応している。

^{3 2017}年(平成 29年)8月に発効し、同年9月に第1回 COP が開催された。我が国では、水銀による環境の汚染の防止に関する法律を中心に、水銀のライフサイクル全体にわたる包括的な対策を講じることとしている。

2. 調査内容及び調査方法

2.1 化学物質管理関連情報の調査

POPs 条約、PIC 条約及び水俣条約の関連会議における検討状況の調査

2.1.1 POPs 条約及び PIC 条約 COP

2017 年 4 月末から 5 月初めにジュネーブで開催された第 8 回 POPs 条約及び PIC 条約 COP (COP8) について、会議資料等から結果概要を把握した。

2.1.2 POPRC13

2017 年 10 月にローマにおいて開催された第 13 回残留性有機汚染物質検討委員会 (POPRC13) の検討状況を調査するため、国内有識者を派遣するとともに、有識者に同行して情報収集・分析など委員会対応に必要なサポートを行った。

2.1.3 PICCRC13

POPRC13 の直後にローマにおいて開催された 第13回化学物質検討委員会 (PICCRC13) に出席し、情報収集・分析などを行った。

2.1.4 第 1 回水俣条約 COP

2017年9月にジュネーブにおいて開催された第1回水俣条約 COP に出席し、情報収集・ 分析などを行った。

2.2 POPs 規制動向に関する詳細調査

2.2.1 POPs 条約の規制候補物質に関する詳細調査

(1) 新規提案物質

ノルウェーより新たに提案された PFHxS (ペルフルオロヘキサンスルホン酸)とその塩及び PFHxS 関連物質について、国内法令での措置状況、有害性評価・リスク評価等の実施状況及び 評価結果、製造及び使用量等について調査した。また、提案文書及び補足文書に記載された情報、国内の既存点検データ等に基づき、POPs 条約附属書 D に規定されるスクリーニング基準に 基づく項目のうち残留性及び生物蓄積性情報について、基準を満たすか否かを検討した。

(2) PFOA (ペルフルオロオクタン酸)とその塩及び PFOA 関連物質に関する検討

PFOA とその塩及び関連物質に関して作成されるリスク管理評価書に関して、国内外の規制措置や代替方法等に関する情報を整理した。また、PFOA 関連物質に関しては、その規制範囲が議論になる可能性があることから、必要に応じて PFOA 関連物質の性状(主に分解性)等について調査した。さらに、会期間作業において事務局から提供されるリスク管理評価書案へのコメント案の作成を行った。

(3) ジコホルに関する検討

ジコホルに関して作成されるリスク管理評価書に関して、国内外の規制措置や代替方法等に関する情報を整理するとともに、必要に応じて調査を実施した。さらに、会期間作業に

おいて事務局から提供されるリスク管理評価書案を確認した。経済産業省担当官と協議の 結果、コメント作成は行わないとの結論になった。

2.2.2 国内検討会議の開催

POPRC13 の開催前後に大学教授や研究機関などの専門家らによる検討会議を開催し、POPRC13 対応についての有識者の意見を聴取・取りまとめ、及び POPRC13 の結果報告を行った。

3. 調査結果

3.1 化学物質管理関連情報の調査

POPs 条約、PIC 条約及び水俣条約の関連会議における検討状況の調査

3.1.1 POPs 条約及び PIC 条約の各 COP

2017年4月24日~5月5日にスイスのジュネーブにおいて、バーゼル条約、ロッテルダム (PIC) 条約、ストックホルム (POPs) 条約の締約国会議 (COPs) 及び合同締約国会議 (Joint COPs) が開催された。そのうちの POPs 条約及び PIC 条約の COP について、主な議題とその結果を以下に示す。

なお、POPs 条約 COP8 のレポート (UNEP/POPS/COP.8/32)(英文)を【**添付資料 1**】に、PIC 条約 COP8 のレポート (UNEP/FAO/RC/COP.8/27) (英文)を【**添付資料 2**】に示す。

(1) POPs 条約 COP8

1) デカブロモジフェニルエーテル

デカブロモジフェニルエーテル(商業用混合物、c-decaBDE)の附属書 A(廃絶)への追加が決定し、製造・使用等の廃絶に向けた取組を、条約の下で、国際的に協調して行うこととなった。なお、以下の適用除外に関する規定が含まれる。

製造;登録簿に掲げる締約国について認めることのできるもの As allowed for the Parties listed in the Register

使用;自動車用部品(動力伝達系、燃料系等)

2022年12月より前に承認を受けた航空機及びその交換部品

難燃性を有する繊維製品

家電製品に用いられるプラスチックケース及び部品の添加剤

断熱性建材用ポリウレタンフォーム

また、デカブロモジフェニルエーテルの適用除外に関する情報について、引き続きの情報 収集と評価を行うことも併せて決定した。

2) 短鎖塩素化パラフィン (SCCP)

短鎖塩素化パラフィン(C_{10} から C_{13} の鎖長を有する直鎖の塩素化炭化水素であり、塩素を 48wt%以上含むもの)の附属書 A (廃絶)への追加が決定し、製造・使用等の廃絶に向けた取組を、条約の下で、国際的に協調して行うこととなった。なお、以下の適用除外に関する規定が含まれる。

製造;登録簿に掲げる締約国について認めることのできるもの

使用:動力伝達用ベルト添加剤(天然・合成ゴム産業)

ゴム製コンベアベルト用交換部品(鉱業及び林業用)

皮革用加脂剤

潤滑油添加剤(特に自動車、発電機等の用途)

屋外装飾電球用のチューブ

防水及び難燃性塗料

接着剤

金属加工

軟質ポリ塩化ビニルの二次可塑剤 (玩具及び子供用製品を除く)

また、附属書 A 第一部の注釈 (i) 「製品中及び物品中の意図的でない微量の汚染物質として生じている量の化学物質は、条約に別段の定めがある場合を除くほか、この附属書に掲げられているものとして取り扱わない。」との規定は、非意図的であっても 1wt%以上短鎖塩素化パラフィンが含まれる場合には適用されないこととなった。

短鎖塩素化パラフィンの適用除外に関する情報について、引き続きの情報収集と評価を 行うことも併せて決定した。

3) ヘキサクロロブタジエン (HCBD)

 \sim キサクロロブタジエンの附属書 \mathbb{C} (非意図的な生成) \sim の追加が決定し、非意図的な生成による放出の削減に向けた取組を、条約の下で、国際的に協調して行うこととなった。

4) ブロモジフェニルエーテル

2009年の第4回締約国会議 (COP4)で附属書Aに追加された4種類のブロモジフェニルエーテル (テトラ、ペンタ、ヘキサ及びヘプタブロモジフェニルエーテル)に関して、条約上で2030年まで適用除外が認められているリサイクル用途について議論された。2021年の第10回締約国会議 (COP10)において、これらの適用除外が引き続き必要であるかを評価するための作業を行うことが合意されるとともに、これらの作業を進めるに当たっての具体的な作業計画が決定された。

5) ペルフルオロオクタンスルホン酸 (PFOS) とその塩及びペルフルオロオクタンスルホン酸フルオリド (PFOSF)

COP4 で附属書 B (制限) に追加された PFOS とその塩及び PFOSF については、いくつかの用途に対して適用除外が条約上で認められている。2019 年の第 9 回締約国会議 (COP9) において行われる、これら適用除外の継続の必要性の評価に向けて、締約国から収集する情報の具体的な内容について合意された。

(2) PIC 条約 COP8

PICCRC が附属書Ⅲ(輸出手続きが必要となる化学物質)へ新たに追加することを勧告した物質群の内、4 物質(群)について附属書Ⅲに追加され、2017年9月15日に発効することが決定された(表 3-1)。

表 3-1 PIC 条約 COP8 において附属書 III への追加が決定した物質(群)

化学物質	CAS 番号	分類
Carbofuran(カルボフラン)	1563-66-2	駆除剤
Trichlorfon (トリクロルホン)	52-68-6	駆除剤
Short-chain chlorinated paraffins(短鎖塩素化パラフィン)	85535-84-8	工業用
All tributyltin compounds including:		工業用
(以下を含む全てのトリブチルスズ化合物)		
- Tributyltin oxide (トリブチルスズオキシド)	56-35-9	
- Tributyltin fluoride (トリブチルスズフルオリド)	1983-10-4	
- Tributyltin methacrylate(トリブチルスズメタクリラート)	2155-70-6	
- Tributyltin benzoate (トリブチルスズベンゾエート)	4342-36-3	
- Tributyltin chloride (トリブチルスズクロリド)	1461-22-9	
- Tributyltin linoleate (トリブチルスズリノリエート)	24124-25-2	
- Tributyltin naphthenate(トリブチルスズナフテート)	85409-17-2	

3.1.2 POPRC13

POPs 条約対象物質への追加を提案された候補物質を検討するために設置された POPRC の第 13 回会合が、2017 年 10 月 17 日~20 日、ローマ (イタリア) にて開催された。以下に POPRC13 の会合概要を報告する。

なお、POPRC13 のレポート (UNEP/POPS/POPRC.13/7)(英文)を【**添付資料 3**】に示す。 また、【**添付資料 4**】として、POPRC13 で合意された PFOA とその塩及び PFOA 関連物質の リスク管理評価書案 (UNEP/POPS/POPRC.13/7/Add.2) の和文翻訳を示す。

(1) 会合の概要

POPRC13 の議長は Ms. Maria Delvin (スウェーデン)、メンバーとしての参加国は、日本、ガボン、レソト、モーリタニア、セネガル、ケニア、スワジランド、イラン、スリランカ、中国、インドネシア、ネパール、ベラルーシ、チェコ、ポーランド、エクアドル、セントビンセント及びグレナディーン諸島、ジャマイカ、オーストラリア、オーストリア、カナダ、ルクセンブルク、スイス、オランダ、チュニジア、ベネズエラの 27 カ国で、ブラジル、マリ、オマーン及びパキスタンが欠席であった。

POPRC13 では、ジコホル、PFOA とその塩及び PFOA 関連物質の各リスク管理評価書案の検討、PFHxS とその塩及び PFHxS 関連物質の提案文書の検討並びに PFOS とその塩及び PFOSF の適用除外の継続的必要性に係る評価のプロセスついての検討が行われた。

以下に POPRC13 での主な検討結果を示す。

● POPs 候補物質の検討結果

シジコホル

リスク管理評価書に係る決議が採択された。特定の用途についての適用除外を設けず、廃 絶対象物質(附属書 A)に追加することにつき、次回締約国会議(COP9)に勧告することを 決定した。

➤ PFOA とその塩及び PFOA 関連物質

リスク管理に関する評価及びPOPs条約上の位置付け(製造・使用等の「廃絶」又は「制限」、並びに「意図的でない生成」)について検討し、特定の用途についての適用除外項目、POPs条約上の位置付け及びPFOA関連物質の対象範囲について、今後更なる情報を収集し、次回会合(POPRC14)まで議論を重ねることになった。

➤ PFHxS とその塩及び PFHxS 関連物質

提案国から提出された提案文書について、残留性、濃縮性、長距離移動性及び毒性等を 審議した結果、PFHxSが附属書Dのスクリーニング基準を満たすとの結論に達し、附属書E (リスクプロファイル案)作成の段階へ進むこととなった。

● その他の技術的課題の検討結果

▶ 附属書 B 第三部第 5 項及び第 6 項に準じた PFOS とその塩及び PFOSF の適用除外の 継続的必要性に係る評価のプロセス

PFOS 及びその塩並びに PFOSF の適用除外の継続的必要性に係る評価のためのプロセス、 並びに PFOS 及びその塩並びに PFOSF の代替に関する付託条項に係る決議が採択され た。会期間作業グループが設立され、PFOS とその塩及び PFOSF の代替について評価する こととなった。

(2) 議事次第

POPRC13 の議事次第及び検討内容を表 3-2 に示す。

議題 検討内容の概要 会議資料 開会 2017年10月17日(火)9:30より開会。 組織事項 事務局より提示された議題案を採択。 (a) 議題の採択 会合のシナリオメモ、暫定スケジュールについて確認。必 (b) 作業の構成 Add.1 要に応じて、Contact Group、Drafting Group 及び Friends INF/1 of the Chair Group を設置し検討を進めることを確認。 INF/2 メンバー交代 2016年5月からの新メンバーと2018年5月のメンバー 3 INF/3 交代について紹介された。 POPRC に関連する COP8 における成果について紹介さ POPRC に関係する第 8 INF/4 回締約国会議の結果 れた。 技術的課題 (a) リスク管理評価書案

表 3-2 POPRC13 の議事次第及び検討内容

	議題	検討内容の概要	会議資料
	(i) ジコホル	会期間作業グループにおいて作成されたリスク管理評価	2
		書案について検討された。	INF/5
	(ii) PFOA とその塩及び	会期間作業グループにおいて作成されたリスク管理評価	3
	PFOA 関連物質	書案について検討された。	INF/6
			INF/6/
			Add.1
			INF/7
	(b) PFHxS とその塩及び	ノルウェーから提案された提案文書について検討され	4
	関連物質	た。	INF/8
	(c) 附属書 B 第三部第 5	収集した情報が紹介され、今後の作業計画について検	5
	項及び第 6 項に準じた	討された。	INF/9
	PFOS とその塩及び		
	PFOSF 並びに関連化学		
	物質の評価のプロセス		
6	POPRC 委員会作業への	効果的な参加を支援するための事務局の取組み、今後	INF/10/R
	効果的な参加に関する	の活動に関する提案等が報告された。	ev.1
	報告		
7	会期間の作業計画	PFHxS とその塩及び PFHxS 関連物質のリスクプロファイ	6
	(POPRC13~POPRC14)	ル案の作成、PFOA とその塩及び PFOA 関連物質のリス	
		ク管理評価書案の補遺及び PFOS とその塩及び PFOSF	
		の代替の評価案作成のワーキンググループが設置され	
		た。	
8	POPRC14 の開催日程及	2018 年 9 月 17 日 - 21 日にローマで開催される予定であ	-
	び開催場所	వ .	
9	その他の議題		
	リスクプロファイルとリスク	POPRC14 にて再度議論することとなった。	INF/11
	管理評価書の概要につ		
	いて		
10	報告書の採択	POPRC13 の報告書案の確認及び採択。	-
11	閉会	10月20日(金)22時00分 閉会。	-

^{*} 会議資料は UNEP/POPS/POPRC.13/の後の番号を記載

3.1.3 PICCRC13

PICCRC の第 13 回会合が 2017 年 10 月 23 日から 10 月 27 日にローマ (イタリア) で開催 された(22 日に事前会合あり)。以下に会合概要を報告する。

CRC13 のレポート (UNEP/FAO/RC/CRC.13/19) (英文) を【添付資料 5】に示す。

会合の概要

ロッテルダム条約とは、正式名称を「国際貿易の対象となる特定の有害な化学物質及び駆除剤についての事前のかつ情報に基づく同意の手続に関するロッテルダム条約」といい、

1998年9月に採択され、2004年2月に発効した。本条約は、先進国で使用が禁止または厳しく制限されている化学物質や駆除剤が、開発途上国にむやみに輸出されることを防ぐために、締約国間の輸出に当たっての事前通報/同意手続(Prior Informed Consent)等を規定したものである。

本条約の下、条約附属書 III に掲載された化学物質に関する輸入国側の輸入条件が全ての締約国に回付され、これに基づき輸出国は輸入国の当該化学物質の輸入意思を確認した上で輸出を行うこととなる。また、各締約国が独自に禁止又は厳しく制限した化学物質を輸出する際には、事前に輸入国へ当該化学物質の有害性情報などを通報することとなる。

条約附属書 III に化学物質を掲載する為には、その化学物質が条約附属書 II 若しくは附属書 IV の要件を満たす必要があり、この要件を満たしているか否かを検討するために、専門家による化学物質検討委員会(Chemical Review Committee、CRC)が設置されている。ストックホルム条約との連携を重視し、第 10 回会合より、ストックホルム条約の専門家委員会と連続して、同一場所で開催されている。

CRC13 の議長は Mr. Jürgen Helbig 氏 (スペイン)、メンバーとしての参加国は、アンティグア・バーブーダ、アルメニア、オーストラリア、カメルーン、カナダ、中国、ジブチ、ドミニカ共和国、ドイツ、インド、マダガスカル、マレーシア、モロッコ、オランダ、ニジェール、ノルウェー、ポーランド、モルドバ共和国、スペイン、スリランカ、タイ、トーゴ、トンガ、イギリス、イエメンの 25 カ国 (アルゼンチン、エチオピア、ホンジュラス、パキスタン、パナマ、スーダンの 6 カ国は欠席) であった。日本はオブザーバーとして参加した。

CRC13 では 13 種類の化学物質と 2 種類の著しく有害な駆除剤についてロッテルダム条約の附属書 III に掲げるためのクライテリアを満たすか否か検討し、3 物質 (アセトクロル、ヘキサブロモシクロドデカン、ホレート) について 2 地域以上からの通報が全てのクライテリアを満たすことで合意された。

CRC13 における議論の結果を表 3-3 に示す (太字:新たに draft guidance document (DGD) が作成されロッテルダム条約附属書 III への登録が勧告される物質とその通報)。

	• •	
名称	通報国 (用途)	結論
アセトクロル	アフリカ10カ国(農薬)	全てのクライテリアを満たす
	EU(農薬)	全てのクライテリアを満たす
アトラジン	EU(農薬)	クライテリア II(b)(iii)を満たさない
	アフリカ7カ国(農薬)	クライテリア II(b)(iii)を満たさない
四塩化炭素	カナダ (工業用)	全てのクライテリアを満たす(CRC1にてレビュー済)

表3-3 CRC13における候補物質の結論

名称	通報国 (用途)	結論
	ヨルダン(工業用)	クライテリア II(b)(iii)を満たさない
クロルデコン	中国 (農薬)	クライテリア II(b)(iii)を満たさない
	ペルー (農薬)	クライテリア II(a)(b)を満たさない
	日本(農薬、工業用)	クライテリア II(b)(iii)を満たさない
エンドスルファン	日本 (工業用)	クライテリア II(b)(iii)を満たさない
ヘキサブロモ	中国(工業用)	クライテリア II(b)(iii)を満たさない
シクロドデカン	日本(工業用)	全てのクライテリアを満たす
	ノルウェー(工業用)	全てのクライテリアを満たす
ヘキサジノン	ノルウェー(農薬)	クライテリア II(b)(iii)を満たさない
	アフリカ10カ国(農薬)	クライテリア II(b)(iii)を満たさない
マイレックス	カナダ (工業用)	全てのクライテリアを満たす (CRC2, 3にてレビュー済)
	コロンビア (農薬)	クライテリア II(b)(iii)を満たさない
ペンタクロロベンゼン	中国 (農薬)	クライテリア II(b)(iii)を満たさない
PFOS とその塩	EU(工業用)	全てのクライテリアを満たす(CRC7にてレビュー済)
及び PFOSF	日本 (工業用)	全てのクライテリアを満たす(CRC7にてレビュー済)
	中国 (農薬)	クライテリア II(b)(iii)を満たさない
ホレート	カナダ(農薬)	全てのクライテリアを満たす(CRC5にてレビュー済)
	ブラジル (農薬)	全てのクライテリアを満たす
ポリ塩化	カナダ(工業用)	全てのクライテリアを満たす (CRC10にてレビュー済)
ナフタレン	日本 (農薬)	クライテリア II(b)(iii)を満たさない
トリアゾホス	マレーシア (農薬)	クライテリア II(a)(b)(c)を満たさない
	アフリカ7カ国(農薬)	クライテリア II(b)(iii)を満たさない
Lambda- cyhalothrin emulsifiable concentrate 50g/L	ジョージア(SHPF)	クライテリア III(d)を満たすか否か判断不能(新たな情報が提出された場合に再度検討)

名称	通報国 (用途)	結論
Lambda-	ジョージア(SHPF)	クライテリア III(d)を満たさない
cyhalothrin		
capsule		
suspension 50g/L		

(特記事項)

- ・CRC11から CRC13に至るまで継続議題とされたアトラジンは、CRC12以降通報国からの 追加情報がなく、新たな情報が出るまで議論されないこととなった。
- ・POPs に登録されているクロルデコンに関する通報(通報国:中国、ペルー、日本)について、国際貿易に関する情報は見出されなかったが、国際貿易が存在する可能性は排除できないとしてクライテリア II(c)(iv)を満たすと判断された。
- ・ヘキサクロロベンゼンに関する日本の通報についての議論において、日本の最終規制措置 におけるリスク評価データの利用方法が次の通り明確化された。
 - ・化審法において特定の物質の製造・輸入・使用を禁止する判断の根拠にはリスク評価は不要(毒性のみで判断している)。しかし、化審法の施行においては第一種特定化学物質(一特)に指定した化学物質が含まれる製品の回収措置を講じるか否かも判断しなければならないため、特定の物質が含まれる製品が市場に出回っている場合にはリスク評価を行い、回収措置の実施適否を判断している。
 - ・過去にロッテルダム条約附属書 II のクライテリアを全て満たした PFOS の場合、適用除外の使途を設けていることから、特定の分野で使用し続けた場合にリスクが生じるか否かも検討する必要があり、その観点からもリスク評価を実施した。
 - ・つまり、リスク評価を実施する目的は(1)回収措置を講じる必要があるか否かを判断するためと(2)適用除外の使途を設けて問題がないか判断するためである。
 - ・回収措置を講じるか否かは全ての対象物質について検討しているものの、一部の物質 は市場に出回っていないためリスク評価を実施していない(そもそも環境中に放出さ れることはないのでばく露評価ができない)。

3.1.4 第1回水俣条約 COP

第1回水俣条約 COP が、2017 年 9 月 24 日 ~9 月 29 日、スイス (ジュネーブ) にて開催された。以下に会合における水銀、水銀化合物及びそれらを使用した製品の貿易に関する動向に関する概要を報告する。

なお、第 1 回水俣条約 COP のレポート (UNEP/MC/COP.1/29) (英文)を**【添付資料 6】**に示す。

会合の概要

条約事務局の設置

本条約事務局は当面の間スイス・ジュネーブに設置され、BRS 条約(バーゼル条約、ロッテルダム条約、ストックホルム条約)事務局と一部運営を協力する方針で合意された。

● 技術的事項

「第3条 水銀の供給源及び貿易」における様式、証明書について、

UNEP/MC/COP.1/5、UNEP/MC/COP.1/6の通り合意された。

「第8条 排出」の大気排出に関するBAT(利用可能な最良の技術)/BEP(環境のための最良の慣行)のガイダンス(UNEP/MC/COP.1/7)が合意された。

● 締約国による報告

「第21条 報告」に関する様式及び頻度について、すべての項目の報告は4年毎、特定の情報(採掘場所・採掘量、水銀の在庫量、水銀廃棄物量)については2年毎の報告することで合意された。また、報告内容は前年までの情報を集計し、4年毎及び2年毎の報告ともに報告年の12月31日までに行うこととし、2017年の情報については可能な限り報告することで合意された。なお、報告率を含む情報について、COP事務局に提出するよう要求することで合意した。

● 資金メカニズム

「第13条 資金及び資金供与の制度」における、Specific International Programme(SIP)の運営主体は水俣条約事務局とし、各国の代表者からなる管理理事会がプロジェクトの選定に関与し、SIPの実施期間を10年間(必要に応じて7年延長)とすることで合意された。また、一部ブラケットを残すが支援実施に関する手引きが合意された。

● 有効性の評価

「第22条 有効性の評価」において、専門家会合が設置されること、各地域の専門家人数、次回COP(COP2)までのロードマップ等が合意された。

3.2 POPs 規制動向に関する詳細調査

3.2.1 POPs 条約の規制候補物質に関する詳細調査

(1) 新規提案物質

ノルウェーより新たに提案された PFHxS (ペルフルオロヘキサンスルホン酸) とその塩及び PFHxS 関連物質について、国内法令での措置状況、有害性評価・リスク評価等の実施状況等とその結果、製造、使用量等について調査した。また、提案文書及び補足文書に記載された情報、国内の既存点検データ等に基づき、POPs 条約附属書 D に規定されるスクリーニング基準 (表 3-4) に基づく項目のうち残留性及び生物蓄積性情報について、基準を満たすかどうかを検討した。

表 3-4 POPs 条約附属書 D に規定されるスクリーニング基準

(a) 物質の特定	(i) 物質名
	(ii) 構造 (異性体の特定を含む)
(b) 残留性	(i) 水中半減期>60日、土壌中半減期>6ヶ月、底質中半減期>6ヶ月
	又は
	(ii) その他の科学的根拠
(c) 生物蓄積性	(i) 水生生物における BCF ⁴ 又は BAF ⁵ >5,000
	(BCF 又は BAF データがない場合、log Kow>5)
	(ii) 他の生物における高い生物蓄積性や生態毒性を示す根拠、又は
	(iii) 生物蓄積性の可能性を示す生物相におけるモニタリングデータ
(d) 長距離移動性	(i) 排出源から離れた地点における測定濃度
	(ii) 長距離にわたる移動が大気、水、渡り鳥などの回遊性の生物種を経由
	して起こることを示すモニタリングデータと、環境への移動可能性
	(iii) 環境中運命又は大気を経由した長距離にわたる移動可能性を示すモ
	デル計算結果と、排出源から離れた地点における環境への移動可能性。
	大気を経由して著しく移動する物質の場合、大気中の半減期>2日
(e) 有害な影響	(i) 人の健康や環境に対する有害な影響
	(ii) 人の健康や環境を損なう可能性を示す毒性データ、又は生態毒性デー
	Я

1) 化学物質の特定情報(出典: UNEP/POPS/POPRC.13/4)

表 3-5 に PFHxS とその塩及び PFHxS 関連物質の特定情報を示す。塩類及び PFHxS 関連物質は提案書 (UNEP/POPS/POPRC.13/4) に例として記載されている物質である。

⁴ BCF; Bioconcentration factor (水 (えら) からの取込みに関する濃縮係数)

⁵ BAF; Bioaccumulation factor (水 (えら) からと餌の両方の取込みに関する濃縮係数)

表 3-5 PFHxS とその塩及び PFHxS 関連物質の特定情報

~~	衣 3-3 PFRXS こて い塩及い PFRXS						
物質名	CAS 番号	構造	化学式	分子量 (g/mol)			
ペルフルオロヘキサン スルホン酸 (Perfluorohexane sulfonic acid, PFHxS)	355-46-4	O F F F F F F F F F F F F F F F F F F F	C ₆ F ₁₃ SO ₃ H	400.11			
ペルフルオロヘキサン スルホニルオキシフル オリド(PFHxSF)	423-50-7	O F F F F F F F F F F F F F F F F F F F	$C_6F_{14}O_2S$	402.096			
ペルフルオロヘキサン スルホン酸アンモニウ ム	68259-08-5	NH ₄ -0 S F F F F F	$C_6H_4F_{13}NO_3S$	417.136			
ペルフルオロヘキサン スルホン酸カリウム	3871-99-6	0 S F F F F	C ₆ F ₁₃ KO ₃ S	438.195			
ペルフルオロヘキサン スルホンアミド	41997-13-1	O F F F F F F F F F F F F F F F F F F F	C ₆ H ₂ F ₁₃ NO ₂ S	399.126			
N-エチル-N-[(トリデカ フルオロヘキシル)ス ルホニル]グリシンカ リウム	67584-53-6	K+ O S F F F F F F F F F F F F F F F F F F	C ₁₀ H ₇ F ₁₃ KNO ₄ S	523.307			

2) 物理化学的性状 (出典: UNEP/POPS/POPRC.13/4) 表 3-6 に PFHxS の物理化学的性状を示す。

表 3-6 PFHxS とその塩及び PFHxS 関連物質の物理化学的性状

物質名	CAS 番号	蒸気圧	log Kow	水溶解性
ペルフルオロへ	335-46-4	58.9 Pa (calculated)	5.17 (estimated)	2.3 g/L (20-25°C,
キサンスルホン				estimated)
酸 (PFHxS)				

3) 国内法令での規制状況及び製造・輸入数量等

PFHxS とその塩及び PFHxS 関連物質の国内法令での規制状況及び製造・輸入数量等の概要を表 3-7 に示す。

表 3-7 PFHxS とその塩及び PFHxS 関連物質の国内法令での規制状況及び 製造・輸入数量等

CAS No.	物質名	官報公示 整理番号	化審法	製造・輸入数量 実績	その他 適用法令
355-46-4	ペルフルオロヘキ	_	_	_	_
	サンスルホン酸				
	(PFHxS)				
423-50-7	ペルフルオロヘキ	_	_	_	_
	サンスルホニルオ				
	キシフルオリド				
	(PFHxSF)				
	ペルフルオロヘキ	_	_	_	_
68259-08-5	サンスルホン酸ア				
	ンモニウム				
		2-2810	既存	2015年度:	_
	ペルフルオロヘキ			1トン以上1,000	
3871-99-6	サンスルホン酸カ	ル(C4~12)スルフ		トン未満	
	リウム	オン酸塩(Na, K,			
		Ca))			
	ペルフルオロヘキ	_	_	_	_
41997-13-1	サンスルホンアミ				
	ド				
	N-エチル-N-[(ト	2-2815	既存	_	_
	リデカフルオロへ	(パーフルオロアル			
67584-53-6	キシル)スルホニ	キル(C6~10)-N-エ			
	ル]グリシンカリ	チルスルホニルグ			
	ウム	リシン塩(K))			

-:該当する情報なし

4) 有害性評価・リスク評価等の実施状況等

PFHxS とその塩及び PFHxS 関連物質の国内における有害性評価・リスク評価等の実施状況を調査した結果、化審法既存化学物質安全性点検、環境省生態影響試験、CERI/NITE 化学物質有害性評価書/初期リスク評価書、厚生労働省有害性評価書/初期リスク評価書及び環境省化学物質の環境初期リスク評価のいずれにおいても、評価は実施されていなかった。

海外では、以下の有害性評価・リスク評価等の実施が確認された。

(a) REACH SVHC(高懸念物質)指定根拠文書(Support Document)⁶

PFHxS とその塩は、2017 年 7 月に、SVHC として REACH の認可対象候補物質リスト (Candidate List) に追加されている。SVHC に指定された根拠は vPvB (極難分解性、極生物蓄積性) に該当するためである。SVHC 指定の根拠文書 (Support Document) のサマリー部分(抜粋)を以下に示す。

<SVHC 指定根拠文書のサマリー部分(抜粋)>

残留性

PFHxS は、安定したパーフルオロ構造を持ち、環境条件下で非生物的分解を受けることは期待されない。光分解による分解が殆どないことが示された利用可能な水中での光変換に関する研究は、この解釈を支持する。生分解に関する研究はないため、構造的に類似した化合物からのデータがリードアクロスアプローチで使用された。PFOS を用いたリードアクロスでは生分解スクリーニング試験が、PFOS 及び PFOA を用いたリードアクロスではシミュレーション試験(水、底質及び土壌)が適用された。

PFSAs 及び PFCAs の残留性は、一般に、フッ素原子の遮蔽効果(例えば、炭素鎖に対する求核攻撃の防御)によって説明することができる。高い電気陰性度、低い分極率及び高い結合エネルギーによって、高度にフッ素化されたアルカンは極めて安定な有機化合物になる。PFSAs のスルホン酸基によって、これらの化学物質の残留性が変わるとは考えられない。候補リストに含まれている PFOS 及び 8 つの PFCAs の残留性はすでに確認されている。

したがって、C-F 結合の安定性及び PFOS と PFOA を用いたリードアクロスアプローチの知識に基づいて、PFHxS は環境中では極めて限られた分解しか受けないと予想され、したがって REACH の附属書 XIII に規定されている基準及び条項に従い、P-および vP の基準を満たすと結論される。

生物蓄積性

_

報告された PFHxS の BCF 及び BAF は、REACH 附属書 XIII の基準値 2000/5000 以下で

⁶ https://echa.europa.eu/documents/10162/1f48372e-97dd-db9f-4335-8cec7ae55eee

あるが、BAF値の1つが2000に近いことは注目に値する(log BAF=3.3 は BAF=1995に相当)。後者の値は、その物質がいくつかの水生生物種において生物蓄積性(B)基準のボーダーラインであることを示唆している。また、物質の表面活性特性のために、利用可能な BCF 試験の妥当性及びその結果の有用性が疑問視される可能性がある。さらに、PFHxS は予想される顕著な水溶性のために、魚では他の PFSAs 及び PFCAs のようにえら透過によって速やかに排泄されることが期待される。PFHxS は、他の PFSAs 及び PFCAs と同様に、脂肪組織へ分布するという従来の疎水性化合物の挙動に従わず、血液及び肝臓中のタンパク質と結合する。したがって、えら呼吸生物における生物濃縮と脂質への蓄積は、これらのタイプの物質においては、考慮する最も重要なエンドポイントではない。フィールド調査によると、空気呼吸生物は、水呼吸生物よりも PFHxS 及び他の PFAS を生物濃縮する可能性が高い。したがって、REACH 附属書 XIII(セクション 1.1.2 及び 1.2.2)の水生生物種について定義された生物蓄積性(B)/(vB)基準値は、PFHxS の生物蓄積性を評価するのに適していない。

REACH 附属書 XIII(3.2.2 節)は、生物蓄積性(B)の評価において考慮されるべき情報を定義し、証拠の重み付けアプローチにおいて結論を導き出すために使用することができ、使用すべきである。BCF データに加えて、例えば、絶滅危惧種における濃縮レベルの上昇といった陸生生物における生物蓄積性ポテンシャルに関するデータは REACH の附属書 XIII のセクション 3.2.2(b)に基づいている。PFHxS は、セクション 3 に示される北極熊等絶滅危惧種と同様に、陸生種でも高濃度に検出された。野生生物で検出されたPFHxS の最高濃度は、北極大陸の最上位捕食者の北極熊で観察された(>500 μ g/kg-北極熊の肝臓)。この発見と、汚染された飲料水に暴露されたヒトで見出された高濃度のPFHxS(血清中 最高 1790 μ g/L)は、PFHxS への暴露がヒトを含む生物において高濃度になる可能性を示している。これらの知見は、生物蓄積性を示唆し、高い懸念事項である。

さらに、附属書 XIII(セクション 3.2.2 (b))によれば、人の体液または組織からのデータを考慮し、物質のトキシコキネティクスを考慮する必要がある。ヒトにおける妊娠及び授乳曝露の両方が PFHxS について示されている。さらに、人の体液からのデータは、PFHxS の生物蓄積性の定量的証拠を明確に示している。ヒトにおける排出半減期は、7~8年以上である。ヒト試料に関する時間的傾向の研究からのデータは、PFHxS の生物蓄積性が PFOS のそれをさらに上回ることを示している。

最後に、附属書 XIII(セクション 3.2.2 (c))は、物質の食物連鎖における生物濃縮の可能性が、証拠の重み付けアプローチの一環として評価されることを見込んでいる。利用可能なデータの信頼性が限られているため、PFHxS の食物連鎖による濃縮に関する結論を導くことはできない。しかし、利用可能なフィールドデータは、PFHxS に対するいくつかの捕食者/餌間の生物濃縮係数 (BMF)を提供する。空気呼吸の捕食者では、得られた BMFは1よりも大きく、特に北極熊の場合、モニタリングデータにより生物濃縮の可能性を示唆している。

マウス、雄ラット、ブタ、サル及びヒトにおける PFHxS の排泄半減期は、PFOS の排泄半減期と同程度である。ブタ、サル及びヒトにおいて観察された PFHxS の排泄半減期は、PFAS 類で最も長く、次に PFOS が長かった。例えば、PFOA が REACH の B-基準を満たすと考えられた主な理由は、一般市民の血液中に存在する場合の 2~4 年というヒト血中の長期排出半減期と、年齢とともに増加する血中レベルであった(ECHA, 2013b)。これは PFHxS についても当てはまるが、PFOA の排出半減期よりも少なくとも 2~4 倍長い、7~8 年(またはそれ以上)のヒト血中の排出半減期を有する。

物質の種類によっては、疎水性の程度から生物種及び性別に特有の ADME 特性まで、 生物濃縮を促進するプロセスが異なる。排出半減期は関連する生物蓄積性の基準として 認められており、PFHxS は、PBT/vPvB 及び POP 物質と比較して、最も長いヒト排泄半減 期が報告されている。

上記で要約した情報は、ストックホルム条約における"vB"に相当する生物蓄積性能を 有する PFOS の生物蓄積性データと高い整合性を示している。PFOS のリードアクロス(附 属書 I) は、証拠の重み付けの一つとして実施される。

結論:

- 1. PFHxS はヒトに蓄積する。
 - a. PFHxS は一般集団のヒト血液中に存在する。
 - b. 時間的傾向の研究は、PFHxSのヒトの生物蓄積性が PFOSの生物蓄積性よりも大きい可能性を示している。
 - c. PFHxSのヒト排泄半減期は7年超であり、これはデータが入手可能な全てのパーフルオロアルキル及びポリフルオロアルキル物質(PFAS)の中で最長である。また、いくつかの PCBs などの既知の PBT/vPvB 及び POP 物質について記録された最長のヒト排泄半減期に匹敵する。
- 2. PFHxS は、絶滅危惧種やヒトを含む空気呼吸哺乳動物に優先的に生物濃縮するという証拠がある。
 - a. ブタ(雌雄とも 713 日)およびサル(雄 141 日)において観察された PFHxS の 排泄半減期は、PFAS で観察された最長の半減期である。
 - b. BMFs (北極熊/アシカ (アザラシ) の肝臓) の範囲は 20~373 である。これらの 計算された数値の不確実性のため、BMF の過小評価または過大評価をもたらす 可能性がある。
 - c. 空気呼吸食物連鎖では、少なくとも PFOS と同程度かつ、すでに候補リストに vB として識別されている長鎖 PFCAs 以上に蓄積されている。
- d. 利用可能なデータの信頼性が限られているため、空気呼吸哺乳動物を含む水系食

物網における TMF について結論することはできない。

- e. ヒト (血清中 最大 1790 μ g/L) 及び野生生物 (北極熊の肝臓 >500 μ g/kg) の両方で PFHxS が高濃度で検出されたことは、PFHxS への曝露が生物相における高濃縮化をもたらす可能性があることを示している。
- 3. いくつかの水呼吸動物で PFHxS が"生物蓄積性 (B) 基準"のボーダーラインに見えても、PFHxS は、水溶性が高いため (2.3g/L)、魚では他の PFSAs や PFCAs のようにエラの浸透を介して速やかに排泄され、水呼吸動物における PFHxS の生物蓄積性能は非常に高くなるとは考えられない。
 - a. BCF は 9.6 (全身) から 100 (肝臓) の範囲。
 - b. 全身 BAFs は 380 (魚、カニ) から 1995 (魚) の範囲。
 - c. 全身 BMFs は 0.14(魚、実験データ)から 10(魚、フィールドデータ)の範囲。 これらの計算された数値の不確実性のため、BMFの過小評価または過大評価を もたらす可能性がある。
 - d. 利用可能なデータの信頼性が限られているため、水呼吸動物の食物網における TMF について結論することはできない。

結論として、証拠の重み付けアプローチにおいてすべての入手可能な情報、特に、非常に長いヒト排泄半減期、既に vB として特定されている PFOS 及び長鎖 PFCAs よりもさらに高い可能性のあるフィールドでの生物蓄積性指標を考慮すると、PFHxS が REACH 附属書 XIII の vB 基準を満たすことが提案される。

vPvB の結論

結論として、PFHxS は、証拠の重み付け決定において REACH の附属書 XIII に列挙されているすべての関連情報及び入手可能な情報を、同じ附属書に記載されている基準と比較することにより、REACH の第 57 条 (e) に従って vPvB 物質として同定される。

(b) ATSDR (DRAFT TOXICOLOGICAL PROFILE FOR PERFLUOROALKYLS) 7

米国有害物質・疾病登録局(Agency for Toxic Substances and Disease Registry; ATSDR)が作成したパーフルオロアルキル物質のドラフト版有害性評価書(DRAFT TOXICOLOGICAL PROFILE FOR PERFLUOROALKYLS)では、PFHxS については以下のデータのみが記載されている。

ラットに交配前から妊娠 21 日(雌)まで PFHxS を投与した結果、0.3mg/kg/日でプロトロンビン時間が増加し、3mg/kg/日で肝重量および肝細胞肥大の増加、甲状腺濾胞細胞過形成

_

https://www.atsdr.cdc.gov/ToxProfiles/tp.asp?id=1117&tid=237

が増加した。この研究では、生殖発生に関する影響は報告されていない。別の研究では、妊娠 10 日で 9.2mg/kg/日投与された成体マウスにおいて、自発運度活性の変化が観察された。 PFHxS については、最小リスクレベル(Minimal Risk Levels, MRLs)は設定されていない。

5) POPs 条約附属書 D に規定されるスクリーニング基準への適合性の検討

ノルウェーからの提案文書に記載された情報について、「PFHxS(ペルフルオロヘキサンスルホン酸)とその塩及び PFHxS 関連物質の残留性、生物蓄積性等に関する情報」として取りまとめた【添付資料 7】。

上記の調査結果から得られた残留性、生物蓄積性に関する情報に基づき、POPs 条約附属 書 D に規定されるスクリーニング基準 (表 3-4) のうち残留性及び生物蓄積性について、基準を満たすかどうか検討を行った。

検討結果を表 3-8 に示す。残留性について PFHxS はスクリーニング基準を満たすが、 PFHxS 関連物質については、分解して PFHxS になるという科学的な根拠が明示されておらず残留性について判断ができない。

生物蓄積性については、総合的にはスクリーニング基準を満たすと考えられる。

表 3-8 PFHxS とその塩及び PFHxS 関連物質のスクリーニング基準への適合性

項目	残留性、生物蓄積性に関する情報	スクリーニング基 準への適合性
残留性	(i) 半減期に関する根拠	PFHxS についてはス
	・なし。	クリーニング基準を満た
	(ii) その他の根拠	す。
	・マウナ・ケア山及び立山の標高が高い場所で、PFHxS	
	を含むいくつかの PFAS の光分解に関するフィールド	
	試験を行った結果、106日間及び20.5日間の集中的な	
	太陽光照射では、PFHxS の有意な光分解は観察されな	
	かった。	
	・炭素-フッ素結合が強いため、PFAS は化学分解、熱	
	分解及び生分解に対して非常に耐性があり、それ故に	
	多くは環境に残留する。	
	・PFAS の既知の残留性及び非常に残留性が高い PFOS	
	との密接な構造類似性に基づき、PFHxS とその塩及び	
	PFHxS 関連物質は加水分解、光分解、生分解しないと	
	考えられる。	
生物蓄積性	(i) BCF/BAF の根拠	PFHxS は生物蓄積
	・BCF 及び BAF は 5,000 以下であった。	性基準を満たして

- ・PFHxSのlog Kow値の測定値は報告されていない。
- ・PFHxS は、脂肪組織よりも血液及び肝臓中のタンパク質に優先的に結合し、さらにその水溶解度のために、PFHxS は魚類においてエラから速やかに排出されると予想される。
- ・log Kow、BCF、BAF は、PFHxS の評価には不適切。
- (ii) その他の根拠
- ・カナダの北極圏での陸生食物連鎖及び米国の湾での海 洋食物連鎖における PFHxS の BMF 値は 1 より大きく PFHxS が食物連鎖により生物濃縮することが示唆され た。
- ・ブタの組織への蓄積が報告されており、ブタの血漿中の PFHxS の排出半減期は 713 日であった。PFHxS のブタの全身、肉及び肝臓の BMF はそれぞれ 20.1、13.1 及び 48 であった。
- (iii) 生物蓄積性を示すモニタリングデータ
- ・妊婦の血液、臍帯血及び母乳から PFHxS が検出された。
- ・退職したフッ素化合物製造工場の労働者の血清中の PFHxS、PFOS 及び PFOA の半減期が以下のように報告 されている。

PFHxS: 8.5 年 PFOS: 5.4 年 PFOA: 3.8 年 いないが、PFHxS は 陸生生物及び海洋 哺乳類において蓄 積し、生物濃縮する (BMF>1)。

ヒトは **PFHxS** を蓄 積し、その排出半減 期は非常に遅い (半 減期約8年)。 以上から、スクリーニング

基準を満たす。

(2) PFOA (ペルフルオロオクタン酸)とその塩及び PFOA 関連物質に関する検討

PFOA とその塩及び PFOA 関連物質について、会期間作業グループより提供されたリスク管理評価書案 (第二次及び第三次ドラフト)の確認を行い、コメント案の作成を行った。また、リスク管理評価書案 (UNEP/POPS/POPRC.13/3)に関して、国内外の規制措置や代替方法等に関する情報として医薬化学品における代替について整理した。また、必要に応じてPFOA 関連物質の性状 (主に分解性)等について調査した。

1) リスク管理評価書案への対応

(a) リスク管理評価書案 (第二次ドラフト) への対応

経済産業省担当官と協議の上、PFOA 関連物質について、以下の趣旨のコメントを作成した。

- ・ PFOA 関連物質の "分解"のクライテリアを明確化し、分解して PFOA になる科学 的根拠(文献等)の示せるものだけを関連物質としてリストするべきである。
- ・ PFOA 関連物質から PFOA への変化は他の物質と異なり光分解が大きな役割を果たしているため、このことを記載した方がよい。
- ・ 医薬品を製造する目的で PFOB を製造するための PFOI の使用は免除とみなされる べきである (根拠論文も合わせて提示した)。

(b) リスク管理評価書案 (第三次ドラフト) への対応

第二次ドラフトに対して日本から提出したコメントについて、日本からの意見が反映されていることを確認した。PFOA 関連物質に関するコメントに対応し、フルオロテロマーベースの側鎖フッ素化ポリマーの分解に関する追加情報がスイスから提出された。確認した内容については 2) (c) に示す。医薬品製造目的での PFOB 製造のための PFOI の使用の免除については、適用除外のリストに加えられたが、適用除外を正当化するために、PFOI の使用が PFOB を製造する唯一の合理的な方法であることの追加の情報提供が求められた。

また、日本から提出したコメントとは関連しないが、第三次ドラフトでは、フルオロポリマーの不十分な焼却からの放出の情報がスイスから提出され、第二次ドラフトにはなかった附属書 C(非意図的放出)への記載が提案されていた。

2) リスク管理評価書案 (UNEP/POPS/POPRC.13/3) への対応

(a) 国内外の規制措置

規制措置としては、リスク管理評価書案において、特定の用途に対する除外規定あり又はなしで、附属書 A (廃絶) 又は附属書 B (制限) への記載が提案された。さらに、フルオロポリマーの不十分な焼却からの放出を低減又は排除するための方策を実施するきっかけになることから、附属書 C (非意図的放出) への記載が提案された。

PFOA とその塩及び PFOA 関連物質の国外の規制としては、カナダで PFOA とその塩及びこれらを含む物質及び製品の製造、使用、販売または輸入が禁止されている。ノルウェーでは、PFOA とその塩及び PFOA のエステルについて、繊維製品、カーペット及びその他のこれらの物質でコーティングされた消費者製品、及びこれらの物質を含む消費者製品の製造、輸入、輸出及び上市が禁止されている。EU REACHでは、2020年4月から PFOA とその塩及び PFOA 関連物質の製造や上市を制限するとともに、PFOA を 25ppb 超含有する、または PFOA 関連物質を合計 1,000ppb 超含有する混合物や成形品の製造時使用および上市が原則禁止される。

PFOA とその塩及び PFOA 関連物質の国内法令での規制状況を表 3-9 に示す。

表 3-9 PFOA とその塩及び PFOA 関連物質の国内法令での規制状況

物質名	CAS番号		化審法		化管法	労働安全衛生法	水質汚濁	下水道法	水道法	土壌汚染対策法
初貝石	UAS留写	_	官報整理番号	官報公示名称	10官法	力側女王俐土法	防止法	下小坦法	小坦 法	工場乃宋刈泉法
ペンタデカフルオロ オクタン酸(PFOA)	335-67-1	既存化学物質	2-2659	パーフルオロアルキ ルカンボン酸(C=7 ~13)	_	・名称等を表示す べき危険物及び 有害物 ・名称等を通知す べき危険物及び 有害物	ı	ı	I	_
ペンタデカフルオロ オクタン酸アンモニ ウム(APFO)	3825-26-1	既存化学物質	2-1195	パーフルオルオクタ ン酸アンモニウム塩		・名称等を表示すべき危険物及び有害物・名称等を通知すべき危険物及び有害物	有害物質	水質基準 物質	有害物質	特定有害物質
ペンタデカフルオロ オクタン酸ナトリウム	335-95-5	既存化学物質	2-1176	フルオロアルキル (C5~12)カルボン 酸塩(Na, K, Ca)	_	_	有害物質	水質基準 物質	有害物質	特定有害物質
ペンタデカフルオロ オクタン酸カリウム	2395-00-8	既存化学物質	2-1176	フルオロアルキル (C5~12)カルボン 酸塩(Na, K, Ca)	_	_	_	_	_	_
ペンタデカフルオロ オクタン酸銀	335-93-3	_	_	_	_	_	_	_	_	_
トリス(ペンタデカフ ルオロオクタン酸)ク ロム(III)	68141-02-6	_	_	_	_	_	_	_	_	_
ペンタデカフルオロ オクタン酸トリエチル エタンアミニウム	98241-25-9	_	_	_	_	_	_	_	_	_
ヘプタデカフルオロ- 1-デカノール(8:2 FTOH)	678-39-7	既存化学物質	2-2402	2-パーフルオロア ルキル(C=4~16) エタノール	_	_	_	_	_	_
ヘプタデカフルオロ デシル=アクリラー ト(8:2 FTAC)	27905-45-9	_	_	_	_	_	_	_	_	_
リン酸ビス(2-(ヘプ タデカフルオロオクチ ル)エチル))	678-41-1	_	_	_	_	_	_	_	_	_
1-ヨードヘプタデカフ ルオロオクタン	507-63-1	既存化学物質	2-90	パーフルオルアルキ ル(C4~23)アイオ ダイド	_	_	_	_	_	_
-:該当する情報なし										

(b) 医薬化学品における代替

日本での製造に関するものとして、医薬化学品における代替について整理した。

リスク管理評価書案を確認したところ、以下の記載があり、PFOI を利用する方法が PFOB を生産する唯一の合理的な方法と考えられることから医薬品を製造する目的で PFOB を製造するための PFOI の使用を適用除外にすべきと結論されている。

- ペルフルオロオクチルブロミド (PFOB) は、ペルフルオロオクチルヨージド (PFOI) から製造される。PFOB は水素化ペルフルオロオクチル (PFOH; C8F17-H) から技術的に製造することができた。
- ・ しかし、PFOH の製造は PFOI を原料として必要とし、PFOH の使用は PFOI に比べて商業的に実行可能な収率が不十分であった。さらに、PFOH との反応は約 500 で起こるが、PFOI は 140 で反応が起こり、PFOI との反応はよりエネルギー効率の良いものになる。
- ・ したがって、PFOI から始まる現在の生産プロセスは、PFOB を生産する唯一の合理 的な方法と考えられている。

- ・ PFOB は、慢性閉塞性肺疾患(COPD)及び膵嚢胞線維症(CF)患者の治療のための特定の"微小孔性"医薬品を製造するための加工助剤として主に使用されているが、追加の医薬用途の研究が進行中である。PFOBの使用により、医薬品微孔質球を作製することが可能になり、効果を最大にするために2種以上の医薬品を望ましい比で1つの粒子に組み入れることができる。企業による推定によれば、PFOIは数ppmの範囲で残渣として最終薬剤中に存在し得る。
- ・ 現時点では、この特定の用途の製品性能を満たす PFOB の代替品はない。
- ・ PFOI は、日本の単一サイトで 6:2 フルオロテルマー系物質の製造中に生成され、 その後、分離された中間体として PFOB 製造のために日本の別の場所に輸送され る。その後、PFOB は関連する医薬製品を製造するために、米国内の 2 箇所に運ば れる。

(c) PFOA 関連物質の性状(主に分解性)

PFOA 関連物質のうち、側鎖フッ素化ポリマーの分解についての情報を整理した。 POPRC12 の後に、スイスから提供された側鎖フッ素化ポリマーの分解に関する情報⁸を確認したところ、以下の記載があった。

・ 入手可能な全研究結果によれば、のフルオロテロマーベースの側鎖フッ素化ポリマー (例えばフルオロテロマーベースのアクリレートポリマーおよびウレタンポリマー) の好気性土壌中分解 (好気性土壌中の生物的分解(Russell et al., 2008⁹; Washington et al., 2009¹⁰; Rankin et al., 2014¹¹)及び水中の非生物的分解(Washington et al., 2015¹²)) が報告されている。分解半減期の不確実性が高い (数十年~数千年) ため、現在の時間枠 (数十年) におけるフルオロテロマーベースの側鎖フッ素化ポリマーの (生) 分解による PFOA 生成量の信頼性の高い推定はまだ不可能であり (Russell et al., 2008, 2010¹³; Washington et al., 2009, 2015; Rankin et al., 2014)、PFOA 生成量の信頼性の高い推定ができないことは、そのような低い分解速度を測定することに伴う重要な課題である。また、実験室の条件が実際の環境 (温度、微生物群

http://chm.pops.int/The Convention/POPs Review Committee/Meetings/POPRC12/POPRC12Followup/PFOAC omments/tabid/5950/Default.aspx

⁸

⁹ Russell MH, Berti WR, Szostek B, Buck RC. 2008. Investigation of the biodegradation potential of a fluoroacrylate polymer product in aerobic soils. Environ Sci Technol 42, 800–7.

¹⁰ Washington JW, Ellington J, Jenkins TM, Evans JJ, Yoo H, Hafner SC. 2009. Degradability of an acrylate-linked fluorotelomer polymer in soil. Environ Sci Technol 43, 6617–23.

Rankin K, Lee H, Tseng PJ, Mabury SA. 2014. Investigating the biodegradability of a fluorotelomer-based acrylate polymer in a soil-plant microcosm by indirect and direct analysis. Environ Sci Technol 48, 12783-12790.

Washington JW, Jenkins TM. 2015. Abiotic hydrolysis of fluorotelomer-based polymers as a source of perfluorocarboxylates at the global scale. Environ Sci Technol. 49, 14129-14135.

¹³ Russell MH, Berti WR, Szostek B, Wang N, Buck RC. 2010. Evaluation of PFO formation from the biodegradation of a fluorotelomer-based urethane polymer product in aerobic soils. Polym Degrad Stabil 95, 79–85.

集、結晶構造の変化、時間の経過に伴うポリマーのバイオアベイラビリティ、他の 物質の共存など)をどの程度反映しているかは分からない。さらに、試験されたも のよりも多くの種類の側鎖フッ素化ポリマーが製造されている。

・ しかし、適切な処理(例えば、高温焼却)をされない全てのフルオロテロマーベースの側鎖フッ素化ポリマーは、長期間で最終的に PFCA 前駆体に分解されることに留意すべきである。上記で詳述したように、これらの前駆体のいくつかはさらに分解して環境中および生物中に PFOA を形成し得る。したがって、8:2 およびより長鎖のフルオロテルマーベースの側鎖フッ素化ポリマーの(生)分解は、環境および生物中の PFOA の長期的な供給源となり得る。過去に生産され、一部の国(上記参照)ではまだ生産されているかもしれない長鎖フルオロテルマー系の側鎖フッ素化ポリマーの膨大な量を考慮すると、これらのポリマーの(生)分解は長期的には環境中の PFOA の実質的な供給源となり得る。今後の研究では、製造、使用および環境中で放出される側鎖フッ素化ポリマーの量および種類と同様に、これらの側鎖フッ素化ポリマーの様々な物理的および物理化学的特性がバイオアベイラビリティおよび(生)分解の時間スケールにどのように影響するかを理解することが焦点となり得る。

また、PFOA 関連物質の生分解性に関して、POPRC12 の後にスイスから提供された情報 として、10:2 フルオロテロマー化合物(10:2 FTUCA (fluorotelomer unsaturated carboxylic acids))に関する論文 14 があったため、内容を確認したところ、以下の記載があった。

10:2 FTUCA の底質での微生物による分解を調べた試験で、35 日後の底質中に残留していた 10:2 FTUCA は 0.62%であった。分解生成物としては、7:3 FTCA (fluorotelomer carboxylic acid)、8:2 FTUCA、PFHpA (prefluoroheptanoic acid)、PFOA、PFNA (perfluorononanoic acid) 及び PFDA (perfluorodecanoic acid) が検出され、それぞれ 2.1%、2.0%、0.37%、1.9%、1.7%及び 28%であった。検出された分解生成物の底質への吸着が確認された。

(3) ジコホルに関する検討

ジコホルについて、会期間作業グループより提供されたリスク管理評価書案 (第二次及び第三次ドラフト)の確認を行った。また、リスク管理評価書案 (UNEP/POPS/POPRC.13/2)について、国内規制措置や代替方法に関する確認を行った。

 $^{^{14}}$ Myers AL and Mabury SA. (2010), Fate of fluorotelomer acids in a soil–water microcosm. Environ Toxicol Chem, 29: 1689–1695. doi:10.1002/etc.211

1) リスク管理評価書案への対応

リスク管理評価書第二次ドラフト及び第三次ドラフトのいずれにおいても、結論として、 適用除外なしの附属書 A (廃絶) への記載が提案されており、経済産業省担当官と協議の結 果、日本からは特にコメントの作成は行わないこととなった。

2) リスク管理評価書案への対応

ジコホルについて、会期間作業グループより提供されたリスク管理評価書案 (UNEP/POPS/POPRC.13/2) について、規制措置や代替方法に関する確認を行った。規制措置としてはリスク管理評価書案において、適用除外なしの附属書Aへの収載が提案された。

日本における規制状況としては、化審法で第一種特定化学物質に、農薬取締法で販売禁止 農薬 (二・二・一・トリクロロー・・ービス (四-クロロフェニル) エタノール (別名ケルセン又はジコホール) に指定されている。なお、ジコホルには p,p'体 (CAS 115-32-2) と o,p'体 (CAS 10606-46-9) があるが、化審法、農薬取締法で指定されているのは p,p'体である。

代替方法について確認したところ、以下の記載があった。

- ・ 異なる地理および気候条件内で異なる作物を栽培している多数の国によるジコホルの製造、販売及び使用の禁止がなされていることは、実施可能な代替が存在することを示している。
- ・ 附属書 F に基づく加盟国・オブザーバーからの提供情報等において、ジコホルに替わる 25 種類以上農薬、天敵の導入等の生物防除法が、技術的に実現可能で、入手可能である。

さらに、附属書 B (制限) への記載と適用除外についても検討されているが、いずれも提案はされていない。リスク管理評価書案を確認したところ、以下の理由が記載されていた。

- ・ 製造と使用の制限は、環境及び人の健康保護の観点において廃絶よりも効果的ではないが、使用されるジコホルの総量と特定の状況下でのばく露を減少させることはできる。
- ・ 特定の作物/害虫の組み合わせに対して技術的に実現可能な代替が利用できない場合、ばく露と経済的影響を抑えるように、ジコホルの使用を重要な用途のみに制限することも可能である。
- ・ しかし、附属書 F に基づく情報提供においては、適用除外を必要とするような重要な用途に関する情報は提供されなかった。

3.2.2 国内検討会議の開催

大学教授や研究機関などの専門家らによる検討会議を開催し、POPRC12から POPRC13に向けて行われている会期間作業の動向・議論を踏まえ、POPRC13対応について有識者の意見を聴取し、取りまとめを行った。また、POPRC13の結果について有識者への報告を行った。

(1) 第1回国内検討会儀

2017 年 9 月 21 日に第 1 回国内検討会議を開催し、POPRC13 への対応について有識者の意見を聴取し、取りまとめを行った。

PFHxS とその塩及び PFHxS 関連物質の提案文書について説明した。残留性については、PFHxS のデータがなく、PFOS 及び PFOA からのリードアクロスで残留性ありと結論づけていることに関して、過去にリードアクロスだけで POPs に指定された物質はないので、POPs条約におけるリードアクロスの適用性についての基本方針が必要であるとの結論になった。生物蓄積性については、人での蓄積事例がポイントになっていると思われるので、根拠論文に信頼性があることが必要との結論になった。

ジコホルのリスク管理評価書案について、適用除外なしに附属書 A へ追加するとの提案であることを説明した。特にコメント無く了承された。

PFOA とその塩及び PFOA 関連物質のリスク管理評価書案について、対象となる物質の定義及び提案されている適用除外を説明した。規制段階では対象となる物質のリストが必要との結論になった。

(2) 第2回国内検討会儀

2017年11月21日に第2回国内検討会議を開催し、POPRC13の結果報告を行った。

PFHxS とその塩及び PFHxS 関連物質の提案文書について、POPRC13 における日本の対応と各国からの主なコメント内容を報告した。残留性のリードアクロスに関する記載は削除されたこと、附属書 D のスクリーニング基準を満たすとして、附属書 E (リスクプロファイル) の段階へ進むこととなったことを報告した。

ジコホルのリスク管理評価書案について、日本の対応と各国からの主なコメント内容を報告した。議論の結果、附属書 A (適用除外なし)で COP に勧告することが決定したことを報告した。

PFOA とその塩及び PFOA 関連物質のリスク管理評価書案について、日本の対応と各国からの主なコメント内容を報告した。議論の結果、附属書 A 又は B (PFOI の使用等の適用除外あり)で COP に勧告されること、適用除外が提案されていた一部の用途については、さらなる情報収集を実施し、COP への勧告内容を POPRC14 で検討すること及び非意図的生成については、十分な情報が無いという指摘を受け、会期間作業としてさらなる情報収集を行うこととなったことを報告した。

4. まとめ

本事業において、POPs条約、PIC条約及び水俣条約に関係する国際会議における検討状況を調査した。また、これら3条約の着実な国内実施のために必要な基礎情報を収集・整理した。

4.1 化学物質管理関連情報の調査

2017年10月にローマにおいて開催されたPOPRC13の検討状況を調査するため、国内有識者を派遣するとともに、有識者に同行して情報収集・分析など委員会対応に必要なサポートを行った。会期間作業における議論についても状況を把握し、情報収集・分析など、必要なサポートを行った。また、2017年9月にジュネーブにおいて開催された第1回水俣条約COP、2017年10月にローマにおいて開催されたPICCRC13にそれぞれ参加し、検討状況などの最新情報を入手した。

4.2 POPs 規制動向に関する詳細調査

POPRC13 では新たな追加物質としてノルウェーから PFHxS (ペルフルオロヘキサンスルホン酸)とその塩及び PFHxS 関連物質が提案された。国内法令での措置状況、有害性評価・リスク評価等の実施状況等とその結果、製造、使用量等について調査した。また、提案文書に記載された情報等に基づき、POPs 条約附属書 D に規定されるスクリーニング基準に基づく項目のうち残留性及び生物蓄積性情報について、基準を満たすかどうかを検討した。検討の結果、残留性について PFHxS についてはスクリーニング基準を満たすと考えられた。生物蓄積性については、総合的にはスクリーニング基準を満たすと考えられた。

POPRC13 でリスク管理評価書案の検討が行なわれた PFOA とその塩及び PFOA 関連物質について、リスク管理評価書案へのコメント案の作成を行うとともに、規制措置や代替方法等に関する情報を整理した。また、必要に応じて PFOA 関連物質の性状(主に分解性)等について調査を行った。



Distr.: General 13 July 2017 Original: English



Stockholm Convention on Persistent Organic **Pollutants**

Conference of the Parties to the Stockholm **Convention on Persistent Organic Pollutants Eighth meeting**

Geneva, 24 April-5 May 2017

Report of the Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants on the work of its eighth meeting

Introduction

By decisions BC-12/23, RC-7/13 and SC-7/31, the conferences of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants, respectively, decided to hold the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention back to back from 24 April to 5 May 2017 (hereinafter, "the 2017 meetings"). The conferences of the Parties also decided that their 2017 meetings would "include joint sessions, where appropriate, on joint issues" and would feature a high-level segment of no more than one day's duration.

I. Opening of the meetings (agenda item 1)

- Ms. Abiola Olanipekun, Chief, Scientific Support Branch of the Secretariat, acting as master of ceremonies, welcomed participants to the 2017 meetings.
- The meetings began with a performance of Swiss yodelling.

A. **Opening remarks**

- Opening remarks were made by Mr. Mohammed Oglah Hussein Khashashneh (Jordan), President of the Conference of the Parties to the Basel Convention, speaking also on behalf of Mr. Franz Perrez (Switzerland), President of the Conference of the Parties to the Rotterdam Convention, and Mr. Sam Adu-Kumi (Ghana), President of the Conference of the Parties to the Stockholm Convention; Mr. Rolph Payet, Executive Secretary of the Basel, Rotterdam and Stockholm conventions; Mr. Bill Murray, Executive Secretary of the Rotterdam Convention; Mr. Marc Chardonnens, State Secretary, Swiss Federal Office for the Environment; and Mr. Ibrahim Thiaw, Deputy Executive Director, United Nations Environment Programme (UNEP).
- In his remarks Mr. Khashashneh said that positive outcomes from the current meetings would be vital to addressing the enormous challenges faced by the world, which were exemplified by the figures showing the small fraction of chemicals that had undergone environmental assessments and the statistics on deaths from pesticide poisoning, particularly in developing countries, and on deaths among children under five years of age as a result of unhealthy environments and, notably, the effects of pollution. Progress in preventing and minimizing waste generation had been achieved through the approach, plans and guidelines developed and implemented under the Basel Convention,

demonstrating the benefits of cooperation with its sister chemical conventions and indeed its status as a model to be emulated with regard to implementation and compliance. As to the Rotterdam Convention, it was crucial to increase its effectiveness because chemicals meeting the requirements for listing in Annex III to the Convention were sometimes not listed. More determined efforts must also be made to enhance implementation of the Stockholm Convention through elimination of the chemicals listed thereunder. Concerning the review of the synergies arrangements, it showed that the synergies process had provided a model for policy consistency among the three conventions, particularly with regard to the life cycle of chemicals and wastes, and had achieved efficiencies in the implementation of the conventions. While national and regional synergies continued to need improvement, synergies at the international level had been remarkably successful, which might be seen as evidence supporting the inclusion of the Minamata Convention on Mercury in the same framework as the Basel, Rotterdam and Stockholm conventions.

- 6. In his remarks, Mr. Payet said that the outcomes of the 2017 meetings of the conferences of the Parties would be crucial to tackling the nexus between development and planetary health and, hence, to improving the quality of life in a sustainable environment. He had been encouraged by the spirit of commitment that had characterized the regional preparatory meetings organized with the support of the Government of Switzerland. The relevance of the three conventions to sustainable development and poverty eradication had been recognized in the 2030 Agenda for Sustainable Development, in several key decisions and resolutions adopted since the 2015 meetings by, among others, the International Conference on Chemicals Management, the United Nations Environment Assembly and the World Health Assembly, and in a report of the United Nations Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes. In addition, some of the fruits of private sector commitment to engage with Governments in seeking sustainable solutions would be showcased at the current meetings, at the first ever technology fair.
- 7. Urging the Parties to address the continued decrease in voluntary contributions to the conventions and the increase in arrears in assessed contributions for the core funding of the Secretariat, he thanked those donors that had remained strongly committed to supporting the conventions such as Australia, China, Denmark, the European Union, Finland, France, Germany, Japan, the Netherlands, Norway, the Republic of Moldova, Sweden and Switzerland. He also commended the Global Environment Facility (GEF) and its implementing agencies on making available the financial resources and technical expertise needed for updating national implementation plans and for the implementation of the Stockholm Convention, which, according to the needs assessment report to be considered by the Conference of the Parties, would require over \$4.3 billion for the period 2018–2022. He urged the GEF secretariat and donor countries to take into consideration the recommendations of the report when negotiating the seventh replenishment of the GEF trust fund.
- Mr. Murray, in his remarks, drew attention to the major impacts that agriculture had on the state of the environment and vice versa. While the projected increase in the world's population to 9.2 billion by 2050 would, he said, require a 50 per cent increase in global food production, some 80 per cent of it from land already under cultivation, the input-intensive approach of the past had proved unsustainable in view of its deleterious effects on natural resources and biodiversity. Meanwhile, many millions around the globe were currently facing extreme hunger and most of the worst affected depended directly or indirectly on agriculture for their livelihoods and were at the greatest risk from the adverse effects of climate change and hazardous pesticides, chemicals and wastes. The 2030 Agenda for Sustainable Development and the Paris Agreement on climate change, among other things, had placed food security and agriculture at the centre of the global development agenda but there was no standard solution. Successful approaches must be context-specific and tailored to the needs of particular regions or communities, drawing on traditional knowledge and advances in science and technology, which required greater cooperation and collaboration at all levels, as in the case of the synergies between the secretariats of the Basel, Rotterdam and Stockholm conventions, the results of which would be discussed in the coming days. Recalling the role of the Food and Agriculture Organization of the United Nations (FAO) in capacity development and institution building for national governance frameworks that reduced the risks to human health and the environment from pesticides and associated wastes while facilitating regional collaboration, he said that the technology fair and side events at the current meetings would provide opportunities to learn about partnerships and to share knowledge and experience in promoting the sound management of chemicals and wastes and a detoxified future.
- 9. Mr. Chardonnens, in his remarks, welcomed the participants to the 2017 meetings in the city of Geneva, which had a long history of hosting those championing the protection of nature and hoped to be home not only to the Secretariat of the Basel, Rotterdam and Stockholm conventions but also that of the Minamata Convention. The multilateral system, he said, had to adjust to meet the many new

challenges arising from the large-scale production and use of chemicals so as to ensure global governance frameworks that were more effective in protecting human health and the environment. To that end, the 2017 meetings offered an excellent opportunity to improve the effectiveness of the Basel, Rotterdam and Stockholm conventions through, among other things, the adoption of compliance mechanisms and decisions on the listing of hazardous chemicals and to strengthen the synergies between them. They also offered the opportunity to pave the way for additional synergies with the Minamata Convention, which could contribute to a more coherent effort by the international community to ensure the sound management and use of resources. Commending the Secretariat and the presidents of the three conferences of the Parties to the conventions on organizing the 2017 meetings, and expressing appreciation to UNEP and FAO for their support in furthering implementation, he called on the Parties, civil society and industry to support the multilateral processes in the intensive work of the coming two weeks. Given that communication over borders was important and fruitful, as evidenced by the prior informed consent procedure, he invited all participants to send the available postcards home to colleagues, friends and family to report about the meetings and their time in Geneva.

In his remarks Mr. Thiaw said that, in contrast to their predecessors, young people lived in a heavily polluted world in which the prospect of enjoying safe air and water in the future seemed remote. The humans that were destroying the planet through pollution were not doing enough to prevent the millions of pollution-related deaths, in which chemicals played a significant part. Chemicals unquestionably improved lives but their use across the planet was outpacing the efforts to assess and address their impact on humans, wildlife and the entire food chain. Swift action was needed yet the process was slow and difficult. The existence of irrefutable scientific data placed a moral responsibility on all stakeholders to act where doubt existed. To that end, a rethink in the life-cycle approach to chemicals and adaptation to react to new findings must be triggered, including by working in various ways with Governments, scientists, the private sector, schools and the general public. The power of concerted action had been proven with the Montreal Protocol on Substances that Deplete the Ozone Layer, as had the importance of precautionary action, which could furthermore generate profit through the increasing demand for true life-cycle alternatives and renewable energy, mobile technology and electric transport. The Basel, Rotterdam and Stockholm conventions provided a crucial opportunity for taking the collective action needed to phase out some of the world's worst pollutants. That opportunity to achieve the sound management of chemicals by 2020, add important new chemicals to the conventions and accomplish global progress must therefore be seized immediately to avoid regret later.

B. Regional statements

11. Representatives speaking on behalf of groups of countries and individual countries made general statements on the issues to be discussed during the meetings.

C. Formal opening

12. The thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention were formally opened at 11.45 a.m. on 24 April 2017 by Mr. Khashashneh, Mr. Perrez, and Mr. Adu-Kumi, respectively.

II. Adoption of the agenda (agenda item 2)

- 13. The Conference of the Parties to the Stockholm Convention adopted the following agenda for its eighth meeting on the basis of the provisional agenda set out in document UNEP/POPS/COP.8/1:
 - 1. Opening of the meeting.
 - 2. Adoption of the agenda.
 - Organizational matters:
 - (a) Election of officers;
 - (b) Organization of work;
 - (c) Report on the credentials of representatives to the eighth meeting of the Conference of the Parties.
 - 4. Rules of procedure for the Conference of the Parties.
 - 5. Matters related to the implementation of the Convention:

- (a) Measures to reduce or eliminate releases from intentional production and use:
 - (i) Exemptions;
 - (ii) DDT;
 - (iii) Polychlorinated biphenyls;
 - (iv) Brominated diphenyl ethers;
 - (v) Perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride;
- (b) Measures to reduce or eliminate releases from unintentional production;
- (c) Measures to reduce or eliminate releases from wastes;
- (d) Implementation plans;
- (e) Listing of chemicals in Annex A, B or C to the Convention;
- (f) Technical assistance;
- (g) Financial resources and mechanisms;
- (h) Reporting pursuant to Article 15;
- (i) Effectiveness evaluation;
- (j) Compliance;
- (k) International cooperation and coordination.
- Enhancing cooperation and coordination among the Basel, Rotterdam and Stockholm conventions.
- 7. Programme of work and budget.
- 8. Venue and date of the ninth meeting of the Conference of the Parties.
- Other matters.
- 10. Adoption of the report.
- 11. Closure of the meeting.
- 14. In adopting its agenda the Conference of the Parties agreed to discuss under item 9, Other matters, a possible memorandum of understanding between UNEP and the Conference of the Parties to the Stockholm Convention, the admission of observers to meetings under the Convention, guidelines on conduct for meeting participants and certification to be provided in connection with exports to non-Parties.
- 15. During the discussion of the agendas for the 2017 meetings one representative, speaking on behalf of a group of countries, said that the matter of memorandums of understanding should be set out as separate items on the agendas for the three meetings rather than be discussed under the agenda items for "other matters". He said that the issue had been brought up at previous meetings of the conferences of the Parties and that the Conference of the Parties to the Rotterdam Convention, as reflected in its decisions RC-6/15 and RC-7/14, adopted in 2013 and 2015, had already decided twice that such a memorandum of understanding would be necessary. Given the importance of the issue, it should be presented as a separate agenda item. One representative supported the proposal, but others opposed it. It was agreed that the matter would remain under other matters and that the proposal to list it as a separate item would be noted in the reports of the 2017 meetings.

III. Organizational matters (agenda item 3)

A. Attendance

16. The meeting was attended by representatives of the following 158 Parties: Afghanistan, Albania, Algeria, Angola, Antigua and Barbuda, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Belarus, Belgium, Belize, Benin, Bolivia (Plurinational State of), Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Burkina Faso, Burundi, Cabo Verde, Cambodia, Cameroon, Canada, Central African Republic, Chad, Chile, China, Colombia, Congo, Cook Islands, Costa Rica, Cote d'Ivoire, Croatia, Cuba, Cyprus, Czechia, Democratic People's Republic of Korea, Democratic Republic of the Congo, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador,

Estonia, Ethiopia, European Union, Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Greece, Guatemala, Guinea, Guinea-Bissau, Guyana, Honduras, Hungary, Iceland, India, Indonesia, Iran (Islamic Republic of), Iraq, Ireland, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kiribati, Kuwait, Lao People's Democratic Republic, Latvia, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Madagascar, Malawi, Maldives, Mali, Malta, Marshall Islands, Mauritania, Mauritius, Mexico, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Qatar, Republic of Korea, Republic of Moldova, Romania, Russian Federation, Saint Kitts and Nevis, Saint Lucia, Samoa, Sao Tome and Principe, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Slovakia, South Africa, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Switzerland, Syrian Arab Republic, Thailand, the former Yugoslav Republic of Macedonia, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Uganda, Ukraine, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, United Republic of Tanzania, Uruguay, Venezuela (Bolivarian Republic of), Viet Nam, Yemen, Zambia, Zimbabwe.

- 17. In addition, the meeting was attended by representatives of seven Parties that did not submit valid credentials: Barbados, Comoros, Djibouti, Kyrgyzstan, Lebanon, Rwanda, Suriname. It was also attended by representatives of two States that were not Parties to the Convention: the Holy See and the United States of America.
- 18. The following United Nations bodies and specialized agencies were represented as observers: Economic Commission for Europe, Food and Agriculture Organization of the United Nations, Global Environment Facility, International Labour Organization, United Nations Development Programme, United Nations Environment Programme, United Nations Industrial Development Organization, United Nations Institute for Training and Research, United Nations University, World Bank Group, World Health Organization.
- 19. The following intergovernmental organizations were represented as observers: Association of Southeast Asian Nations, Commission of the Economic Community of West African States, International Criminal Police Organization, League of Arab States, South Asia Cooperative Environment Programme, South Centre, World Trade Organization.
- The following Basel Convention regional and coordinating centres and Stockholm Convention regional and subregional centres were represented as observers: Basel Convention Coordinating Centre for Training and Technology Transfer for the Latin America and Caribbean Region (BCCC-Uruguay)/Stockholm Convention Regional Centre for Capacity-building and the Transfer of Technology (SCRC Uruguay); Basel Convention Coordinating Centre for Training and Technology Transfer for the African Region (BCCC-Africa); Basel Convention Regional Centre for Training and Technology Transfer for Arab States (BCRC-Egypt); Basel Convention Regional Centre for Training and Technology Transfer for Asia and the Pacific (BCRC-China)/Stockholm Convention Regional Centre for Capacity-building and the Transfer of Technology (SCRC-China); Basel Convention Regional Centre for Training and Technology Transfer for Central Europe (BCRC-Slovakia); Basel Convention Regional Centre for Training and Technology Transfer for French-speaking Countries in Africa (BCRC-Senegal)/Stockholm Convention Regional Centre for Capacity-building and the Transfer of Technology (SCRC-Senegal); Basel Convention Regional Centre for Training and Technology Transfer for South-East Asia (BCRC-SEA)/Stockholm Convention Regional Centre for Capacity-building and the Transfer of Technology (SCRC-Indonesia); Basel Convention Regional Centre for Training and Technology Transfer for the Caribbean Region (BCRC-Caribbean); Basel Convention Regional Centre for Training and Technology Transfer for the English-speaking African countries (BCRC-South Africa)/Stockholm Convention Regional Centre for Capacity-building and the Transfer of Technology (SCRC-South Africa); Basel Convention Regional Centre for Training and Technology Transfer for the South American Region (BCRC-Argentina); Pacific Regional Centre for Training and Technology Transfer for the Joint Implementation of the Basel and the Waigani Conventions in the South Pacific Region (SPREP); Stockholm Convention Regional Centre for Capacity-building and the Transfer of Technology (SCRC-Algeria); Stockholm Convention Regional Centre for Capacity-building and the Transfer of Technology (SCRC-Kuwait); Stockholm Convention Regional Centre for Capacity-building and the Transfer of Technology (SCRC-Spain); Stockholm Convention Regional Centre for Capacity-building and the Transfer of Technology (SCRC-Panama).
- 21. A number of non-governmental organizations were represented as observers. The names of those organizations are included in the list of participants (UNEP/CHW.13/INF/70-UNEP/FAO/RC/COP.8/INF/53-UNEP/POPS/COP.8/INF/66).

B. Election of officers

- 22. Introducing the sub-item, the President noted that the Parties would need to elect the officers of the three conferences of the Parties whose terms of office would start at the closure of the 2017 meetings, as well as officers and members of subsidiary bodies. Continuing the introduction the representative of the Secretariat outlined the information in documents UNEP/CHW.13/2, UNEP/FAO/RC/COP.8/2 and UNEP/POPS/COP.8/2, noting, among other things, that curricula vitae should be provided for nominees for membership on the Chemical Review Committee of the Rotterdam Convention and the Persistent Organic Pollutants Review Committee of the Stockholm Convention.
- 23. Following that introduction one representative said that in the past there had been some flexibility regarding the provision of curriculum vitae and that they should not be required because each Party had the right to decide who would best represent it. The President said in response that it was up to each region to decide on its nominations and that the requirement to submit curricula vitae had been communicated at the regional meetings that had been held in preparation for the 2017 meetings.
- 24. In accordance with rule 22 of the rules of procedure, the following members of the Bureau elected at the seventh meeting of the Conference of the Parties to the Stockholm Convention served during the eighth meeting of the Conference of the Parties:

President: Mr. Sam Adu-Kumi (Ghana)

Vice-Presidents: Mr. Andrew McNee (Australia)

Mr. Luis Ignacio Vayas Valdivieso (Ecuador)

Ms. Ana Berejiani (Georgia) Ms. Daina Ozola (Latvia)

Mr. Reginald Hernaus (Netherlands)

Mr. Marcus L. Natta (Saint Kitts and Nevis)

Mr. Ali Mohammed Ali Mahmoud (Sudan)

Mr. Nguyen Anh-Tuan (Viet Nam)

Mr. Ali Al-Dobhani (Yemen)

- 25. Pursuant to rule 22, Mr. McNee served as rapporteur.
- 26. Also in accordance with rule 22, the Conference of the Parties elected the following members of the new Bureau, whose terms would commence upon the closure of the current meeting and terminate upon the closure of the next ordinary meeting of the Conference of the Parties:

President: Mr. Mohammed Oglah Hussein Khashashneh (Jordan)

Vice-Presidents: Mr. Jean Claude Emene Elenga (Democratic Republic of the Congo)

Mr. Mehari Wondmagegn Taye (Ethiopia)

Ms. Ana Berejiani (Georgia)

Ms. Silvija Nora Kalnins (Latvia)

Mr. Reginald Hernaus (Netherlands)

Mr. Sverre Thomas Jahre (Norway)

Mr. Marcus L. Natta (Saint Kitts and Nevis)

Ms. Agustina Camilli (Uruguay)

Mr. Ali Al-Dobhani (Yemen)

27. Pursuant to rule 22, and in line with past practice and for the purposes of regional rotation, one of the two Vice-Presidents from the African region would serve as rapporteur. The Bureau would be informed of which one of the two would so serve.

C. Organization of work

- 28. The discussion summarized in the present section, on organization of work (agenda item 3 (b)), took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 29–33 below are replicated in the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 30–34, and in the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), paragraphs 28–32.
- 29. The three conferences of the Parties agreed to conduct their meetings in accordance with the scenario note set out in document UNEP/CHW.13/INF/1-UNEP/FAO/RC/COP.8/INF/1-UNEP/POPS/COP.8/INF/1, the schedule set out in document UNEP/CHW.13/INF/2-UNEP/FAO/RC/COP.8/INF/2-UNEP/POPS/COP.8/INF/2 and the arrangements for the high-level segment described in document UNEP/CHW.13/INF/3-UNEP/FAO/RC/COP.8/INF/3-UNEP/POPS/COP.8/INF/3. The schedule and conduct of the meetings would be adjusted by the bureaux each day, as necessary, in the light of the progress of the meetings.
- 30. In accordance with the agreed arrangements, and as described in the scenario note, the conferences of the Parties to the three conventions would hold both joint and separate sessions during their meetings. During the joint sessions, the conferences of the Parties would discuss cross-cutting issues affecting at least two of the three conventions. In addition, the conferences of the Parties would establish such joint and separate contact and other groups as they deemed necessary for the various meetings, including a joint contact group on budget matters. All decisions would be adopted pending confirmation from the contact group on budget matters that any activities contemplated by the decisions had been taken into account in the proposed programmes of work and budgets for the biennium 2018–2019. The total number of contact groups meeting at any one time would be limited to facilitate participation by all delegations. The conferences of the Parties also agreed that the presidents of the three conferences would take it in turn to preside over joint sessions and that each, when so presiding, would act on behalf of all three.
- 31. A high-level segment of the meetings would be held on the afternoon of 4 May and the morning of 5 May. A ministerial dinner would take place on the evening of 4 May. A report on the high-level segment is set out in annex II to the present report.
- 32. In carrying out their work at the current meetings, the conferences of the Parties had before them working and information documents pertaining to the various items on the agendas for the meetings. Lists of those documents for the Basel, Rotterdam and Stockholm conventions, respectively, arranged according to the agenda items to which the documents pertain, are set out in information documents UNEP/CHW.13/INF/4, UNEP/FAO/RC/COP.8/INF/4 and UNEP/POPS/COP.8/INF/4, respectively.
- 33. During discussion of the organization of work one representative, speaking on behalf of a group of countries, expressed concern that there might not be sufficient time for careful consideration of all issues in plenary sessions. He also expressed concern with regard to the scheduling of a single session of the meeting of the Conference of the Parties to the Rotterdam Convention on Thursday, 27 April, with the remaining sessions of that meeting to take place the following week, saying that as had been previously agreed the meetings of the conferences of the Parties should be held back to back, i.e., one after the other. He concluded by voicing concern that some documents had been circulated late

D. Credentials

- 34. The discussion summarized in the present section, on credentials (agenda item 3 (c)), took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 35–38 below are replicated in the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 36–39, and in the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), paragraphs 34–37.
- 35. Introducing the sub-item, the President said that during the period leading up to the 2017 meetings the bureaux of the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions had agreed to take the same common approach to their consideration of credentials for the current meetings as had been taken during the 2015 meetings of the conferences of the Parties to the

three conventions. Pursuant to that approach each Bureau would accept original credentials in good order as well as copies, on the understanding that, in the case of the latter, originals would be submitted as soon as possible.

- 36. Continuing the introduction, the representative of the Secretariat outlined the requirements in respect of credentials set out in rule 18 of the rules of procedure of the Conference of the Parties to the Basel Convention, rule 19 of the rules of procedure of the Conference of the Parties to the Rotterdam Convention and rule 19 of the rules of procedure of the Conference of the Parties to the Stockholm Convention, saying that in accordance with those rules the bureaux of the Basel, Rotterdam and Stockholm conventions would examine the credentials of the representatives of the Parties present at the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention, respectively, and that each Bureau would present its report to its Conference of the Parties on the afternoon of Thursday, 4 May.
- 37. The President added that the three presidents were of the view that credentials were essential to multilateral environmental negotiations and served an important function that should be taken seriously. At the current meetings, he said, it would be important to have an early indication of possible problems with regard to credentials, and he therefore called on Parties to submit the credentials of their representatives by 1 p.m. on Wednesday, 26 April. Information on the status of credentials would be provided on Friday 28 April.
- 38. Also under the item it was announced that, as at the start of the 2017 meetings, there were 185 Parties to the Basel Convention, 157 Parties to the Rotterdam Convention and 181 Parties to the Stockholm Convention. At a later stage in the meetings, on the morning of 2 May 2017, it was announced that Turkey had recently ratified the Rotterdam Convention and would deposit its instrument of ratification in the near future.
- 39. On 28 April 2017 the representative of the Secretariat presented the report of the Bureau on the credentials of representatives as at noon on that day, indicating that the Bureau had examined the credentials of the representatives of the 162 Parties to the Stockholm Convention that had registered for the meeting to date and had found that those of 152 had been issued by a Head of State or Government or a minister for foreign affairs and were therefore in good order. The credentials of 138 of those 152 representatives were originals, while 14 were copies that were accepted on the understanding that originals would be submitted as soon as possible.
- 40. It was also reported that the following 10 Parties had not submitted credentials for their representatives: Albania, Comoros, Djibouti, Kyrgyzstan, Lebanon, Libya, Qatar, Rwanda, Suriname, United Arab Emirates. The Conference of the Parties adopted the report of the Bureau on credentials.
- 41. On the afternoon of 5 May 2017 the representative of the Secretariat presented the report of the Bureau on the credentials of representatives as at 1 p.m. on that day, indicating that the Bureau had further examined the credentials of the representatives of the 165 Parties to the Stockholm Convention that had registered for the meeting to date and had found that those of 158 had been issued by a Head of State or Government or a minister for foreign affairs and were therefore in good order. The credentials of 147 of those 158 representatives were originals, while 11 were copies that were accepted on the understanding that originals would be submitted as soon as possible.
- 42. It was also reported that the following seven Parties had not submitted credentials for their representatives: Barbados, Comoros, Djibouti, Kyrgyzstan, Lebanon, Rwanda, Suriname. Those seven Parties were therefore participating as observers in the eighth meeting of the Conference of the Parties and would be recorded as such in the report of the meeting and list of participants.
- 43. The Conference of the Parties adopted the report of the Bureau on credentials, which superseded the report adopted on 28 April 2017.

IV. Rules of procedure for the Conference of the Parties (agenda item 4)

44. Introducing the item, the representative of the Secretariat recalled that at its first meeting the Conference of the Parties had adopted its rules of procedure, as set out in the annex to decision SC-1/1, in their entirety with the exception of the second sentence of paragraph 1 of rule 45. That sentence, which provided for the adoption of decisions on substantive matters by a two-thirds majority vote in the absence of consensus, had been enclosed in square brackets to indicate that it had not been adopted. At its second through seventh meetings the Conference of the Parties had considered the same issue and had agreed to defer adopting a formal decision on that matter.

45. As at previous meetings, the Conference of the Parties agreed that it would not adopt a formal decision on the item at the current meeting, that the square brackets around the second sentence of paragraph 1 of rule 45 would remain in place and that, until it decided otherwise, it would continue to decide substantive matters by consensus.

V. Matters related to the implementation of the Convention (agenda item 5)

A. Measures to reduce or eliminate releases from intentional production and use

1. Exemptions

- 46. The representative of the Secretariat introduced the sub-item, highlighting some of the information presented in document UNEP/POPS/COP.8/4, recalling that, in accordance with paragraph 4 of Article 4 of the Convention, all registrations of specific exemptions expired five years after the date of entry into force of the Convention with regard to a particular chemical. Accordingly, the Secretariat had notified the Parties that the initial five-year period for registrations of specific exemptions for endosulfan would end on 27 October 2017 for those Parties for which the amendment had entered into force on 27 October 2012.
- 47. In the ensuing discussion one representative, speaking on behalf of a group of countries, said that it was encouraging to note that both the number of specific exemptions and the number of Parties having registered them was decreasing, indicating that Parties were replacing persistent organic pollutants with safer alternatives. He strongly urged Parties to continue their efforts in that regard. One representative, however, noted that most developing countries had not yet completed inventories on new persistent organic pollutants, suggesting that there might be an increase in requests for exemptions once they had done so. Another representative said that there should be more active communication with the Secretariat and between Parties to facilitate the elimination of persistent organic pollutants.
- 48. Following the discussion the Conference of the Parties adopted the draft decision set out in document UNEP/POPS/COP.8/4, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 49. Decision SC-8/1, on exemptions, as adopted by the Conference of the Parties, is set out in annex I to the present report.

2. DDT

- 50. The representative of the Secretariat introduced the sub-item, outlining the information in document UNEP/POPS/COP.8/5 and reporting that in accordance with the process adopted in decision SC-3/2 the expert group on DDT had met in November 2016 and produced a report for use by the Conference of the Parties in its evaluation of the continued need for DDT for disease vector control. The group had concluded that there was a continued need for DDT for indoor residual spraying in specific settings for disease vector control where locally safe, effective and affordable alternatives were still lacking and was recommending improvements in national reporting on DDT, national capacity for research and resistance monitoring and in the pilot testing and scaling up of existing alternatives to DDT. Information from the World Health Organization (WHO) was before the Parties, as were two reports from UNEP on the implementation of the road map for the development of alternatives to DDT, and the Global Alliance for the Development and Deployment of Products, Methods and Strategies as Alternatives to DDT for Disease Vector Control. The Secretariat, with financial support from France, had developed a toolkit for the sound management of DDT for disease vector control, which was available on the Convention website.
- 51. The representative of UNEP introduced the reports submitted by the organization on the implementation of the road map and the Global Alliance, which it had led, and the representative of WHO reported briefly on the information that it had submitted for the current meeting.
- 52. The representative of UNEP said that the reports showed the importance of collaboration in finding suitable alternatives to DDT, saying that cooperation with the Secretariat had led to the concrete results outlined in the reports. The reports also contained information on collaboration with partners, including non-governmental organizations, and activities related to the Global Monitoring Plan. She underlined that funding for the road map had been limited and that difficulties had been experienced in terms of reviewing progress in its implementation owing to a lack of indicators,

milestones and deadlines and insufficient data. Finally, she appealed for nominations to the vacant positions on the Advisory Committee for the Global Alliance.

- 53. The representative of WHO said that the progress in reducing malaria rates over the past 15 years was threatened by the increasing frequency and intensity of vector resistance to insecticides. She highlighted the work of the WHO Vector Control Advisory Group, which reviewed new vector-control paradigms and technologies. There were new tools in the pipeline, but they needed to be more affordable. She drew attention to the development by WHO of a report entitled *Global Vector-Control Response 2017–2030*.
- 54. In the ensuing discussion, several representatives expressed appreciation for the work carried out by UNEP, WHO and the DDT expert group and the utility of their findings.
- 55. Several representatives reported that DDT use had already been banned fully in their countries, was restricted to certain domains, had not occurred for several years, or had been significantly reduced with further reductions planned. Several representatives said that there was a need for safe and cost-effective alternatives to DDT, with one representative from a malaria-free country expressing interest in alternatives owing to a potential threat of infection via neighbouring countries. One representative called for increased financial support for the implementation of the road map itself, particularly for the search for such alternatives.
- 56. While encouraging all Parties to make further efforts to replace DDT with less hazardous alternatives or methods, one representative, speaking on behalf of a group of countries, congratulated the African region for the progress that it had made and India on the expected termination of the use of DDT for leishmaniasis vector control in 2017.
- 57. Two representatives of countries that no longer allowed the use of DDT called for technical assistance to eliminate DDT that entered their countries illegally, welcoming, along with another, the call for technical, financial and other assistance in the draft decision in document UNEP/POPS/COP.8/5.
- 58. One representative, speaking on behalf of a group of countries, proposed an amendment to the draft decision with a view to ensuring the long-term sustainability of vector control programmes.
- 59. Following the discussion, the Conference of the Parties adopted the draft decision set out in document UNEP/POPS/COP.8/5, as orally amended, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 60. Decision SC-8/2, on DDT, as adopted by the Conference of the Parties, is set out in annex I to the present report.

3. Polychlorinated biphenyls

- Introducing the sub-item, the President recalled that under the Convention Parties had to eliminate the use of polychlorinated biphenyls (PCBs) in equipment by 2025 and ensure the environmentally sound management of wastes containing or contaminated with PCBs by 2028. Every four years, within the same time frame as the transmission of reports pursuant to Article 15, the Conference of the Parties was to review progress towards the elimination of PCBs. The last such review had taken place at the seventh meeting of the Conference of the Parties, when it had been noted that many Parties were significantly behind in their efforts to meet those deadlines, and the next would take place at the ninth meeting. Continuing the introduction the representative of the Secretariat, outlining the information in document UNEP/POPS/COP.8/6, reported that in response to decision SC-7/3 the UNEP Chemicals and Wastes Branch had prepared in consultation with the advisory committee of the Polychlorinated Biphenyls Elimination Network (PEN) and the Secretariat a consolidated assessment report (UNEP/POPS/COP.8/INF/10) on efforts to eliminate PCBs for consideration by the Conference of the Parties at the current meeting, based on information submitted by Parties pursuant to Article 15 and paragraph (g) of part II of Annex A to the Convention and the preliminary assessment of efforts to eliminate PCBs. The consolidated assessment had also been made available for use by the effectiveness evaluation committee. The report set out a number of recommendations on the management and elimination of PCBs, including the establishment of a mechanism for monitoring progress in achieving those goals.
- 62. The representative of UNEP then reported on work of PEN, saying that it had been active in providing tools to assist in PCB identification, inventorying and phase-out. He said that PEN had updated and revised guidance documents, developed project concepts and expanded its membership along with that of its advisory committee. Under the theme "PCB A Forgotten Legacy", a set of materials had been developed to highlight to Parties the need to continue efforts to phase out PCBs. In

addition to strengthening regional delivery and support, two new membership positions within the advisory committee had been included in the terms of reference for regional centres of the Stockholm and Basel conventions. He also outlined the report entitled "Consolidated Assessment of Efforts made Toward the Elimination of Polychlorinated Biphenyls", in which the advisory committee had actively participated. The seventh meeting of the advisory committee, held in December 2016, had highlighted that countries were far from reaching the Convention goals of eliminating the use of PCBs by 2025 and achieving the environmentally sound management of PCB wastes by 2028 and that realistic and urgent global and national strategies must be launched as soon as possible.

- 63. In the ensuing discussion several representatives, including one speaking on behalf of a group of countries, expressed appreciation for the work of the UNEP Chemicals and Waste Branch, PEN and the Secretariat in, among other things, developing PCB-related guidance and awareness-raising materials. The representative speaking on behalf of a group of countries welcomed the fact that the report on PEN activities had been taken into account in the effectiveness evaluation, while another highlighted the importance of the work conducted by PEN in the area of open applications. One representative said that his country wished to continue its technical cooperation with PEN and another that additional resources should be allocated to PCB identification and elimination efforts. More focus should also be placed on raising awareness of the negative health effects of PCBs, identification of PCB-containing items and practical solutions for their elimination.
- 64. Many representatives expressed gratitude for the technical and financial assistance provided by GEF, the United Nations Development Programme (UNDP), the United Nations Industrial Development Organization (UNIDO) and UNEP to promote the efforts of Parties to achieve the two key goals of elimination of the use of PCBs by 2025 and the environmentally sound management of PCB wastes by 2028. One representative added that her country had achieved progress towards PCB elimination thanks to support received from the Convention's regional centre and from a public-private partnership arrangement. Another representative, highlighting some of the data reproduced in the report of the UNEP Chemicals and Waste Branch, said that sustainability of the results achieved through GEF-funded projects relating to PCB elimination was crucial and that it would therefore be useful to have information on such funding going forward. Efforts should be made, he added, to involve the private sector in national PCB elimination activities and to strengthen the capacity of regional centres to engage in such activities. One representative said that it was necessary to follow scientifically sound work methods and use sound management of PCB liquid wastes. She also favoured the idea of an international conference on the subject of PCB wastes.
- 65. With an emphasis on PCB disposal and elimination as a concern of high priority, numerous representatives described their countries' efforts and plans to that end, as well as the results achieved to date. Examples of those efforts included the development of appropriate guidelines and legal and regulatory frameworks, the conduct of PCB inventories and projects for the environmentally sound management of PCBs and for the reduction of PCB-contaminated oil and equipment. In acknowledging the need for enhanced efforts if the 2025 and 2028 target deadlines were to be met, many representatives said that more robust technical and financial assistance would be necessary, especially in the case of developing countries.
- 66. One representative said that PCBs had been eliminated from her country thanks to the support it had received but noted the magnitude of the challenge of eliminating PCBs from around the globe in the light of existing data showing how little had been destroyed. Another suggested that consideration should be given to developing PCB monitoring, control, management and substitution projects employing green and sustainable chemistry as a means of protecting human health and the environment. One also suggested that regional PCB disposal centres should be established.
- 67. Numerous representatives expressed support for the establishment of a small intersessional working group to prepare a report on progress towards PCB elimination for consideration by the Conference of the Parties at its ninth meeting, with a number, including one speaking on behalf of a group of countries, also supporting the request for the Secretariat to develop guidance and a road map for the implementation of plans for the environmentally sound management of PCBs throughout their life cycles. Another representative speaking on behalf of a group of countries said that it would be more efficient for the Secretariat, rather than a small intersessional working group, to prepare the report on progress in the elimination of PCBs.
- 68. There was general support for the draft decision, although one representative, speaking on behalf of a group of countries and supported by others, proposed an amendment to emphasize the need for Parties to intensify their efforts to meet the 2025 and 2028 goals, as well as amendments in support of its view that any report on progress achieved towards PCB elimination would be best prepared by the Secretariat. One representative opposed the latter amendments, while another proposed the

inclusion of wording focused on PCBs in open applications, which she and other representatives had identified as a particular problem requiring more attention than closed applications. Another representative suggested the addition of a new paragraph to the draft decision that would highlight the need for developing countries and countries with economies in transition to receive technical assistance and technology transfer for building their capacities for the environmentally sound management of PCBs.

- 69. Referring to the work of PEN, the representative of the United Nations Institute for Training and Research (UNITAR) said that UNITAR had provided input on its activities at the seventh meeting of the advisory committee in December 2016. He said that PEN was more than a forum for information exchange; it also sought action-oriented alternatives, bearing in mind the work to be undertaken to reach the goals of the Convention. Despite limited resources, UNEP and PEN had developed tools to assist countries to address the issue in a sound manner. UNITAR reiterated its support for PEN and requested Parties and others to do the same.
- 70. Following the discussion the Conference of the Parties requested the Secretariat, in consultation with interested Parties, to prepare for its consideration a revised version of the draft decision set out in document UNEP/POPS/COP.8/6, taking into account the discussions in plenary.
- 71. Subsequently the Conference of the Parties adopted a revised version of the draft decision, as orally amended, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 72. Decision SC-8/3, on polychlorinated biphenyls, as adopted by the Conference of the Parties, is set out in annex I to the present report.

4. Brominated diphenyl ethers

- 73. The representative of the Secretariat introduced the sub-item, saying that at the current meeting the Conference of the Parties, pursuant to paragraph 2 of parts IV and V of Annex A and decision SC-6/3, was to evaluate the progress that Parties had made towards achieving their ultimate objective of the elimination of hexabromodiphenyl ether and heptabromodiphenyl ether and tetrabromodiphenyl ether and pentabromodiphenyl ether and to review the continued need for the exemptions for those chemicals. To facilitate the work of the Conference of the Parties in undertaking the review, the Secretariat had prepared a report based on information submitted by Parties and others, including information on Parties' experience in implementing the recommendations set out in the annex to decision POPRC-6/2, information in Parties' national implementation plans and studies from the scientific and grey literature, and incorporating comments by the Persistent Organic Pollutants Review Committee. The full report was set out in document UNEP/POPS/COP.8/INF/12, while its conclusions were reproduced, in the six official languages of the Convention, in document UNEP/POPS/COP.8/7.
- 74. In the ensuing discussion one representative expressed concern about the limited information provided to the Secretariat for preparing the report, which she said undermined the evaluation of Parties' progress in eliminating brominated diphenyl ethers. Parties still declaring a need to register specific exemptions should provide the relevant information, and she recommended that more specific data on the quantity of brominated diphenyl ethers contained in articles be solicited. One representative, speaking on behalf of a group of countries, agreed that the provision of quantitative information on articles containing brominated diphenyl ethers would strengthen reporting.
- 75. One representative, supported by several others, called for the exemptions for the recycling of such articles to be curtailed as soon as possible, as recommended by the Persistent Organic Pollutants Review Committee in the annex to its decision POPRC-6/2. Several representatives said that continuing to allow the chemicals to be reused in new products would contribute to their spread rather than their elimination and, hence, increase the risks to human health and the environment in direct contravention of the objectives of the Stockholm Convention. One representative, supported by another, said that the presence of brominated diphenyl ethers in toys posed an unacceptable risk to children.
- 76. One representative, supported by another, recommended separating the articles containing brominated diphenyl ethers from those entering the recycling stream and, together with a third representative speaking on behalf of a group of countries, she urged the limited number of Parties still registered for the specific exemptions to carefully consider their continued need for them. A number of representatives said that some developing countries lacked the capacity to analyse articles containing brominated diphenyl ethers, including in the waste stream. A number of others, including one speaking

on behalf of a group of countries, said that exports of articles containing brominated diphenyl ethers to countries unable to dispose of the waste in an environmentally sound manner should be prevented.

- 77. Most of the representatives that spoke expressed support for the draft decision set out in document UNEP/POPS/COP.8/7. Amendments were proposed by several representatives, including one speaking on behalf of a group of countries, and it was agreed that interested Parties would consult informally to prepare a revised version of the draft decision for consideration by the Conference of the Parties.
- 78. Subsequently the Conference of the Parties adopted a revised version of the draft decision, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 79. Decision SC-8/4, on the evaluation and review of brominated diphenyl ethers pursuant to paragraph 2 of parts IV and V of Annex A to the Stockholm Convention, as adopted by the Conference of the Parties, is set out in annex I to the present report.

5. Perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride

- 80. Introducing the sub-item, the President recalled that in accordance with part III of Annex B to the Convention the Conference of the Parties at its seventh meeting had reviewed the continued need for the various specific exemptions and acceptable purposes for the use of perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOSF) listed in that annex and had concluded that Parties might need to continue to use those chemicals for acceptable purposes.
- 81. Continuing the introduction the representative of the Secretariat outlined document UNEP/POPS/COP.8/8, saying that it provided information on consolidated guidance on alternatives to PFOS and its related chemicals, which had been endorsed by the Persistent Organic Pollutants Review Committee at its twelfth meeting, at which time the Committee had also recommended that the Conference of the Parties encourage Parties and observers to collect information on the production and use of sulfluramid and make it available for consideration by the Conference of the Parties at its ninth meeting; on possible actions should the Conference of the Parties determine that there was no further need to use PFOS, its salts and PFOSF for one or more of the acceptable purposes listed in Annex B; and on the main provisions of the Convention to which Parties referred in providing information on the application of Article 4 of the Convention.
- 82. In the ensuing discussion, several representatives welcomed the consolidated guidance on alternatives to PFOS and its related chemicals as a useful reference document for all Parties. A number of representatives also welcomed the evaluation pertaining to PFOS, its salts and PFOSF, with one saying that the evaluation must take into account development levels in the case of developing countries and another stating that the evaluation promised to provide a basis for amendment of the Convention at the ninth meeting of the Conference of the Parties. Another said that all countries producing or importing sulfluramid for the acceptable purpose of use as the active ingredient of insect baits for the control of leaf-cutting ants should provide the Secretariat with all relevant information to facilitate the work of the Persistent Organic Pollutants Review Committee.
- 83. Saying that exemptions should be phased out as soon as possible, one representative, supported by another, reiterated a proposal made at the seventh meeting of the Conference of the Parties that the acceptable purposes for PFOS, its salts and PFOSF should be replaced with time-limited specific exemptions, which could be done irrespective of whether Parties were still using the chemicals for acceptable purposes. A number of representatives objected to the proposal, with one saying that there was still a need for acceptable purposes. Another expressed the hope that his country's ban on all specific exemptions and many of the acceptable purposes would be followed by other Parties. One representative reported on progress achieved in his country towards reducing and eliminating the use of PFOS in certain industries.
- 84. Concerning the interpretation of Article 4, paragraph 4, of the Convention, one representative expressed the view that the date of entry into force of the Convention with regard to a specific chemical determined the starting date for a specific exemption, for which the expiry date was therefore the same for all Parties registered for the exemption, and that it was not possible for a Party to register for a specific exemption after its expiry date.
- 85. One representative, speaking on behalf of a group of countries, said that it was important for the Secretariat, subject to the availability of resources, to continue to provide support to Parties in their efforts to build their technical and legal capacity for the sound management of PFOS and the introduction of alternatives. It was also important, however, to encourage the involvement of regional

centres in providing that support, to which end he proposed an amendment to the draft decision. Several representatives said that it would first be necessary to strengthen the capacities of regional centres if they were to undertake that task.

- 86. Following the discussion it was agreed that interested Parties would consult informally to prepare a revised version of the draft decision for consideration by the Conference of the Parties.
- 87. Subsequently the Conference of the Parties adopted a revised version of the draft decision, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 88. Decision SC-8/5, on perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride, as adopted by the Conference of the Parties, is set out in annex I to the present report.

B. Measures to reduce or eliminate releases from unintentional production

- Introducing the sub-item the President noted that it encompassed issues relevant to the Toolkit for Identification and Quantification of Releases of Dioxins, Furans and Other Unintentional Persistent Organic Pollutants, as well as to the guidelines and guidance on best available techniques and best environmental practices. Continuing the introduction the representative of the Secretariat, outlining the information in document UNEP/POPS/COP.8/9, reported that the experts on the Toolkit and on best available techniques and best environmental practices (BAT/BEP) had implemented the workplan adopted by the Conference of the Parties in decision SC-7/7, developing draft joint terms of reference for the review and updating of relevant guidelines and guidance, updating existing guidance on BAT/BEP and developing new guidance on BAT/BEP in respect of hexabromocyclododecane. The experts had also supported the effectiveness evaluation committee in its evaluation of issues relating to Article 5 of the Convention by analysing available information on unintentional releases of persistent organic pollutants. The Secretariat, with financial support from the Governments of Germany and Norway and the European Union, had supported the experts, including through the organization of expert meetings in 2015 and 2016 in collaboration with the Basel Convention Regional Centre for Central Europe in Bratislava. The conclusions and recommendations of the experts at their 2015 and 2016 meetings were set out in annex I to the document.
- 90. Following that introduction one representative, speaking on behalf of a group of countries expressed appreciation for the work of the experts on the Toolkit and BAT/BEP and support for their conclusions and recommendation and pledged the continued active involvement of experts from the countries for which he spoke.
- 91. The Conference of the Parties adopted the draft decision set out in document UNEP/POPS/COP.8/9, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 92. Decision SC-8/6, on the Toolkit for Identification and Quantification of Releases of Dioxins, Furans and Other Unintentional Persistent Organic Pollutants and guidelines and guidance on best available techniques and best environmental practices, as adopted by the Conference of the Parties, is set out in annex I to the present report.

C. Measures to reduce or eliminate releases from wastes

- 93. The representative of the Secretariat introduced the matter, outlining the information in document UNEP/POPS/COP.8/10 and reporting that relevant guidelines under the Basel Convention had been developed and updated (see UNEP/CHW.13/28, sect. B 1 (a)) with the participation of Stockholm Convention experts, including members of the Persistent Organic Pollutants Review Committee. In the ensuing discussion many representatives, including one speaking on behalf of a group of countries, expressed appreciation for the work of the experts that had participated in the small intersessional working group under the Basel Convention that had worked to update the general and specific technical guidelines for persistent organic pollutant wastes. There was widespread support for the draft decision set out in document UNEP/POPS/COP.8/10 and for updating the guidelines. Several representatives, including one speaking on behalf of a group of countries, proposed amendments to the draft decision. One underscored the importance of completing the guidelines so that Parties could use them when updating their national implementation plans.
- 94. A number of representatives noted that their countries had more stringent national standards for low persistent organic pollutant content than some of those included in the guidelines, with one inquiring what scientific methods and methodologies had been used in selecting the levels. Two

representatives said that there was a need to provide technical and financial assistance to help countries to implement the guidelines, drawing particular attention to countries in Africa or suffering the impacts of violent conflict. Another said that each Party possessed the sovereign right to apply or not apply the guidelines and in what manner.

- 95. The representative of the Secretariat noted that representatives interested in the elaboration of the guidelines, including the criteria for setting the low persistent organic pollutant content levels, could participate in the contact group on Basel Convention technical matters. Parties seeking support for implementing the guidelines could apply for assistance through the Special Programme to support institutional strengthening at the national level for implementation of the Basel, Rotterdam and Stockholm conventions, the Minamata Convention and the Strategic Approach to International Chemicals Management.
- 96. Following the discussion the Conference of the Parties to the Stockholm Convention requested the Secretariat to consult with the representatives that had suggested amendments to the draft decision set out in document UNEP/POPS/COP.8/10 and to prepare a revised version of the draft decision, taking into account the discussions in plenary and related developments that would need to be reflected such as the listing of new chemicals in the annexes to the Convention at the current meeting or the adoption or updating of guidelines by the Conference of the Parties to the Basel Convention.
- 97. Subsequently the Conference of the Parties adopted a revised version of the draft decision, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 98. Decision SC-8/7, on measures to reduce or eliminate releases from wastes, as adopted by the Conference of the Parties, is set out in annex I to the present report.

D. Implementation plans

- 99. Introducing the sub-item, the President noted that Parties were required to endeavour to implement the Convention through implementation plans that were to be periodically reviewed and updated. The Secretariat, he said, had prepared a number of guidance documents to assist Parties in their efforts to do that. Continuing the introduction, the representative of the Secretariat drew attention to the relevant note by the Secretariat (UNEP/POPS/COP.8/11). Information on the transmission of implementation plans by Parties was provided in document UNEP/POPS/COP.8/INF/17, and since the preparation of that document Lebanon had transmitted its implementation plan.
- 100. During the ensuing discussion many representatives stressed the importance of national implementation plans for fulfilling their obligations under the Convention, and many reported on the current status of their countries' implementation plans. In several cases initial plans had been completed successfully, but Parties were encountering problems in preparing updated plans in a timely manner. Many representatives said that there was a need for additional, predictable and sustainable technical and financial resources to enable the completion or updating of their countries' implementation plans. One representative said that capacity-building and training activities were also required. Several representatives expressed appreciation for the technical and financial support already received from such entities as GEF and its implementing agencies.
- 101. One representative, speaking on behalf of a group of countries, emphasized the importance of implementation plans and urged Parties to submit their missing or delayed plans as soon as possible. While welcoming the revised guidance documents, he emphasized that guidance should remain user friendly and suggested that an electronic template would be useful for submitting quantitative information in a harmonized manner, as recommended in the effectiveness evaluation report. The Secretariat could explore innovative approaches to make reporting more efficient and effective, such as information harvesting through open data sources. One representative said that the guidelines provided by the Secretariat had proved useful in developing his country's national implementation plan. Another representative highlighted the value of the guidance documents in assisting countries with completing their implementation plans but expressed reservations about the benefit of introducing further electronic forms, the use of which should remain optional. Another representative said that not all guidance documents had been reviewed by the Parties and should be reviewed in accordance with the process adopted by the Conference of the Parties at its sixth meeting.
- 102. One representative drew attention to the considerable problems encountered in gathering information and developing inventories by countries in post-conflict situations. Another representative said that it was important to consider the role that the private sector could play in helping countries attain their objectives under the Convention. Another representative said that education was very important in informing all actors of their roles in supporting the elimination of persistent organic

pollutants. Another representative said that his country had not been able to receive funding for the revision and updating of its national implementation plan. Another representative said that his country had withdrawn its non-acceptance of the amendment to the Convention adopted at the sixth meeting of the Conference of the Parties.

- 103. Following the discussion the Conference of the Parties requested the Secretariat, in consultation with interested Parties, to prepare for its consideration a revised version of the draft decision set out in document UNEP/POPS/COP.8/11, taking into account the discussions in plenary.
- 104. Subsequently the Conference of the Parties adopted a revised version of the draft decision, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 105. Decision SC-8/8, on implementation plans, as adopted by the Conference of the Parties, is set out in annex I to the present report.

E. Listing of chemicals in Annex A, B or C to the Convention

106. Introducing the sub-item, the President said that the process for listing chemicals in the annexes to the Convention was at the heart of the Convention. Under the sub-item the Conference of the Parties would discuss developments in the work of the Persistent Organic Pollutants Review Committee and recommendations by the Committee to list chemicals in the annexes to the Convention.

1. Developments in the work of the Persistent Organic Pollutants Review Committee: membership of the Committee, cooperation between the Committee and other scientific bodies and effective participation in the work of the Committee

- 107. The representative of the Secretariat introduced the matter, outlining the information in document UNEP/POPS/COP.8/12, recaling that the 14 members of the Committee nominated at the seventh meeting of the Conference of the Parties in accordance with decision SC-7/15 had begun their terms of office on 5 May 2016 subject to appointment by the Conference of the Parties at the current meeting. The terms of the remaining 17 members of the Committee would expire on 4 May 2018, and the Conference of the Parties was invited to appoint their successors at the current meeting.
- Mr. Zaigham Abbas (Pakistan), Vice-Chair of the Committee, then reported on the Committee's work at its eleventh and twelfth meetings, which had taken place in October 2015 and September 2016, respectively, noting that the main role of the Committee, as stated in Article 8 of the Convention, was to review chemicals recommended for listing in the annexes to the Convention and observing that information provided by Parties and observers was critical to its ability to make sound, science-based decisions. During the two meetings, he reported, the Committee had concluded its review of decabromodiphenyl ether and short-chain chlorinated paraffins and was recommending that they be listed in Annex A to the Convention. In accordance with decision SC-7/11 it had also further evaluated hexachlorobutadiene (previously listed in Annex A to the Convention without specific exemptions by decision SC-7/12) on the basis of newly available information in relation to its possible listing in Annex C to the Convention. The Committee had also reviewed dicofol and pentadecafluorooctanoic acid (PFOA), its salts and PFOA-related compounds and would consider risk management evaluations for them at its thirteenth meeting, in October 2017; had reviewed and commented on a draft report by the Secretariat on the evaluation and review of brominated diphenyl ethers; and had finalized guidance on alternatives to perfluorooctane sulfonic acid (PFOS) and its related chemicals for its use in assessing alternatives to PFOS in accordance with the process set out in the annex to decision SC-6/4.
- 109. In the ensuing discussion one representative, speaking on behalf of a group of countries and saying that it was important to strengthen the involvement of experts working under the Basel Convention in the work of the Persistent Organic Pollutants Review Committee in order to ensure the consideration of relevant information on waste and disposal issues, introduced a conference room paper proposing amendments to the draft decision in document UNEP/POPS/COP.8/12. Another representative proposed an additional amendment aimed at encouraging Parties and others to provide information on waste and disposal issues and to involve their Basel Convention experts in the work of the Committee.
- 110. Following the discussion the Conference of the Parties requested the Secretariat to prepare for its consideration a revised version of the draft decision set out in document UNEP/POPS/COP.8/12, taking into account the discussions in plenary and the proposed amendments.

- 111. Subsequently the Conference of the Parties adopted the revised draft decision prepared by the Secretariat.
- 112. Decision SC-8/9, on the operation of the Persistent Organic Pollutants Review Committee, as adopted by the Conference of the Parties, is set out in annex I to the present report.

2. Recommendations by the Persistent Organic Pollutants Review Committee to list chemicals in the annexes to the Convention

(a) Decabromodiphenyl ether

- 113. During the discussion on decabromodiphenyl ether, many representatives, including a number speaking on behalf of groups of countries, expressed support for its listing in Annex A to the Convention. Many of those who spoke also specified that they were in favour of proposed exemptions for the automotive industry and in some cases the aerospace industry as well. A number of representatives proposed an additional exemption for the textile industry, and others, an exemption for the recycling of articles containing decabromodiphenyl ether. One representative opposed both of those proposed exemptions. Several representatives said that there was a need to provide developing countries with technical and financial assistance to enable the successful introduction of alternatives and elimination and prevention measures, and another suggested that the creation of a register of products containing decabromodiphenyl ether could help the Persistent Organic Pollutants Review Committee resolve issues and find and assess alternatives, thus simplifying the procedure for listing chemicals.
- 114. Following the discussion the Conference of the Parties established a contact group on listing chemicals in the annexes to the Convention, co-chaired by Mr. Björn Hansen (European Union) and Mr. David Kapindula (Zambia). Taking into account the discussions in plenary, the group would prepare for the consideration of the Conference a revised version of the draft decision in document UNEP/POPS/COP.8/13.
- 115. Subsequently the Conference of the Parties adopted a revised version of the draft decision prepared by the group, which provided for the listing of decabromodiphenyl ether (commercial mixture, c-decaBDE) in Annex A to the Convention with specific exemptions. It also adopted, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019, a second draft decision prepared by the group, by which the Conference of the Parties requested the Persistent Organic Pollutants Review Committee to undertake a review of information related to specific exemptions for decabromodiphenyl ether and to prepare a report on the results of the review, including any recommendations, for consideration by the Conference of the Parties.
- 116. Decisions SC-8/10, on the listing of decabromodiphenyl ether (commercial mixture, c-decaBDE), and SC-8/13, on the review of information related to specific exemptions for decabromodiphenyl ether, as adopted by the Conference of the Parties, are set out in annex I to the present report.

(b) Short-chain chlorinated paraffins

- 117. In the discussion of short-chain chlorinated paraffins many representatives, including a number speaking on behalf of groups of countries, said that they were in favour of listing the chemical in Annex A to the Convention, although several stipulated that their support was conditional on the granting of specific exemptions and a number of others said that they would require financial and technical assistance to enable them identify and eliminate the chemical if it were listed. A number of representatives called for listing with no exemptions, and a number of others, including one speaking on behalf of a group of countries, also expressed support for controls to limit the presence of short-chain chlorinated paraffins in other chlorinated paraffin mixtures. A number of representatives said that the chemical to be listed should be more clearly identified.
- 118. Several representatives said that they opposed the listing of short-chain chlorinated paraffins. One representative, supported by another, contended that the risk profile adopted by the Committee did not meet the requirements of Annexes D and E and that more time was needed for research, and a third said that the risk profile on short-chain chlorinated paraffins prepared by the Persistent Organic Pollutants Review Committee contained gaps and contradictory information.
- 119. Following the discussion the Conference of the Parties decided that the contact group on listing chemicals in the annexes to the Convention established as described in section V E 2 (a) above (para. 114) would consider the matter further. Taking into account the discussions in plenary, the group would prepare for the consideration of the Conference a revised version of the draft decision in document UNEP/POPS/COP.8/14.

- 120. Subsequently the Conference of the Parties adopted a revised version of the draft decision prepared by the contact group providing for the listing of short-chain chlorinated paraffins in Annex A to the Convention with specific exemptions. It also adopted, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019, a second draft decision prepared by the contact group by which the Conference of the Parties requested the Persistent Organic Pollutants Review Committee to undertake a review of information related to specific exemptions for short-chain chlorinated paraffins and to prepare a report on the results of the review, including any recommendations, for consideration by the Conference of the Parties.
- 121. Decisions SC-8/11, on the listing of short-chain chlorinated paraffins, and SC-8/14, on the review of information related to specific exemptions for short-chain chlorinated paraffins, as adopted by the Conference of the Parties, are set out in annex I to the present report.

(c) Hexachlorobutadiene

- 122. During the discussion on unintentional releases of hexachlorobutadiene, many representatives, including one speaking on behalf of a group of countries, expressed support for listing the chemical in Annex C to the Convention, although a number of them said that the available information on unintentional releases was not clear and indicated that ongoing information gathering was desirable. One representative opposed listing, saying that there was a lack of relevant data, and another urged caution, saying that Parties should carefully consider the cost implications of listing the chemical in Annex C.
- 123. One representative took the opportunity to make a general comment regarding the process for listing substances in the annexes to the Convention, suggesting that the use of a more scientific approach would allow Parties to set aside political interests. He also said that alternatives should be identified before substances were listed.
- 124. Following the discussion the Conference of the Parties agreed that the contact group on listing chemicals in the annexes to the Convention established as described in section V E 2 (a) above (para. 114) would consider the matter further. Taking into account the discussions in plenary, the group would prepare for the consideration of the Conference a revised version of the draft decision in document UNEP/POPS/COP.8/15.
- 125. Subsequently the Conference of the Parties adopted the draft decision set out in document UNEP/POPS/COP.8/15, without change.
- 126. Decision SC-8/12, on the listing of hexachlorobutadiene in Annex C to the Convention, as adopted by the Conference of the Parties, is set out in annex I to the present report.

F. Technical assistance

- 127. The discussion summarized in the present section, on technical assistance (agenda item 5 (f)), took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 128–134, 138–143 and 147–149 below are substantially identical to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 156–162, 166–171 and 177–179, and the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), paragraphs 159–165, 169–174 and 177-179.
- 128. Introducing the matter, the President said that technical assistance was essential to the successful implementation of the conventions, that the regional centres of the Basel and Stockholm conventions and the regional and subregional offices of UNEP and FAO continued to play a vital role in its delivery and that it was one of the areas of work that benefitted most from enhanced coordination and cooperation among the three conventions. The main matters to be considered at the current meetings were technical assistance in general, including the technical assistance plan prepared by the Secretariat for the delivery of technical assistance under all three conventions; the Basel and Stockholm convention regional centres; and the implementation of decision V/32 of the Conference of the Parties to the Basel Convention, on the enlargement of the scope of the Trust Fund to Assist Developing and Other Countries in Need of Technical Assistance in the Implementation of the Basel Convention.

1. Technical assistance

- 129. The representative of the Secretariat introduced the matter, outlining the information in document UNEP/CHW.13/17-UNEP/FAO/RC/COP.8/17-UNEP/POPS/COP.8/17 and recalling that since the 2013 meetings of the conferences of the Parties the Secretariat had implemented a common technical assistance and capacity-building programme for the three conventions aimed at avoiding duplication and thus increasing the effectiveness of delivered assistance. Based on past experience and information provided by Parties about their needs, the Secretariat had developed a four-year technical assistance plan to replace the current biennial programme with a view to allowing for improved impact assessment, monitoring and evaluation while advancing capacity development and assisting Parties to address their needs in a strategic, systematic and forward-looking manner.
- 130. In the ensuing discussion, several representatives said that technical assistance and technology transfer were crucial to implementation of the three conventions by developing country Parties and Parties with economies in transition. Examples of the achievements to which technical assistance had contributed included regulation and standard-setting relating to polychlorinated biphenyls (PCBs) under the Stockholm Convention and data collection for the preparation of a proposal on carbofuran as a severely hazardous pesticide formulation under the Rotterdam Convention. Several representatives said that there was a need for increased technical assistance, in relation, for example, to dealing with new industrial persistent organic pollutants, e-waste and plastics, including micro-plastics in the marine environment.
- 131. There was general support for the Secretariat's four-year technical assistance plan, including its cross-cutting nature in respect of many issues. Several representatives, however, suggested changes to the draft decision in document UNEP/CHW.13/17-UNEP/FAO/RC/COP.8/17-UNEP/POPS/COP.8/17, and others said that they would like to discuss the matter further in a contact group.
- 132. Several representatives said that there was a need for more resources for technical assistance, from both existing and new sources, to ensure that the plan could be implemented successfully. Their proposals included leveraging public-private partnerships; drawing on the expertise and resources of implementing institutions such as UNIDO and UNDP; and ensuring coordinated programme planning with international organizations implementing programmes on chemicals and wastes.
- 133. One representative proposed that the technical assistance plan should build on the Bali Strategic Plan for Technology Support and Capacity-building and the Rio Declaration on Environment and Development and that it should incorporate the principle of common but differentiated responsibilities. Several representatives made comments in relation to training support, calling for more dynamic, hands-on learning as opposed to a traditional workshop format; saying that there was a need for more research, training, education and scientific and technical support in specialized fields relevant to implementation of the conventions; and calling for more support on reporting, which was currently only available from the Secretariat, which had limited time and capacity to provide it. One representative said that there was a need to ensure that the plan was a living document that was updated and adjusted as needed and implemented according to the resources available.
- 134. Following the discussion, the conferences of the Parties decided that the contact group on technical assistance and financial resources established as described in section V G 3 below (para. 168) should consider the matter further.
- 135. Subsequently the Conference of the Parties to the Stockholm Convention adopted a draft decision submitted by the contact group, as sections I and III of decision SC-8/15, on technical assistance.
- 136. The decision, as adopted by the Conference of the Parties to the Stockholm Convention, is set out in annex I to the present report.
- 137. In addition the conferences of the Parties to the Basel and Rotterdam conventions adopted decisions on technical assistance that were substantially identical to the decision adopted by the Conference of the Parties to the Stockholm Convention. Decisions BC-13/11 (sections I and IV) and RC-8/9, as adopted by the conferences of the Parties to the Basel and Rotterdam conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), respectively.

2. Regional centres

- 138. The representative of the Secretariat introduced the matter, outlining the information in documents UNEP/CHW.13/11 and UNEP/POPS/COP.8/16/Rev.1, on the activities undertaken by the regional centres of the Basel and Stockholm conventions, the Secretariat and others in response to the requests of the conferences of the Parties to the two conventions, and highlighting information about the number of regional centres that had submitted their business plans, work plans and activity reports, the 2015 and 2016 annual joint meetings of the directors of the regional centres under the two conventions and the status of framework agreements with a number of regional centre host country Governments, including the decision by the Government of El Salvador to terminate the framework agreement between the Secretariat of the Basel Convention and the Government of El Salvador.
- 139. In the ensuing discussion several members said that regional centres played a critical role in enabling the sound management of chemicals and wastes and that the need for support provided by the centres was increasing with the constant development of new products. It was also said that the regional centres should take into account the specific requirements for technical assistance identified at the current meetings when developing their work plans.
- 140. One representative said that the regional centres could play a role in collecting and verifying information not only on best available technologies but also on the operators using such technologies, with the aim of developing a register to assist countries in stemming the spread of dubious technologies.
- 141. Several representatives said that there was a need to ensure that the regional centres had the resources that they needed to support Parties. In that respect, several representatives expressed concern at the closure of a regional centre in the Latin America region, saying that others should be saved from the same fate. In that context the representative of Brazil proposed that the Stockholm Convention regional centre based in the environment agency of the State of São Paulo, (Companhia do Tecnologia do Saneamento Ambiental do Estado de São Paulo), which had also developed a number of initiatives in support of the Basel Convention, become a regional centre for the latter convention. The representatives of several countries hosting existing regional centres expressed their continued support for those centres.
- 142. One representative said that language-related difficulties prevented her country from benefiting fully from the services of the centre in her region, and she proposed that the regional centre located in Moscow be strengthened to allow it to support countries from the Commonwealth of Independent States.
- 143. Following the discussion, the conferences of the Parties to the Basel and Stockholm conventions decided that the contact group on technical assistance and financial resources established as described in section V G 3 below (para. 168) should consider the matter further.
- 144. Subsequently the Conference of the Parties to the Stockholm Convention adopted a revised version of the draft decision set out in document UNEP/POPS/COP.8/16/Rev.1, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019, as section II of decision SC-8/15, on technical assistance.
- 145. The decision, as adopted by the Conference of the Parties to the Stockholm Convention, is set out in annex I to the present report.
- 146. In addition, the Conference of the Parties to the Basel Convention adopted a decision on Basel Convention regional and coordinating centres as section II of decision BC-13/11, on technical assistance. The decision, as adopted by the Conference of the Parties to the Basel Convention, is set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28).
- 3. Implementation of decision V/32 on the enlargement of the scope of the Trust Fund to Assist Developing and Other Countries in Need of Technical Assistance in the Implementation of the Basel Convention
 - 147. In the interests of time, the Conference of the Parties to the Basel Convention decided not to discuss the implementation of decision V/32, on the enlargement of the scope of the Trust Fund to Assist Developing and Other Countries in Need of Technical Assistance in the Implementation of the Basel Convention, in plenary. Instead the matter would be taken up directly by the contact group on technical assistance and financial resources established as described in section V G 3 below (para. 168).

- 148. Following the discussion in the contact group the Conference of the Parties to the Basel Convention adopted the draft decision on the matter set out in document UNEP/CHW.13/12, without change, as section III of decision BC-13/11, on technical assistance.
- 149. The decision, as adopted by the Conference of the Parties to the Basel Convention, is set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28).

G. Financial resources and mechanisms

- 150. The discussion summarized in the present section, on financial resources and mechanisms (agenda item 5 (g)), took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 151–168 below are substantially identical to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 231–248, and the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), paragraphs 181–198.
- 151. Under the item the conferences of the Parties first considered issues relating to the financial mechanism of the Stockholm Convention and second the integrated approach to financing for chemicals and wastes and the Special Programme to support institutional strengthening at the national level for the implementation of the Basel, Rotterdam and Stockholm conventions, the Minamata Convention and the Strategic Approach.

1. Financial mechanism of the Stockholm Convention

- 152. The representative of the Secretariat introduced the matter, outlining the information in document UNEP/POPS/COP.8/18 and noting that it comprised five issues: first, guidance from the Conference of the Parties to the financial mechanism; second, the fourth review of the financial mechanism; third, cooperation between the Secretariat and the GEF secretariat and reciprocal representation at relevant meetings; fourth, the assessment of the funding needed by developing countries and countries with economies in transition to implement the Convention during the period 2018–2022; and fifth, reporting by the GEF Council to the Conference of the Parties.
- 153. Regarding the first issue, he said that a non-exhaustive list of proposed elements of guidance to the financial mechanism was before the Conference of the Parties for consideration in the draft decision set out in the document, along with newly proposed guidance that took into account proposed programme priorities for 2018–2022 and that was based on the recommendations of the effectiveness evaluation committee. The Conference of the Parties, he added, might wish to consider further additional guidance to the financial mechanism. For the second and third issues, the Conference of the Parties had before it a draft report on the fourth review of the financial mechanism (UNEP/POPS/COP.8/INF/30) prepared by an independent evaluator, and information on cooperation between the Secretariat and the GEF secretariat (UNEP/POPS/COP.8/18, paras. 22–27) and the GEF co-financing policy (UNEP/POPS/COP.8/INF/29). With regard to the fourth issue, document UNEP/POPS/COP.8/INF/32 contained a full report on the assessment of funding needs prepared by two independent experts. Echoing the President, he added that the outcomes of the deliberations on the assessment of funding needs for the period 2018–2022, the additional guidance to the financial mechanism and the fourth review of the financial mechanism would constitute important inputs for the negotiations on the seventh replenishment of the GEF trust fund.
- 154. Finally, regarding reporting by the GEF Council to the Conference of the Parties, he noted that a report by the GEF Council was before the Parties in document UNEP/POPS/COP.8/INF/28. Following the Secretariat's introduction, the representative of GEF introduced the report, which provided information on GEF activities between 1 July 2014 and 30 June 2016 and how GEF had responded to existing guidance from the Conference of the Parties. During the period, she noted, GEF had provided funding of approximately \$187 million, leveraging an additional \$753 million from private sector and other sources, for 81 projects in the chemicals and wastes focal area, including \$131 million for projects aimed at reducing human exposure to persistent organic pollutants. More than 45 per cent of the approved projects for the sixth replenishment period related to chemicals, including projects relating to unintentionally produced persistent organic pollutants, PCBs, persistent organic pollutant pesticides, perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride, effectiveness evaluation, national implementation plans, capacity-building, green chemistry, reducing chemical emissions in the context of sustainable urban growth and chemicals management in the industrial sector. In the more than 15 years of implementation of the Stockholm Convention, GEF had provided over \$1 billion in resources and leveraged an additional \$3 billion in co-financing for

implementation of the Convention. Evaluations of those projects, including the fourth review of the financial mechanism, had shown that GEF support was exceeding performance targets with positive impacts, but GEF looked forward to working with all partners to further improve its operations during its seventh replenishment period.

- 155. In the ensuing discussion, several representatives, including one speaking on behalf of a group of countries, indicated their general support for the draft decision, although a number, including one speaking on behalf of a group of countries, said that they wished to propose minor changes or additions.
- 156. A number of representatives said that predictable funding was critical to the successful implementation of the conventions. One suggested that new sources of predictable, sustainable and adequate financing would need to be identified due to the interim nature of the role of GEF with regard to the financial mechanism. He also said that the approach of GEF was politicized and should be more technical. Another representative said that GEF should improve access to funding by allowing various national agencies to participate and to bear in mind the practices of other international financial institutions with regard to access to funding.
- 157. Several representatives said that there was a need for diversified sources of funding. A number of representatives said that the private sector should play a greater role in financing, with one calling for the development of strategies in that regard. Another said that private sector participation should form part of a broader co-financing effort and asked that GEF support developing countries in identifying and mobilizing co-financing for implementation projects. He also encouraged GEF to seek alternative international funding sources that could allow for joint efforts to achieve the 2030 Agenda for Sustainable Development in an integrated manner. Another representative said that in addition to diversified sources of funding, countries with economies in transition needed access to very low interest loans.
- 158. One representative, saying that GEF was a crucial tool for catalysing resource mobilization at the domestic level, expressed concern about a decision taken at the latest meeting of the GEF Council regarding a possible reduction of resources as a result of exchange rate fluctuations and the possibility that such a situation might recur during the seventh replenishment period.
- 159. One representative called for countries to more accurately assess both the volumes of persistent organic pollutants subject to ultimate disposal and the financial means required for that, at the same time expressing appreciation for the needs assessment work done by the Secretariat and other stakeholders.
- 160. Following the discussion, the Conference of the Parties to the Stockholm Convention decided that the contact group on technical assistance and financial resources established as described in section V G 3 below (para. 168) should consider the matter further.
- 161. Subsequently the Conference of the Parties to the Stockholm Convention adopted a draft decision prepared by the contact group.
- 162. Decision SC-8/16, on the financial mechanism of the Stockholm Convention, as adopted by the Conference of the Parties, is set out in annex I to the present report.

2. Integrated approach and Special Programme

- 163. The representative of the Secretariat introduced the matter, outlining the information in document UNEP/CHW.13/INF/40-UNEP/FAO/RC/COP.8/INF/44-UNEP/POPS/COP.8/INF/35 and reporting that, in accordance with decisions BC-12/18, RC-7/8 and SC-7/22, the Secretariat had continued to take the integrated approach as a reference in its mandated activities and its support for the Parties to the three conventions and had participated in the internal task team of the Special Programme to support institutional strengthening at the national level for implementation of the Basel, Rotterdam and Stockholm conventions, the Minamata Convention and the Strategic Approach, including by attending the first two meetings of the Special Programme executive board as an observer.
- 164. The representative of UNEP then reported on the implementation of the Special Programme, outlining the information in document UNEP/CHW.13/INF/41-UNEP/FAO/RC/COP.8/INF/45-UNEP/POPS/COP.8/INF/36.
- 165. The conferences of the Parties were invited to take note of the information provided.
- 166. In the ensuing discussion a number of representatives, speaking on behalf of groups of countries, praised the achievements of the Special Programme to date. Along with the fact that GEF was already taking into account possible co-benefits for the implementation of the Basel and

Rotterdam conventions, said one, the implementation of the Special Programme showed the good progress made in the external financing component of the integrated approach. He called for further progress in the other two components, namely, mainstreaming and private sector involvement, pointing to the recent adoption by several Parties of legislation imposing taxes and levies in accordance with the polluter pays principle as an example to be followed. Another representative called for continued improvement of the programme, in particular by including a needs assessment to ensure that country needs and stated goals were met and by raising the current cap on funding.

167. The representative of India said that efficient implementation of the conventions required the dissemination of appropriate technologies to developing countries, supported by effective capacity-building and technical assistance. Consequently, his delegation intended to introduce a conference room paper proposing a framework for the development of a mechanism along the lines of the technology facilitation mechanism under the 2030 Agenda for Sustainable Development. A second representative, speaking on behalf of a group of countries, supported the view that technology transfers were essential and that the technology facilitation mechanism was a good means of facilitating them but said that the mobilization of new, additional and predictable financial resources remained key to the implementation of the conventions in developing countries.

3. Establishment of a contact group

168. Following the discussion in section 2 above, the conferences of the Parties established a joint contact group on technical assistance and financial resources co-chaired by Ms. Leticia Reis de Carvalho (Brazil) and Mr. Niko Urho (Finland). The group was mandated to prepare for consideration at a subsequent session of the meetings draft decisions on technical assistance using the draft decision in document UNEP/CHW.13/17-UNEP/FAO/RC/COP.8/17-UNEP/POPS/COP.8/17 as a starting point; on Basel and Stockholm convention regional centres using the draft decisions in documents UNEP/CHW.13/11 and UNEP/POPS/COP.8/16/Rev.1; on the implementation of decision V/32 using the draft decision in document UNEP/CHW.13/12; on the financial mechanism of the Stockholm Convention using the draft decision in document UNEP/POPS/COP.8/18. The group was also tasked with considering the integrated approach and Special Programme and the conference room paper on the financial mechanism for technology transfer to be submitted by India.

H. Reporting pursuant to Article 15

Introducing the sub-item, the President recalled that the Parties to the Convention were required to report every four years on the measures they had taken to implement the Convention and their effectiveness and that the information so reported was used, among other things, for the effectiveness evaluation under Article 16 of the Convention, for the evaluation of progress towards the elimination of polychlorinated biphenyls and for the evaluation of the continued need for the specific exemptions and acceptable purposes for the production and use of PFOS, its salts and PFOSF. Continuing the introduction the representative of the Secretariat, outlining the information in document UNEP/POPS/COP.8/20, reported that in response to decision SC-7/23 the Conference of the Parties had enhanced the electronic reporting system and revised the draft strategy to enhance reporting under the Convention. Noting that the effectiveness evaluation report had stressed the importance of Parties increasing their efforts to collect quantitative data on chemicals listed in the Convention, she outlined activities that could help Parties increase their capacity for reporting, including work on inventories under the technical assistance programme and the Special Programme to support institutional strengthening at the national level for implementation of the Basel, Rotterdam and Stockholm conventions, the Minamata Convention and the Strategic Approach. She also suggested that the role of the regional centres and regional coordination in respect of reporting could be improved. In addition, she noted that the revised draft strategy to enhance reporting under the Convention recommended the development of a manual for completing the updated format for national reporting, and the draft decision proposed the establishment of a small intersessional working group for that purpose.

170. In response to a query the representative of the Secretariat provided additional information on the manual to be developed by the small intersessional working group, saying that while the current manual only addressed the very basic functioning of the system, the proposed new manual would address content, describing in detail what was sought for each table and question in the reporting format and cross-referencing relevant guidance and other supporting information. The creation of an intersessional working group to develop the manual was proposed based on the positive experience during a similar activity under the Basel Convention and was aimed at engaging Parties in the process. She also addressed comments from another representative, welcoming his suggestion that a frequently-asked-questions section be added to the electronic reporting system and confirming that all data and information submitted pursuant to Article 15 of the Convention was currently publicly

- available. Regarding the possibility of integrating the information from national systems into the electronic reporting system, she suggested that aligning the reporting system with the many different national systems would be challenging but said that the Secretariat was open to further discussions on that topic and other ways of making the system more user friendly.
- 171. One representative said that his country required additional support from the Secretariat with the collection of data and its submission though the electronic reporting system.
- 172. The Conference of the Parties adopted the draft decision set out in document UNEP/POPS/COP.8/20, on the understanding that it would be revised to incorporate any new chemicals listed in the annexes to the Stockholm Convention at the current meeting and pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 173. Decision SC-8/17, on reporting pursuant to Article 15 of the Stockholm Convention, as adopted by the Conference of the Parties, is set out in annex I to the present report.

I. Effectiveness evaluation

174. Under the sub-item the Parties discussed the effectiveness evaluation overall and the global monitoring plan for the effectiveness evaluation.

1. Effectiveness evaluation

- 175. Introducing the matter, the President recalled that the effectiveness evaluation committee appointed by the Conference of the Parties at its seventh meeting, in accordance with the process adopted by the Conference of the Parties at its sixth meeting, had undertaken the first evaluation of the effectiveness of the Convention required by Article 16 of the Convention. Continuing the introduction the representative of the Secretariat described the conduct of the evaluation and the preparation of the report presenting its results, outlining the information in document UNEP/POPS/COP.8/22. The full report on the results of the evaluation was set out in document UNEP/POPS/COP.8/INF/40, the executive summary of the report (in all six official languages of the Convention) in document UNEP/POPS/COP.8/22/Add.1 and a report by the effectiveness evaluation committee on the experience with the use of the effectiveness evaluation framework and recommendations for its further development in UNEP/POPS/COP.8/INF/41.
- 176. Following that introduction Mr. Ramón Guardans (Spain), Chair of the global coordination group, made a presentation on the most important findings of the global monitoring plan and Ms. Anne Daniel (Canada) and Mr. Linroy Christian (Antigua and Barbuda), the Chair and Vice-Chair of the effectiveness evaluation committee, gave a joint presentation on the main findings, conclusions and recommendations presented in the effectiveness evaluation report.
- In his presentation, Mr. Guardans said that the documents presented were part of a long-term process of global cooperation, with both international and national bodies contributing valuable data. The main message to be drawn from the global monitoring plan was that regulations targeting persistent organic pollutants were succeeding in reducing levels of persistent organic pollutants in humans and in the environment. For persistent organic pollutants listed in 2004, concentrations measured in air and human populations had declined and continued to decline or remain at low levels due to restrictions on persistent organic pollutants that predated the Stockholm Convention and had been incorporated into it. There had been a considerable increase in the quantity of good-quality monitoring data since 2009, especially in developing countries, which had greatly assisted the development of the global monitoring report. In addition, for many substances, data from long-term studies were increasingly becoming available and would prove very useful for monitoring progress and guiding future actions. Looking ahead to the next phase, the main challenges related to sustaining and consolidating existing levels of cooperation and monitoring; developing strategies to deal with the growing list of substances of concern; tracking alternatives from an early stage to identify any potential concerns; and harnessing new analytical tools to make effective use of the growing body of data. In conclusion, he said that the main aims were to gather high-quality data and to make them available in order to enhance the understanding of persistent organic pollutants and deal with them more effectively.
- 178. Commencing the presentation on the main findings, conclusions and recommendations presented in the effectiveness evaluation report, Ms. Daniel summarized the process for effectiveness evaluation, including its purpose, the framework adopted, the establishment of the effectiveness evaluation committee and the stages in which information had been gathered from a wide range of sources and then synthesized and evaluated. The committee had held two meetings in 2016. Regarding

the overall outcomes, the committee had concluded that the Convention provided an effective and dynamic framework for regulating persistent organic pollutants; that inadequate implementation was a key issue; that a lack of data constituted a major challenge; that the mechanisms and processes for supporting Parties in meeting their obligations had been put in place, with the exception of compliance procedures; and that regulations targeting persistent organic pollutants were succeeding in reducing levels of pollutants in humans and the environment. Ms. Daniel and Mr. Christian then summarized the main findings, conclusions and recommendations of the evaluation for each article of the Convention. Key findings included that there was a need to sustain global monitoring of persistent organic pollutants in the long term; to further develop and strengthen national regulatory systems and inventories; and to build capacity to deal with specific substances. In addition, Parties should make every effort to develop and maintain up-to-date action plans, including the application of best available techniques and best available practices; to improve the quality of their inventories, national reporting and data collection mechanisms; and to accelerate their efforts relating to the sound management of stockpiles and wastes. More generally, the need to strengthen technical assistance and technology transfer activities, and to provide additional sustainable financial resources, was highlighted, with the review and updating of national implementation plans recognized as a priority. Finally, the necessity of establishing a compliance mechanism was stressed.

- 179. In the ensuing discussion, there was general appreciation for the work that had been performed by the effectiveness evaluation committee and the quality and comprehensiveness of the accompanying documentation. Many of those who spoke expressed support for the recommendations emerging from the evaluation. One representative, speaking on behalf of a group of countries, encouraged continuation of the work under the global monitoring plan and expressed support for the revised mandate and terms of reference of the regional organization groups and the global coordination group. One representative stressed the need for more information and data in order to accelerate progress.
- 180. Many representatives said that further technical assistance, technology transfer and financial resources were needed to enable developing country Parties and Parties with economies in transition to meet their obligations under the Convention. One representative said that support should focus on priority activities to maximize impact and suggested that South-South cooperation should be promoted in order to pool expertise and experience. Several representatives said that technical assistance was urgently needed to help developing countries to deal with stockpiles of both identified and unidentified substances. One said that greater focus should be placed, under Article 11, on biopesticides as an alternative to synthetic pesticides, which had been shown to have adverse effects on vulnerable groups, including women and children. Another representative highlighted the elimination of PCBs as a particular challenge requiring technical and financial support.
- 181. There was some discussion of the matter of compliance under Article 17 of the Convention, with several representatives urging Parties to strive for agreement on the establishment of a compliance mechanism. Several representatives identified a linkage between compliance and technical and financial support, including for the updating of national implementation plans and inventories. One representative said that many countries were facing problems in updating their national implementation plans due to shortcomings in technical assistance, technology transfer and financing mechanisms, including the interim financing mechanism under GEF. A study was needed on why the financial mechanism had failed to provide the support necessary to enable Parties to update their plans. One representative said that the report laid too much emphasis on monitoring and evaluation and lacked specific detail on the reasons for the lack of effective implementation of the Convention and of the decisions of the Parties at the national level, as well as of the failures of the financial mechanism to meet its obligations, which had limited Party access to technical and financial resources. Such matters needed to be clarified to pave the way for any further discussion of compliance.
- 182. The representative of UNEP highlighted the contribution that the programme had made to the work of the effectiveness evaluation committee by providing relevant information, as well as the support that it had provided to Parties in monitoring and generating data on persistent organic pollutants, as part of its efforts to assist Parties in implementing the Stockholm Convention and to protect human health and the environment from persistent organic pollutants.
- 183. Following the discussion the Conference of the Parties adopted the draft decision set out in document UNEP/POPS/COP.8/22.
- 184. Decision SC-8/18, on effectiveness evaluation, as adopted by the Conference of the Parties, is set out in annex I to the present report.

2. Global monitoring plan

- 185. The representative of the Secretariat introduced the matter, reporting that the global monitoring plan's global coordination group had prepared a second global monitoring report, which included conclusions and recommendations pertaining to the third phase of the global monitoring plan and proposed amendments to the terms of reference for the global coordination group and the regional coordination groups. The report was set out in full in document UNEP/POPS/COP.8/INF/38, the executive summary of the report (in all six official languages of the Convention) in document UNEP/POPS/COP.8/21/Add.1 and a draft decision on the matter in document UNEP/POPS/COP.8/21.
- 186. In the ensuing discussion, all representatives who took the floor welcomed the second report and the progress to date. One representative said the report demonstrated that decisions were being made on an informed basis and were fulfilling the objective of the Convention. A few representatives said that monitoring was needed at additional sites to allow for greater coverage at the regional level and thereby improve the evaluation of trends with regard to persistent organic pollutants in core media.
- 187. A number of representatives said that participation in the global monitoring programme had improved analytical capacity in some countries but a number said that support for developing countries in their efforts to provide monitoring data had to be strengthened, especially with regard to new persistent organic pollutants. Speaking on behalf of a group of countries, another representative said that financial support for the work of the global monitoring programme should come from the Convention trust fund, especially in relation to activities described in paragraphs 6 (a) and 6 (b) of the draft decision. Challenges faced by Parties included a need for financial support for the collection of data on new persistent organic pollutants and laboratory evaluations, including at the clinical level; a need to strengthen monitoring mechanisms; a need for assistance in clearly identifying chemicals contained in articles; a need for further strengthening analytical capability; and a need for the training of laboratory technicians.
- 188. Following the discussion the Conference of the Parties adopted the draft decision set out in document UNEP/POPS/COP.8/21, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 189. Decision SC-8/19, on the global monitoring plan for effectiveness evaluation, as adopted by the Conference of the Parties, is set out in annex I to the present report.

J. Compliance

- 190. The discussion summarized in the present section, on compliance (agenda item 5 (j)), took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 191–222 below are replicated in the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 118–149, and in the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), paragraphs 126–157.
- 191. Introducing the item, the President indicated that matters relating to compliance under each of the three conventions would be discussed sequentially, with each President presiding over the discussions pertaining to his convention.

1. Basel Convention

192. The representative of the Secretariat introduced the matter, indicating that the principal subjects to be considered at the current meeting were the report of the Committee Administering the Mechanism for Promoting Implementation and Compliance on its activities during the biennium 2016–2017 (UNEP/CHW.13/9, sects. II B and II C), which included recommendations in respect of both the Committee's general review mandate and its specific submission mandate, and the election of five new members of the Committee. Draft guidance on illegal traffic (UNEP/CHW.13/9/Add.1) and proposed revisions to the revised reporting format and the forms for notifying the designation of country contacts and import/export restrictions or prohibitions (UNEP/CHW.13/9/Add.2) were also before the Conference of the Parties for consideration. She highlighted the generous financial support for the Committee that had been provided by the Governments of Colombia, Japan, Norway and Switzerland and by the European Union.

- 193. Mr. Juan Simonelli (Argentina), Chair of the Implementation and Compliance Committee, gave a presentation, highlighting some of the activities and recommendations detailed in document UNEP/CHW.13/9. Regarding the work of the Committee on specific submissions, he outlined the progress made in dealing with the 13 specific submissions considered at the Committee's twelfth meeting. He added that the Committee recommended that it be mandated to explore options for strengthening institutional links with the executive board of the Special Programme to support institutional strengthening at the national level for implementation of the Basel, Rotterdam and Stockholm conventions, the Minamata Convention and the Strategic Approach, to ensure mutual support between the two bodies and the efficient use of resources. As to the work under the general review mandate, he drew attention to the activities and recommendations related to national reporting, national legislation, illegal traffic, guidance on insurance, bonds and other guarantees and the control system. On the matter of reporting he pointed out that the targets set at the twelfth meeting of the Conference of the Parties to improve the completeness and timely submission of national reports had not been met, with only nine of the 178 Parties with an obligation to submit full reports for 2013 having done so by the stated deadline. In concluding, he drew attention to the Committee's proposed programme of work for 2018-2019, which included new areas of work for the consideration of the Conference of the Parties, and expressed appreciation for, among other things, the cooperation of Parties in the activities of the Committee and the financial support provided by Parties, including through the implementation fund.
- In the ensuing discussion, many participants voiced appreciation for the work of the Implementation and Compliance Committee. One representative said that the mechanism should assist Parties to implement the Convention and be simple, transparent and not overly rigid. He said that it should help Parties to provide reports with the required information within required timelines and improve coordination between all authorities such that information could be provided on product inventorying and scheduling, and he added that additional guidelines for the preparation of reports and inventories should be developed. Another representative said that the mechanism worked well and that Parties viewed it as supportive rather than punitive. He added that his country was pleased to continue to support the implementation fund. Another representative urged that work towards the development of guidance on Article 11 agreements and arrangements with non-Parties continue. Another representative, speaking on behalf of a group of countries, said that the Committee should keep its activities consistent with its programme of work and mandate. He drew attention to conference room papers submitted by the European Union and its member States that contained suggestions for amendments to the guidance on illegal traffic and the format for national reporting, saying that another conference room paper would be submitted proposing changes to the draft decision and to the Committee's programme of work. Supported by another representative he expressed concern regarding the proposed further work on electronic approaches to the control system and said that the possible establishment of an intersessional group as well as the previously mentioned issues could be discussed in a contact group. Another representative said that amending the terms of reference of the Committee merited further discussion and that she would have some recommendations on a few items of the work programme.
- 195. One representative said that he had submitted a conference room paper reflecting concerns with the reporting format. Regarding the classification of Parties' compliance performance with regard to reporting, he objected to the naming of Parties and, suggesting that even developed countries did not always have the capacity to complete their national reporting, said that the mechanism must retain the spirit of the Convention by building the capacity of countries to implement its objectives. Another representative said that the proposed additional paragraph for the terms of reference of the Committee should reflect a non-punitive, non-adversarial and conciliatory mechanism, which was not the way it was currently drafted.
- 196. A few representatives drew attention to the low level of reporting, with one adding that it was not clear whether the Committee had carried out a study to understand the reason why there had been so little reporting and another suggesting that the reason was that there was no new information to report. One representative said that since the existing reporting system was not being well implemented it might not be effective to impose additional requirements that might improve the process but would require additional funding that had not yet been identified.
- 197. Several representatives said that there was a need for technical and financial assistance, training and capacity-building in respect of reporting. One representative said that the Special Programme could assist countries with such needs. He added that it was important to accelerate the mechanism so that reporting could be carried out in a timely manner and consistently between the three conventions.

- 198. Several representatives outlined their countries' experience in matters related to compliance and identified challenges faced, including a lack of infrastructure resulting in hazardous waste needing to be treated abroad, national situations that led to the spread of hazardous wastes and chemicals, a need for assistance with the return of illegal goods to their points of origin, improvement of feedback on reports submitted and a lack of national legislation and inventories of all processes for fighting against waste products.
- 199. Following the discussion the Conference of the Parties established a contact group on Basel Convention compliance and legal matters, co-chaired by Mr. Simonelli and Mr. Geri-Geronimo Romero Sañez (Philippines). The group was asked to prepare for consideration by the Conference of the Parties to the Basel Convention at a subsequent session a draft decision using the draft decision in document UNEP/CHW.13/9 as a starting point and taking into account the discussion outlined above; a revised draft of the guidance set out in document UNEP/CHW.13/9/Add.1; and revised proposed revisions to the revised reporting format and the forms for notifying the designation of country contacts and import/export restrictions or prohibitions set out in document UNEP/CHW.13/9/Add.2 and the conference room papers submitted by the European Union and its member States and India.
- 200. Following the establishment of the contact group the President said that it was vital for all Parties to the Convention, especially those not in a position to participate in intersessional processes, to have the time to review the outcomes of such processes so that they could come to meetings of the Conference of the Parties prepared for their consideration and possible adoption. The regional preparatory meetings were key to that preparatory work, as was careful planning to ensure that the outcomes of intersessional processes were finalized in a timely manner. To that end, he had asked the Secretariat to prepare a schedule for intersessional work to ensure that all products of intersessional groups under the Basel Convention were complete by the end of October 2018 so that they would be ready for consideration and possible adoption at the fourteenth meeting of the Conference of the Parties.
- 201. Subsequently the Conference of the Parties to the Basel Convention adopted, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018-2019, the draft decision prepared by the contract group, in which, among other things, it adopted a revised version of the draft guidance on illegal traffic (UNEP/CHW.13/9/Add.1/Rev.1) and further revised versions of the reporting format and forms for notifying the designation of country contacts and import/export restrictions and prohibitions (UNEP/CHW.13/9/Add.2/Rev.1).
- 202. Decision BC-13/9, on the Committee Administering the Mechanism for Promoting Implementation and Compliance, as adopted by the Conference of the Parties, is set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28).

2. Rotterdam Convention

- The representative of the Secretariat introduced the matter, outlining the information in document UNEP/FAO/RC/COP.8/18 and recalling that at its seventh meeting, as at all its previous meetings, the Conference of the Parties to the Rotterdam Convention had discussed but had not achieved consensus on adoption of the procedures and mechanisms on compliance required under Article 17 of the Convention. By its decision RC-7/6, the Conference of the Parties had accordingly decided that it would further consider the procedures and mechanisms for adoption early in the course of its eighth meeting, using the draft text in the annex to the decision (reproduced for the current meeting in annex I to document UNEP/FAO/RC/COP.8/18) as the starting point for its discussions, and had invited the Bureau to facilitate consultations among Parties in the period between its seventh and eighth meetings to promote a policy dialogue on outstanding issues. In the course of those consultations, following the submission of views by Parties, the Presidents of the three conferences of the Parties had submitted to the bureaux of the three Conventions a proposal that the Conference of the Parties to the Rotterdam Convention consider for adoption the procedures and mechanisms on compliance in plenary at the beginning of the 2017 meetings. Concluding the introduction of the document, she said that the compromise text and draft decision by the co-chairs of the contact group that had considered the matter at the seventh meeting of the Conference of the Parties was set out in annex II to document UNEP/FAO/RC/COP.8/18.
- 204. The President said that as a result of the consultations held since the seventh meeting of the Conference of the Parties, it appeared that there was no longer any objection to the adoption of the procedures and mechanisms on compliance. He proposed that the Conference of the Parties adopt the draft decision set out in annex II to document UNEP/FAO/RC/COP.8/18, with minor adjustments to

reflect that it was being adopted at the eighth rather than the seventh meeting of the Conference of the Parties.

- 205. In the ensuing discussion, it was widely acknowledged that the establishment of compliance procedures was required by the Convention, that compliance with the Convention was crucial to its success, and that the compliance procedure to be established should contribute to the effective implementation of the Convention and be facilitative, transparent and non-punitive in nature. Many representatives, including one speaking on behalf of a group of countries, emphasized that the provision of adequate financial and technical assistance was closely linked to the effective implementation of the Convention and thus compliance.
- 206. Several representatives called for the examination of the draft text on procedures and mechanisms on compliance with the Rotterdam Convention and the links between compliance and financial resources and technical assistance, including with regard to how the term compliance should be defined. One called for amending the Convention to create a dedicated financial mechanism to support implementation. Other representatives, including a number speaking on behalf of groups of countries, said that compliance procedures could be agreed to at the current meeting based on the compromise text and draft decision achieved at the seventh meeting of the Conference of the Parties. Several of those representatives, including one speaking on behalf of a group of countries, said that discussion should be limited to issues on which there was disagreement at the end of the seventh meeting of the Conference of the Parties, as indicated by the presence of square brackets around relevant paragraphs in the draft text. Another representative underscored that, at the seventh meeting of the Parties, his country had not agreed to the text on procedures and mechanisms on compliance with the Rotterdam Convention.
- 207. Following the discussion, it was agreed that the matter would be further considered during the separate sessions of the eighth meeting of the Conference of the Parties to the Rotterdam Convention.
- Following resumption of the consideration of the matter of compliance a regionally balanced friends-of-the-President group chaired by the President was established to look at the way forward. The President subsequently presented for adoption a compromise version of the annexes to document UNEP/FAO/RC/COP.8/18 that he had prepared following consultations in the friends-of-the-President group in an effort to accommodate the concerns of those opposing the proposed compliance mechanism and procedures in their current form while respecting the position of others that matters on which tentative agreement had been reached at the sixth and seventh meetings of the Conference of the Parties should not be reopened. In introducing the compromise version he noted in particular that a Party-to-Party trigger could only be effected following consultation with the Party concerned to allow it to correct any misunderstandings and that the proposed compliance committee would have to ensure that it was taking into account the Party's national circumstances in drafting its recommendations; that while the committee could adopt decisions by a four-fifths majority, any recommendations put forward by the committee to the Conference of the Parties for adoption would need to be approved by the Conference of the Parties by consensus; and that any Party being reviewed should receive information and advice from the committee to facilitate its preparation of a voluntary plan for meeting its obligations under the Convention. He also highlighted a new paragraph in the related draft decision stating that the procedures and mechanisms should be facilitative, non-punitive and non-adversarial.
- 209. In the ensuing discussion one representative said that the President's compromise version did not adequately capture his country's position. Supported by several other representatives, he said among other things that only a few Parties had had a chance to examine it in detail; that it therefore reflected the views of a relatively small group of Parties; and that debate should continue and not be limited to provisions enclosed in square brackets in the draft text in annex I to document UNEP/FAO/RC/COP.8/18. One representative, supported by another, called for further discussion in a contact group.
- 210. Several other representatives, on the other hand, including one speaking on behalf of a group of countries, commended the President on his work and, expressing dismay at the failure to achieve consensus, opposed any further discussion of text on which tentative agreement had been reached at previous meetings of the Conference of the Parties.
- 211. The President then indicated that while some representatives had expressed concern regarding his compromise proposal none had objected to its adoption, and he accordingly announced that it had been adopted. Several representatives, asking that their comments be reflected in the present report, argued strongly in response that they had indeed objected to the adoption of the compromise proposal. They also said that the President's announcement that his proposal had been adopted was invalid, with one Party objecting to the announcement.

- 212. At a subsequent session, one Party, asking that its comment be reflected in the present report, requested that the quorum for the debate to proceed be verified, which was done by the Secretariat and announced by the President. The debate then continued with the President saying that, in the light of the comments mentioned in the previous paragraph, it had become clear that there was no consensus on his proposal and that the Conference of the Parties had not in fact adopted his proposed compromise text, and he then withdrew that text as a proposed basis for further discussion.
- 213. Regarding the basis for further discussion of compliance at future meetings of the Conference of the Parties, several representatives, including one speaking on behalf of a group of countries, reiterated their position that discussion should proceed from the tentative agreement that had been reached at the seventh meeting of the Conference of the Parties and, with one Party referring to the importance of incremental negotiations, that draft text set out in the annex to decision RC-7/6 that was not enclosed in square brackets should not be reopened. Citing the proposition that "nothing is agreed until everything is agreed", a number of other representatives argued that all provisions of the draft compliance procedures and mechanisms remained open for debate and that future discussions should reflect all positions put forth at the current meeting, including in relevant conference room papers. Another representative said that aspects of the consensus decision-making procedures were blocking progress in the operation and further development of the Convention.
- 214. Given the lack of consensus, the Conference of the Parties decided to defer further consideration of compliance to its ninth meeting.

3. Stockholm Convention

- The representative of the Secretariat introduced the matter, outlining the information in document UNEP/POPS/COP.8/23 and recalling that at its seventh meeting and all previous meetings the Conference of the Parties to the Stockholm Convention had discussed but had not achieved consensus on adoption of the procedures and mechanisms on compliance required under Article 17 of the Convention. By its decision SC-7/26, the Conference of the Parties had accordingly decided that it would further consider the procedures and mechanisms for adoption early in the course of its eighth meeting and had invited the Bureau to facilitate consultations among Parties in the period between its seventh and eighth meetings to promote a policy dialogue on outstanding issues. In the course of those consultations, following the submission of views by Parties, the Presidents of the three conferences of the Parties had submitted to the bureaux of the three conventions a proposal that the issue of compliance be taken up by a friends-of-the-President group early in the course of the 2017 meetings. She also noted that in considering the draft procedures and mechanisms on compliance the Conference of the Parties might wish to take into account relevant recommendations of the effectiveness evaluation committee (UNEP/POPS/COP.8/22/Add.1, paras. 151-169, 179 and 180), which included a recommendation that the Conference of the Parties adopt procedures and mechanisms on compliance at the current meeting.
- 216. Continuing the introduction the President said that the Conference of the Parties could commence its work based on either of the two versions of the draft procedures and mechanisms text set out in the annex to document UNEP/POPS/COP.8/23: the first version as it stood at the close of the sixth meeting of the Conference of the Parties, at which time there were four principal issues outstanding, and the second as it stood at the close of the seventh meeting of the Conference of the Parties, which reflected several additional outstanding issues raised at that meeting.
- 217. In the ensuing discussion many representatives, including several speaking on behalf of groups of countries, underscored the importance of establishing an effective compliance mechanism. A number of representatives said that compliance and the provision of adequate financial and technical assistance to developing countries were linked. Several representatives, including a number speaking on behalf of groups of countries, said that discussion of the matter should move forward on matters on which agreement had not yet been reached and should not reopen previous discussions. Another representative proposed the establishment of a contact group to discuss remaining substantial issues and views.
- 218. Following the discussion the Conference of the Parties established a contact group, co-chaired by Ms. Daniel and Mr. Humphrey Mwale (Zambia), to consider the matter for a period of three hours, after which the co-chairs would report to the plenary on the outcome of the group's discussions.
- 219. Following the work of the contact group the Conference of the Parties decided that a regionally balanced friends-of-the President group co-chaired by Ms. Daniel and Mr. Mwale would consider the matter further with a focus on the outstanding issues and with the aim of preparing for its consideration a draft decision taking into account the discussions in plenary and in the contact group.

- 220. At a subsequent session, the co-chair of the friends-of-the-President group reported that the group had continued the discussions initiated in the contact group on the outstanding issues common to both versions of the draft procedures and mechanisms text set out in the annex to document UNEP/POPS/COP.8/23, namely, triggers and measures, until one delegation had expressed strong concern over the operating format that had been set for the group. The Conference of the Parties therefore decided to resume consideration of the matter in the contact group. At a subsequent session, the co-chair of the contact group reported that the group had held general discussions on 16 elements put forward by a group of countries, and subsequently discussed, without reaching agreement, how to further consider the matter of compliance at the next meeting of the Conference of the Parties.
- 221. Several representatives, including one speaking on behalf of a group of countries, said that, given that no agreement on any issue had been reached at the present meeting, future discussions of the matter should be based on the two versions of the draft procedures and mechanisms text set out in the annex to document UNEP/POPS/COP.8/23. Several other representatives, said that deliberations on the matter at the ninth meeting of the Conference of the Parties should also give equal consideration to the discussions, and the proposals introduced, at the current meeting. One representative said that the entire text was open for further negotiation and requested that the Secretariat compile all relevant documents, including proposals introduced and views expressed at the current meeting, to produce a comprehensive text as the basis for future discussions.
- 222. Given the lack of consensus, the Conference of the Parties decided to defer further consideration of the matter of compliance to its ninth meeting.

K. International cooperation and coordination

- 223. The discussion summarized in the present section, on international cooperation (agenda item 5 (k)), took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 224–235 below are substantially identical to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 207–218, and the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), paragraphs 200–211.
- 224. The representative of the Secretariat introduced the documents relevant to the sub-item, which outlined the activities of the Secretariat in respect of international cooperation and coordination undertaken in response to decisions BC-12/17, RC-7/9 and SC-7/27, including contributions that the three conventions could make to implementation of the 2030 Agenda, cooperation with UNEP in the implementation of resolutions adopted by the United Nations Environment Assembly and cooperation with other entities both within and beyond the chemicals and waste cluster. She also introduced information documents setting out reports submitted by the Executive Director of UNEP, the secretariat of the Strategic Approach and the interim secretariat of the Minamata Convention. Observing that the aim of cooperation was to enhance the effectiveness of the implementation of the conventions and to increase efficiency and effectiveness in the use of resources and expertise, the President opened the floor, suggesting that Parties, building upon the draft decision in document UNEP/CHW.13/19-UNEP/FAO/RC/COP.8/20-UNEP/POPS/COP.8/24, might wish to consider additional efforts under the conventions to support achievement of the Sustainable Development Goals.
- In the ensuing discussion there was general consensus that enhanced international cooperation and coordination were essential to the implementation of the three conventions and the 2030 Agenda for Sustainable Development. One representative said that the management of chemicals and wastes under the three conventions was aligned with the spirit of the Sustainable Development Goals, particularly goal 12, and with the three pillars of sustainable development. Another representative said that the 2030 Agenda included many Sustainable Development Goals related to the environmentally sound management of chemicals and wastes and that their associated targets could only be achieved through the effective and efficient use of resources through enhanced cooperation and collaboration involving all actors and that the three conventions had already demonstrated what could be achieved through a synergistic approach. Another representative said that the complexity and ambition of the 2030 Agenda should not divert attention from the universality and interdependence of the Sustainable Development Goals. One representative said that synergies between the three conventions and other United Nations entities should lead to actual direct cooperation rather than just the identification of areas of mutual interest. Another representative said that it was essential that countries fully comply with their obligations under the chemicals and waste conventions as they committed to delivering on the Sustainable Development Goals.

- 226. Several representatives offered proposals for further elements that might be included in the draft decision. The representative of the European Union and its member States, introducing a conference room paper on the matter, said that reference should be made to the adoption of the 2030 Agenda for Sustainable Development, integration of the sound management of chemicals and waste in a number of the Sustainable Development Goals and work under the Strategic Approach. Another representative said that the draft decision should draw on the work of other entities, such as UNDP and FAO, to assist Governments in mainstreaming sound chemicals and waste management into their development activities. Another representative said that the draft decision should include those organizations and entities with which the Secretariat was requested to enhance cooperation and coordination, including the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes.
- 227. Several representatives commented on the balance between obligations under international agreements and the right of individual countries to follow their own development agendas. One representative said that the Sustainable Development Goals were aspirational rather than binding and that countries retained flexibility regarding the development of national indicators. While synergies with the Sustainable Development Goals were to be welcomed, linkages with national reporting related to the three conventions should be avoided. Another representative called for further study of the implications for Parties of bringing the Sustainable Development Goals into the domain of the three conventions. Another representative stressed the voluntary nature of the national review processes that would form part of the follow-up and review mechanisms of the 2030 Agenda.
- 228. One representative, speaking on behalf of a group of countries, encouraged Parties and regional and intergovernmental organizations with experience in implementing measures in relation to the Sustainable Development Goals to provide inputs to the Secretariat for subsequent circulation among the Parties to guide them in implementing the three conventions within the context of the 2030 Agenda.
- 229. The representative of UNEP highlighted some issues discussed in the Executive Director's report to the conferences of the Parties (UNEP/CHW.13/INF/56-UNEP/FAO/RC/COP.8/INF/46-UNEP/POPS/COP.8/INF/59), including the outcomes of the second session of the United Nations Environment Assembly and priority matters that would be considered during the third session, the theme of which "pollution-free planet" was closely aligned with the objectives of the three conventions. In addition, he said, several of the elements of the UNEP programme of work provided opportunities for integration with work under the three conventions.
- 230. The representative of the interim secretariat of the Minamata Convention and the secretariat of the Strategic Approach highlighted the main areas of cooperation between those entities and the three conventions, particularly in the context of the lead-up to the first meeting of the Conference of the Parties to the Minamata Convention, the efforts to achieve the 2020 goal for sound chemicals management and the recent launch of an intersessional process for preparing recommendations on the sound management of chemicals and waste beyond 2020.
- 231. The representative of UNIDO gave a statement on the Joint Declaration of Intent on Chemical Leasing signed in November 2016 between UNIDO, Austria, Germany and Switzerland. Chemical leasing, he said, was a new and innovative business model that could contribute to inclusive and sustainable industrial development and sound chemicals management. The initiative was closely aligned with the principles of the 2030 Agenda and the objectives of the three conventions and could contribute to and stimulate the engagement of industry and the public sector to translate those objectives into business opportunities.
- 232. The representative of the Economic Commission for Europe gave an update on activities under the Convention on Long-range Transboundary Air Pollution, which was the first convention to deal with air pollution on a regional basis. Its protocol on persistent organic pollutants currently covered 16 substances. The convention gave a prominent role to science, not just in providing information but also in guiding policy. The protocol's long-term strategy called for greater linkages with the work of the Stockholm Convention.
- 233. The representative of the United Nations Environment Management Group gave a report on the group's work to enhance coordination in the United Nations system to address the global challenge of e-waste. The Environment Management Group had established an Inter-agency Issue Management Group on Tackling E-waste in 2016 to facilitate further synergies, including with the Basel, Rotterdam and Stockholm conventions, in promoting e-waste prevention and environmentally sound management. A draft report had been prepared by the inter-agency issue management group on a coordinated approach to e-waste management in the United Nations system.

- 234. Following the discussion, the President noted that the proposals referred to in footnote 16 of document UNEP/CHW.13/19-UNEP/FAO/RC/COP.8/20-UNEP/POPS/COP.8/24 could be further considered by the Conference of the Parties to the Basel Convention during its discussion of national reporting.
- 235. The conferences of the Parties decided that the joint contact group on the review of the synergies arrangements and other joint issues, established as described in section VI A below (para. 245), should consider the matter further with the aim of preparing for their consideration at a subsequent joint session a draft decision based on the draft decision in document UNEP/CHW.13/19-UNEP/FAO/RC/COP.8/20-UNEP/POPS/COP.8/24, taking into account the discussion on the matter and the content of the conference room paper presented by the European Union and its member States.
- 236. Following the work of the contact group the Conference of the Parties to the Stockholm Convention adopted a revised version of the draft decision set out in document UNEP/CHW.13/19-UNEP/FAO/RC/COP.8/20-UNEP/POPS/COP.8/24 prepared by the contact group.
- 237. Decision SC-8/20, on international cooperation and coordination, as adopted by the Conference of the Parties to the Stockholm Convention, is set out in annex I to the present report.
- 238. In addition the conferences of the Parties to the Basel and Rotterdam conventions adopted decisions on international cooperation and coordination that were substantially identical to the decision adopted by the Conference of the Parties to the Stockholm Convention. Decisions BC-13/16 and RC-8/10, as adopted by the conferences of the Parties to the Basel and Rotterdam conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), respectively.
- 239. During the consideration of the decision, one representative said that while he supported its adoption he regretted that neither it nor document UNEP/CHW.13/19-UNEP/FAO/RC/COP.8/20-UNEP/POPS/COP.8/24 made reference to the Samoa Pathway. Such a reference would facilitate linkages between secretariats of multilateral environmental agreements, such as the Secretariat of the Basel, Rotterdam and Stockholm conventions, small island developing States and the wider sustainable development agenda, in the light of a report by the United Nations Joint Inspection Unit on the United Nations system and the implementation of the Samoa Pathway.

VI. Enhancing cooperation and coordination among the Basel, Rotterdam and Stockholm conventions (agenda item 6)

- 240. The discussion summarized in the present section, on enhancing cooperation among the Basel, Rotterdam and Stockholm conventions (agenda item 6), took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 241–245, 249–250, 254–255, 259–260 and 264-265 below are substantially identical to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 260–264, 268–269, 273–274, 278–279 and 283–284, and the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), paragraphs 217–221, 225-226, 230–231, 235–236 and 240–241.
- 241. Introducing the item, the President said that it encompassed five topics: the reviews of the synergies arrangements between the Basel, Rotterdam and Stockholm conventions; the clearing-house mechanism for information exchange; mainstreaming gender; illegal traffic and trade; and "from science to action". Each topic would be discussed separately.

A. Review of the synergies arrangements

242. The representative of the Secretariat introduced the matter, outlining the information in document UNEP/CHW.13/22-UNEP/FAO/RC/COP.8/21-UNEP/POPS/COP.8/25 and recalling that by decisions BC-12/20, RC-7/10 and SC-7/28 the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions had mandated three reviews of the three conventions' synergies arrangements: a review of the matrix-based management approach and organization of the Secretariat; a review of the proposals set out in the note by the Secretariat on the organization and operation of the part of the Rotterdam Convention Secretariat hosted by FAO to enhance synergies arrangements; and a review of the overall synergies arrangements, including joint activities and joint managerial functions. A steering committee, comprising the Presidents of the three conferences of the Parties, the

executive secretaries and Deputy Executive Secretary of the three conventions, the Corporate Services Division of UNEP and the Evaluation Office of UNEP, had overseen the conduct of the three reviews by an independent consulting company. Reports on the results of the reviews, including 40 recommendations on various thematic issues directed to various audiences, were before the conferences of the Parties in documents UNEP/CHW.13/INF/44-UNEP/FAO/RC/COP.8/INF/30-UNEP/POPS/COP.8/INF/47, UNEP/CHW.13/INF/45-UNEP/FAO/RC/COP.8/INF/31-UNEP/POPS/COP.8/INF/48 and UNEP/CHW.13/INF/43-UNEP/FAO/RC/COP.8/INF/29-UNEP/POPS/COP.8/INF/46, respectively, and a compilation of the recommendations and actions proposed in response thereto was set out in document UNEP/CHW.13/22/Add.1-UNEP/FAO/RC/COP.8/21/Add.1-UNEP/POPS/COP.8/25/Add.1.

- 243. In the ensuing discussion several representatives, including a number speaking on behalf of groups of countries, welcomed the reviews, saying that the synergies process had provided important benefits for the operation and management of the Secretariat and the implementation of the conventions, including in advancing the environmentally sound management of chemicals and wastes throughout their life cycles. Many said that the synergies process and its benefits should be focused on assisting countries to implement key provisions of the conventions more effectively, including with regard to, inter alia, reporting, technology transfer, financial resources, administrative costs and burdens and the environmentally sound management of chemicals and wastes. Several representatives, including one speaking on behalf of a group of countries, expressed support for the intent of the draft decision on the matter, with several representatives introducing proposals for amendments and calling for their discussion in a contact group. The representative of the European Union and its member States introduced a conference room paper on the subject and the representative of Kenya, speaking on behalf of the countries of his region, indicated that those countries would also submit a conference room paper.
- 244. Some representatives underscored what they said were the potential advantages of including the Minamata Convention in aspects of the synergies arrangements, including potentially co-locating its secretariat with, or integrating its secretariat into, the Secretariat of the Basel, Rotterdam and Stockholm conventions, and expressed support for requesting the Secretariat to examine the potential impact of, and potential modalities for, doing so. While only the parties to the Minamata Convention could take decisions regarding their secretariat, and nothing that occurred at the current meetings would prejudge such decisions, it would be appropriate to signal to the parties to the Minamata Convention that the Parties to the Basel, Rotterdam and Stockholm conventions were open to exploring the issue. Several other representatives said that it was premature to hold formal discussions of synergies with the Minamata Convention before the Conference of the Parties to that convention had discussed issues related to its secretariat at its first meeting.
- 245. Following the discussion the conferences of the Parties established a joint contact group on the review of the synergies arrangements and other joint issues, co-chaired by Ms. Jane Stratford (United Kingdom of Great Britain and Northern Ireland) and Mr. Nguyen Anh-Tuan (Viet Nam), to prepare for their consideration at a subsequent joint session a draft decision using the draft decision in document UNEP/CHW.13/22-UNEP/FAO/RC/COP.8/21-UNEP/POPS/COP.8/25 as a starting point and taking into account the conference room papers introduced relevant to the issue and the discussion in plenary.
- 246. Subsequently the Conference of the Parties to the Stockholm Convention adopted a draft decision prepared by the contact group, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 247. Decision SC-8/21, on enhancing cooperation and coordination among the Basel, Rotterdam and Stockholm conventions, as adopted by the Conference of the Parties to the Stockholm Convention, is set out in annex I to the present report.
- 248. In addition the conferences of the Parties to the Basel and Rotterdam conventions adopted decisions on enhancing cooperation and coordination among the Basel, Rotterdam and Stockholm conventions that were substantially identical to the decision adopted by the Conference of the Parties to the Stockholm Convention. Decisions BC-13/18 and RC-8/11, as adopted by the conferences of the Parties to the Basel and Rotterdam conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), respectively.

B. Clearing-house mechanism

- 249. The representative of the Secretariat introduced the matter, outlining the information in document UNEP/CHW.13/23-UNEP/FAO/RC/COP.8/22-UNEP/POPS/COP.8/26 and recalling that by decisions BC-12/21, RC-7/11 and SC-7/29 the conferences of the Parties had taken note of the proposed joint clearing-house mechanism strategy prepared by the Secretariat, invited Parties and others to comment on the strategy and requested the Secretariat to make information in 11 priority thematic areas available through the clearing-house mechanism and to revise the proposed strategy. A revised version of the proposed strategy (UNEP/CHW.13/INF/47-UNEP/FAO/RC/COP.8/INF/33-UNEP/POPS/COP.8/INF/50) and a draft biennial workplan prepared by the Secretariat based on the draft revised workplan (UNEP/CHW.13/INF/48-UNEP/FAO/RC/COP.8/INF/39-UNEP/POPS/COP.8/INF/43) were before the conferences of the Parties.
- 250. Following the introduction, the conferences of the Parties decided that the contact group on the review of the synergies arrangements and other joint issues established as described in section VI A above (para. 245) should consider the matter further with the aim of preparing a draft decision for their consideration at a subsequent joint session using the draft decision in document UNEP/CHW.13/23-UNEP/FAO/RC/COP.8/22-UNEP/POPS/COP.8/26 as a starting point and taking into account a conference room paper previously submitted by the European Union and its member States.
- 251. Subsequently the Conference of the Parties to the Stockholm Convention adopted a draft decision prepared by the contact group, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 252. Decision SC-8/22, on the clearing-house mechanism for information exchange, as adopted by the Conference of the Parties to the Stockholm Convention, is set out in annex I to the present report.
- 253. In addition the conferences of the Parties to the Basel and Rotterdam conventions adopted decisions on the clearing-house mechanism that were substantially identical to the decision adopted by the Conference of the Parties to the Stockholm Convention. Decisions BC-13/19 and RC-8/12, as adopted by the conferences of the Parties to the Basel and Rotterdam conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), respectively.

C. Mainstreaming gender

- 254. In the discussion of the sub-item, one representative said that the issue of mainstreaming gender was important both to the operation and effectiveness of the Basel, Rotterdam and Stockholm conventions and the achievement of the Sustainable Development Goals and offered several amendments to the relevant draft decision. A number of other representatives said that those amendments and those in a conference room paper submitted by the European Union and its member States warranted further discussion.
- 255. The conferences of the Parties decided that the contact group on the review of the synergies arrangements and other joint issues established as described in section VI A above (para. 245) should consider the matter further with the aim of preparing a draft decision for their consideration at a subsequent joint session using the draft decision in document UNEP/CHW.13/20-UNEP/FAO/RC/COP.8/19-UNEP/POPS/COP.8/19 as a starting point and taking into account the discussion in plenary and a conference room paper previously submitted by the European Union and its member States.
- 256. Subsequently the Conference of the Parties to the Stockholm Convention adopted a draft decision prepared by the contact group, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 257. Decision SC-8/23, on mainstreaming gender, as adopted by the Conference of the Parties to the Stockholm Convention, is set out in annex I to the present report.
- 258. In addition the conferences of the Parties to the Basel and Rotterdam conventions adopted decisions on mainstreaming gender that were substantially identical to the decision adopted by the Conference of the Parties to the Stockholm Convention. Decisions BC-13/20 and RC-8/13, as adopted by the conferences of the Parties to the Basel and Rotterdam conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its

thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), respectively.

D. Illegal traffic and trade

- 259. The representative of the Secretariat introduced the matter, outlining the information in document UNEP/CHW.13/24-UNEP/FAO/RC/COP.8/23-UNEP/POPS/COP.8/27 and recalling that at their 2015 meetings the conferences of the Parties had requested the Secretariat to prepare recommendations on possible synergies between the Basel, Rotterdam and Stockholm conventions in preventing and combating illegal traffic and trade in hazardous chemicals and wastes, building on lessons learned under the Basel Convention. In the absence of financial support for such work the Secretariat had developed a number of such recommendations based on an analysis of possible synergies in preventing and combating illegal traffic and trade in hazardous chemicals and wastes (UNEP/CHW.12/INF/51) that it had prepared for the consideration of the Conference of the Parties to the Basel Convention at its 2015 meeting.
- 260. Following the introduction the conferences of the Parties decided that the contact group on the review of the synergies arrangements and other joint issues established as described in section VI A above (para. 245) should consider the matter further with the aim of preparing a draft decision for their consideration at a subsequent joint session using the draft decision in document UNEP/CHW.13/24-UNEP/FAO/RC/COP.8/23-UNEP/POPS/COP.8/27 as a starting point and taking into account a conference room paper previously submitted by the European Union and its member States.
- 261. Subsequently the Conference of the Parties to the Stockholm Convention adopted a draft decision prepared by the contact group, as orally amended and pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 262. Decision SC-8/24, on synergies in preventing and combating illegal traffic and trade in hazardous chemicals and wastes, as adopted by the Conference of the Parties to the Stockholm Convention, is set out in annex I to the present report.
- 263. In addition the conferences of the Parties to the Basel and Rotterdam conventions adopted decisions on synergies in preventing and combating illegal traffic and trade in hazardous chemicals and wastes that were substantially identical to the decision adopted by the Conference of the Parties to the Stockholm Convention. Decisions BC-13/21 and RC-8/14, as adopted by the conferences of the Parties to the Basel and Rotterdam conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), respectively.

E. From science to action

- 264. The representative of the Secretariat introduced the matter, outlining the information in document UNEP/CHW.13/25-UNEP/FAO/RC/COP.8/24-UNEP/POPS/COP.8/28 and recalling that at their 2015 meetings the conferences of the Parties had requested the Secretariat to develop a road map for further engaging Parties and other stakeholders in informed dialogue for enhanced science-based action in the implementation of the conventions at the regional and national levels, taking into account the roles of the scientific bodies of the conventions. In response to the decision the Secretariat, in consultation with the experts of the scientific bodies of the conventions, regional centres and other relevant stakeholders and taking into account the results of an online survey of Parties and other stakeholders, had prepared a draft road map for consideration by the conferences of the Parties at the current meetings. The draft roadmap was set out in annex I to document UNEP/CHW.13/INF/50-UNEP/FAO/RC/COP.8/INF/35-UNEP/POPS/COP.8/INF/52 and a summary of the results of the online survey in annex II to the same document.
- 265. Following the introduction, the conferences of the Parties decided that the contact group on the review of the synergies arrangements and other joint issues established as described in section VI A above (para. 245) should consider the matter further with the aim of preparing a draft decision for their consideration at a subsequent joint session using the draft decision in document UNEP/CHW.13/25-UNEP/FAO/RC/COP.8/24-UNEP/POPS/COP.8/28 as a starting point and taking into account a conference room paper previously submitted by the European Union and its member States.
- 266. Subsequently the Conference of the Parties to the Stockholm Convention adopted a draft decision prepared by the contact group, pending confirmation from the contact group on budget

matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.

- 267. Decision SC-8/25, on from science to action, as adopted by the Conference of the Parties to the Stockholm Convention, is set out in annex I to the present report.
- 268. In addition the conferences of the Parties to the Basel and Rotterdam conventions adopted decisions on from science to action that were substantially identical to the decision adopted by the Conference of the Parties to the Stockholm Convention. Decisions BC-13/22 and RC-8/15, as adopted by the conferences of the Parties to the Basel and Rotterdam conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), respectively.

VII. Programme of work and budget (agenda item 7)

- 269. The discussion summarized in the present section, on the programme of work and budget (agenda item 7), took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 270–276 below are replicated in the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 289–295, and in the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), paragraphs 246–252.
- 270. Introducing the item, the President said that it was key to ensuring that the 2018–2019 programmes of work included the activities and resources needed to support the implementation of the three conventions, while ensuring the continuation of the activities of the previous biennium, and that the Secretariat's staff and financial resources were managed efficiently and effectively in a way that responded to the needs of the three conventions and in conformity with United Nations policies and procedures.
- 271. The representative of the Secretariat then continued the introduction, outlining the information in document UNEP/CHW.13/26-UNEP/FAO/RC/COP.8/25-UNEP/POPS/COP.8/29 and the related tables in document UNEP/CHW.13/INF/51-UNEP/FAO/RC/COP.8/INF/36-UNEP/POPS/COP.8/INF/53. He said that in preparing the budget proposal the executive secretaries had attempted to assure the core capacity of the Secretariat to service meetings of the Parties and to provide technical assistance and scientific, technical and legal support to Parties; to strengthen the science-based action required for implementing the conventions; to ensure adequate capacity to mobilize, manage and efficiently administer resources; to prioritize core budget resources for essential activities; and to provide a conservative and realistic assessment of the requirements for 2018–2019. In response to decisions BC-12/25, RC-7/15 and SC-7/33, the Secretariat was presenting two budget scenarios for consideration by the conferences of the Parties. The first assumed zero nominal growth compared with the budget for 2016–2017, while the second represented the executive secretaries' assessment of the amount necessary to provide a similar level of services to those provided during the 2016–2017 biennium.
- 272. Regarding the implications of the two scenarios, the executive secretaries' scenario would allow the continuation of the approved programme of work for 2016–2017, along with a number of new activities, and would involve an average increase of 3 per cent across the three conventions. The zero nominal growth scenario envisaged a reduction in the core services provided by the Secretariat, including a 42 per cent reduction in the number of translated pages of pre-session documents for the meetings of the conferences of the Parties and the replacement of face-to-face meetings of the three individual bureaux with video conferences. The scenario also envisaged that certain activities currently funded from the core budgets would henceforth be funded from the voluntarily-funded budgets. In addition, based on an analysis of recent trends in voluntary funds raised during the preceding years, the voluntary fund budget proposal was reduced by 37 per cent to reflect the shortfalls that had been experienced in recent years. It was noted that the staff requirements were the same in the two scenarios.
- 273. As to the format of the budget, it had been necessary to change it owing to the adoption by the United Nations of the International Public Sector Accounting Standards (IPSAS) in 2014 and the implementation of the Umoja enterprise resource planning system in June 2015. Umoja's cost-sharing functionality enabled the equitable sharing of staff costs and savings among the conventions, and it was thus considered unnecessary to establish a single operational account for staff costs as had been

recommended by the United Nations Office of Internal Oversight Services. In addition, it was noted that the detailed information previously provided in the budget proposals was available in activity fact sheets on the activities in the proposed programme of work (UNEP/CHW.13/INF/52-UNEP/FAO/RC/COP.8/INF/37-UNEP/POPS/COP.8/INF/54).

- 274. He also drew attention to the financial reports for the current biennium (UNEP/POPS/COP.8/INF/55/Rev.2) and highlighted issues with regard to difficulties caused by the implementation of Umoja, growth in arrears in contributions to the Conventions, which had increased beyond the amount of the working capital reserve and a drop, as noted above, in voluntary contributions. Information on donors that had contributed to the implementation of the three conventions and the activities that they had funded was provided in document UNEP/CHW.13/INF/55-UNEP/FAO/RC/COP.8/INF/43-UNEP/POPS/COP.8/INF/57. He expressed particular thanks to those countries that had generously supported the participation of representatives of developing country Parties and Parties with economies in transition in the current meetings.
- 275. In conclusion, he recalled that FAO continued to provide the Rotterdam Convention Secretariat with \$1.5 million per biennium and noted that during the period 1999–2015 the FAO part of the Secretariat had accumulated an unspent balance of \$994,524 that would be returned to the Rotterdam Convention general trust fund in 2017 (UNEP/FAO/RC/COP.8/INF/51).
- 276. Following the presentation the conferences of the Parties established a joint contact group on budget matters for the three conventions, chaired by Mr. Osvaldo Álvarez-Pérez (Chile). The group was asked to prepare for consideration and separate adoption by the conferences of the Parties draft programmes of work and budgets for the biennium 2018–2019 and related draft decisions.
- 277. Subsequently the Conference of the Parties to the Stockholm Convention adopted a draft decision prepared by the contact group.
- 278. Decision SC-8/27, on the programme of work and budget for the Stockholm Convention for the biennium 2018–2019, as adopted by the Conference of the Parties to the Stockholm Convention, is set out in annex I to the present report.
- 279. In addition, the conferences of the Parties to the Basel and Rotterdam conventions adopted decisions on the programmes of work and budgets for those conventions for the biennium 2018–2019. Decisions BC-13/24 and RC-8/17, as adopted by the conferences of the Parties to the Basel and Rotterdam conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), respectively.

VIII. Venue and date of the ninth meeting of the Conference of the Parties (agenda item 8)

280. The conferences of the Parties decided to hold their next meetings in Geneva from 29 April to 10 May 2019 in a format similar to that of the 2017 meetings, with joint sessions covering matters of relevance to at least two of the three conventions and separate sessions of the meetings of each of the three conferences of the Parties. They also decided that the 2019 meetings would not feature a high-level segment and that such segments would occur only at every second set of meetings of the conferences of the Parties.

IX. Other matters (agenda item 9)

A. Memorandums of understanding between UNEP, FAO and the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions

281. The discussion summarized in the present section, on memorandums of understanding between UNEP, FAO and the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions, took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 282–287, below are substantially identical to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 301–306, and the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), paragraphs 258–263.

- 282. Introducing the matter, the representative of the Secretariat recalled that at their previous meetings the three conferences of the Parties had reviewed draft memorandums of understanding with UNEP regarding the provision of secretariat services, following which they had, in decisions BC-12/24, RC-7/14 and SC-7/32, noted that many of the issues addressed in the draft memorandums of understanding were being discussed by a task team established by the Executive Director in response to decision 27/13 of the UNEP Governing Council, on the effectiveness of the administrative arrangements and programmatic cooperation between UNEP and the multilateral environmental agreements for which it provided secretariat services, including the Basel, Rotterdam and Stockholm conventions; decided to wait for the task team to finalize its work before taking a final decision on the memorandums of understanding; and requested the Executive Secretary to prepare, in consultation with the Executive Director and taking into account the outcome of the deliberations of the Environment Assembly at its second session, revised draft memorandums of understanding for consideration by the conferences of the Parties at their 2017 meetings. At its second session, in its resolution 2/18, the Environment Assembly, noting the work of the task team, had requested the Executive Director, in consultation with the secretariats of the UNEP-administered multilateral environmental agreements, to develop for consideration by the governing bodies of those multilateral environmental agreements a draft flexible template of options for the provision of secretariat services. In the same resolution the Environment Assembly had also requested the Executive Director, when delegating authority to the heads of the multilateral environment agreement secretariats, to maintain the flexibility required on a case-by-case basis, including reflecting the size of the secretariats.
- 283. As had been reported to and discussed with the bureaux during the intersessional period, work on the draft template of options was expected to be completed in time for consideration by the Environment Assembly at its third session, in December 2017. Accordingly, no revised draft memorandums of understanding had been prepared for consideration by the conferences of the Parties at the 2017 meetings. As to delegations of authority, a policy and framework on that subject had entered into force on 1 November 2016 and, on 30 January 2017, had been supplemented by a direct delegation of authority to the Executive Secretary of the Basel, Rotterdam and Stockholm conventions; both the policy and framework and direct delegation covered matters covered by the draft memorandums of understanding, and the full extent of that overlap would be examined during the development of the draft template of options.
- 284. The representative of UNEP then provided additional information about the delegation of authority policy and framework and related matters, confirming that UNEP had taken administrative actions pursuant to decisions BC-12/24, RC-7/14 and SC-7/32, as well as in accordance with Environment Assembly resolution 2/18, and saying that the new delegation of authority policy and framework simplified, standardized and streamlined the delegation of authority from the Executive Director to the heads of the multilateral environmental agreement secretariats and of other bodies for which UNEP provided the secretariat or secretariat functions.
- 285. In the ensuing discussion one representative, speaking on behalf of a group of countries, said that the memorandums of understanding were a long-standing issue to which his delegation attached great importance. He noted with concern that no draft memorandums of understanding were being presented for consideration and possible adoption at the current meetings.
- 286. As to the statement in paragraph 9 of document UNEP/FAO/RC/COP.8/26 that FAO saw no need for a memorandum of understanding between the Director General of FAO and the Conference of the Parties to the Rotterdam Convention "unless the Conference of the Parties to the Rotterdam Convention holds different views", he said that as reflected in its decisions RC-6/15 and RC-7/14 the Conference of the Parties to the Rotterdam Convention had already twice determined that such a memorandum of understanding was necessary.
- 287. Following those comments, the conferences of the Parties decided that the contact group on the review of synergies arrangements and other joint issues established as described in section VI A above (para. 245) should consider the matter further with the aim of preparing draft decisions for consideration by the conferences of the Parties.
- 288. Subsequently the Conference of the Parties to the Stockholm Convention adopted a draft decision prepared by the contact group.
- 289. Decision SC-8/26, on the draft memorandum of understanding between the United Nations Environment Programme and the Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants, as adopted by the Conference of the Parties, is set out in annex I to the present report.

290. In addition, the conferences of the Parties to the Basel and Rotterdam conventions adopted decisions on draft memorandums of understanding with UNEP and, in the case of the latter, FAO. Decisions BC-13/23 and RC-8/16, as adopted by the conferences of the Parties to the Basel and Rotterdam conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), respectively.

B. Admission of observers

- 291. The discussion summarized in the present section, on the admission of observers, took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 292–294 below are replicated in the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 311–313, and in the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), paragraphs 268–270.
- 292. The representative of the Secretariat introduced the matter, recalling that at their meetings in 2015 the conferences of the Parties had requested the Secretariat to maintain its current practices with regard to the admission of observers to meetings under the Conventions, including the use of the previously approved application forms to be used by bodies or agencies wishing to be represented as observers at such meetings. She then briefly outlined the procedures by which the requests were transmitted by such bodies and agencies and reviewed by the Secretariat. She also drew attention to documents UNEP/CHW.13/INF/57/Rev.1, UNEP/FAO/RC/COP.8/INF/9 and UNEP/POPS/COP.8/INF/56/Rev.1, which set out lists of the bodies and agencies requesting admission to participate in the respective meetings as observers. The attention of the meeting was drawn to a number of additional bodies and agencies that were also requesting admission to participate in the meetings as observers but that had transmitted their applications after the deadline to be included in the relevant documents.
- 293. Following the presentation one representative, asking that his statement be reflected in the current report, said that the Secretariat should strive to ensure that the participation of observers that were non-governmental organizations was in conformity with relevant United Nations resolutions.
- 294. The conferences of the Parties took note of the information provided.

C. Certification to be submitted in connection with exports to a non-Party

- 295. The representative of the Secretariat introduced the sub-item, outlining the information in document UNEP/POPS/COP.8/31 and recalling that at its sixth meeting the Conference of the Parties had adopted a template for the annual certification to be submitted, in accordance with paragraphs 2 (b) (iii) and 2 (d) of Article 3 of the Convention, by Parties exporting chemicals listed in Annex A or Annex B to the Convention with specific exemptions or acceptable purposes to States not Party to the Convention. The Secretariat, she said, had revised the template, as set out in document UNEP/POPS/COP.8/31/Add.1, to ensure that it was sufficiently generic for use with any chemicals listed in the annexes to the Convention with specific exemptions or acceptable purposes.
- 296. Following the presentation by the representative of the Secretariat, the Conference of the Parties adopted the revised template for the certification for exports to a non-Party pursuant to paragraphs 2 (b) (iii) and 2 (d) of Article 3 set out in document UNEP/POPS/COP.8/31/Add.1 and invited Parties to use it. The revised template as adopted is set out in annex III to the present report.

D. Guidelines on conduct for meeting participants

- 297. The discussion summarized in the present section, on guidelines on conduct for meeting participants, took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 298–301 below are replicated in the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 315–318, and in the report of the Conference of the Parties to the Rotterdam Convention on the work of its eighth meeting (UNEP/FAO/RC/COP.8/27), paragraphs 272–275.
- 298. The representative of the Secretariat drew attention to two sets of guidelines that had been prepared by the Secretariat, the first on the use of cameras and audio and video recording devices at

meetings of the conferences of the Parties and their subsidiary bodies and the second on the participation of observers in such meetings. The guidelines, which had been brought to the attention of the bureaux of the three conferences of the Parties at their meetings in June and July 2016, were available on the convention websites and were reproduced in document UNEP/CHW.13/INF/58-UNEP/FAO/RC/COP.8/INF/47-UNEP/POPS/COP.8/INF/24.

- 299. In the ensuing discussion, one representative requested clarification as to whether the guidelines had been presented for adoption or approval or whether they were already applicable to all meeting participants, suggesting also that paragraph 2 of annex I to the document should be amended to prevent negotiations from being disrupted by incidents of the kind that had occurred at the current meetings, in which the representative of an observer had disseminated pictures taken during contact group discussions via social media. Another representative, speaking on behalf of a group of countries, called on all observers to respect the rules of conduct, and a number of others said that there must be serious consequences for failing to do so, including in the current case, as it threatened to undermine the spirit of mutual trust prevailing among the government representatives participating in the meetings.
- 300. The representative of the Secretariat said in response that the guidelines had been developed by the Secretariat based on the standard practices of other multilateral environmental agreements; that they had been developed in response to expressions of concern regarding similar incidents at the 2015 meetings; and that they were not intended for adoption and had been prepared by the Secretariat pursuant to its inherent prerogative and responsibility to ensure the smooth running of meetings under the conventions. The Secretariat, she concluded, considered that the incident that had taken place at the current meeting was covered by the guidelines as they stood.
- 301. The conferences of the Parties took note of the information provided.

X. Adoption of the report (agenda item 10)

302. The Conference of the Parties adopted the present report on the basis of the draft report set out in documents UNEP/CHW.13/L.1-UNEP/FAO/RC/COP.8/L.1-UNEP/POPS/COP.8/L.1, as orally amended, and UNEP/POPS/COP.8/L.1/Add.1, on the understanding that the finalization of the report would be entrusted to the Rapporteur, in cooperation with the Secretariat, under the authority of the President of the Conference of the Parties.

XI. Closure of the meeting (agenda item 11)

303. Following the customary exchange of courtesies the meeting was declared closed at 6.40 p.m. on Friday, 5 May 2017.

Annex I

Decisions adopted by the Conference of the Parties at its eighth meeting

SC-8/1:	Exemptions		
SC-8/2:	DDT		
SC-8/3:	Polychlorinated biphenyls		
SC-8/4:	Evaluation and review of brominated diphenyl ethers pursuant to paragraph 2 of parts IV and V of Annex A to the Stockholm Convention		
SC-8/5:	Perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride		
SC-8/6:	Toolkit for Identification and Quantification of Releases of Dioxins, Furans and Other Unintentional Persistent Organic Pollutants and guidelines and guidance on best available techniques and best environmental practices		
SC-8/7:	Measures to reduce or eliminate releases from wastes		
SC-8/8:	Implementation plans		
SC-8/9:	Operation of the Persistent Organic Pollutants Review Committee		
SC-8/10:	Listing of decabromodiphenyl ether (commercial mixture, c-decaBDE)		
SC-8/11:	Listing of short-chain chlorinated paraffins		
SC-8/12:	Listing of hexachlorobutadiene		
SC-8/13:	Review of information related to specific exemptions for decabromodiphenyl ether		
SC-8/14:	Review of information related to specific exemptions for short-chain chlorinated paraffins		
SC-8/15:	Technical assistance		
SC-8/16:	Financial mechanism		
SC-8/17:	Reporting pursuant to Article 15 of the Stockholm Convention		
SC-8/18:	Effectiveness evaluation		
SC-8/19:	Global monitoring plan for effectiveness evaluation		
SC-8/20:	International cooperation and coordination		
SC-8/21:	Enhancing cooperation and coordination among the Basel, Rotterdam and Stockholm conventions		
SC-8/22:	Clearing-house mechanism for information exchange		
SC-8/23:	Mainstreaming gender		
SC-8/24:	Synergies in preventing and combating illegal traffic and trade in hazardous chemicals and wastes		
SC-8/25:	From science to action		
SC-8/26:	Draft memorandum of understanding between the United Nations Environment Programme and the Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants		
SC-8/27:	Programme of work and budget for the Stockholm Convention for the biennium 2018-2019		

SC-8/1: Exemptions

The Conference of the Parties,

Noting the priority areas for action recognized in decision SC-8/18 on effectiveness evaluation as they relate to Article 4 of the Stockholm Convention on Persistent Organic Pollutants and relevant parts of Annexes A and B to the Convention,

- 1. *Encourages* Parties to continue to assess in a timely manner the need for exemptions, in particular after the adoption of decisions by the Conference of the Parties to amend Annex A or Annex B to the Convention;
- 2. Reminds Parties that may wish to register specific exemptions, acceptable purposes, chemicals occurring as constituents of articles, or the production and use of chemicals as closed-system site-limited intermediates that are currently available to so notify the Secretariat using the relevant forms;¹
- 3. Requests the Secretariat to continue to maintain and update the forms, registers and related information as appropriate so as to ensure that information is easily accessible to Parties and other stakeholders;
- 4. *Also requests* the Secretariat to continue to assist Parties in their efforts to implement the provisions of the Convention related to specific exemptions and acceptable purposes.

¹ As set out in annex III to the report of the Conference of the Parties on the work of its second meeting (UNEP/POPS/COP.2/30) and the annexes to its decisions SC-1/23, SC-1/25, SC-5/8 and SC-6/2.

SC-8/2: DDT

The Conference of the Parties,

Noting the priority areas for action recognized in decision SC-8/18 on effectiveness evaluation as they relate to DDT,

- 1. *Takes note* of the report by the DDT expert group on the assessment of the continued need for DDT for disease vector control, including the conclusions and recommendations set forth therein;²
- 2. Concludes that countries that rely on indoor residual spraying for disease vector control may need DDT for that purpose in specific settings where locally safe, effective and affordable alternatives are still lacking for a sustainable transition away from DDT;
- 3. *Notes* the necessity of providing technical, financial and other assistance to developing country Parties and Parties with economies in transition for a transition away from reliance on DDT for disease vector control, with due priority accorded to:
- (a) Reporting on DDT by Parties to enable adequate assessment under the Stockholm Convention on Persistent Organic Pollutants, including in particular the mechanism for reporting on use, import and export and stockpiles of DDT and use of other chemicals for indoor residual spraying;
- (b) Ensuring adequate national capacity for research, resistance monitoring and implementation for pilot testing and scaling up of existing alternatives to DDT, as well as ensuring the long-term sustainability of vector control programmes;
- 4. *Urges* Parties to seek guidance from the World Health Organization before considering DDT for the control of vectors of arboviruses;
- 5. Decides to evaluate at its ninth meeting the continued need for DDT for disease vector control on the basis of the available scientific, technical, environmental and economic information, including that provided by the DDT expert group, with the objective of accelerating the identification and development of locally appropriate, cost-effective and safe alternatives;
- 6. *Requests* the Secretariat to continue to support the process set out in annex I to decision SC-3/2 and to assist Parties to promote locally safe, effective and affordable alternatives for a sustainable transition away from DDT;
 - 7. *Takes note* of:
- (a) The report by the United Nations Environment Programme on the implementation of the road map for the development of alternatives to DDT³ and invites the United Nations Environment Programme to continue to lead the implementation of the road map, in consultation with the World Health Organization, the DDT expert group, the Global Alliance for the Development and Deployment of Products, Methods and Strategies as Alternatives to DDT for Disease Vector Control and the Secretariat, and to report on progress in the implementation of the road map to the Conference of the Parties at its ninth meeting;
- (b) The report by the United Nations Environment Programme on progress in the implementation of the Global Alliance for the Development and Deployment of Products, Methods and Strategies as Alternatives to DDT for Disease Vector Control⁴ and invites the United Nations Environment Programme to report on progress in the implementation of the activities of the Global Alliance towards achieving its goals to the Conference of the Parties at its ninth meeting;
- (c) The information reported by the World Health Organization on the use of DDT and DDT alternatives in disease vector control⁵ and welcomes the existing collaboration with the World Health Organization and invites its continued collaboration in the process for the reporting on and assessment and evaluation of the continued need for DDT for disease vector control referred to in paragraph 6 above and in any other manner that may support the Conference of the Parties in future evaluations of the continued need for DDT for disease vector control and in promoting suitable alternatives to DDT for disease vector control;

² UNEP/POPS/COP.8/INF/6, annex I; UNEP/POPS/COP.8/5, annex.

³ UNEP/POPS/COP.8/INF/8.

⁴ UNEP/POPS/COP.8/INF/9.

⁵ UNEP/POPS/COP.8/INF/7.

- 8. *Requests* the Secretariat to continue to participate in the activities of the Global Alliance;
- 9. *Invites* Parties and others to continue to provide technical and financial resources to support the implementation of the activities of the Global Alliance, including the activities set out in the road map.

SC-8/3: Polychlorinated biphenyls

The Conference of the Parties,

Noting the priority areas for action recognized in decision SC-8/18 on effectiveness evaluation as they relate to polychlorinated biphenyls,

- 1. Takes note of the consolidated assessment of efforts to eliminate polychlorinated biphenyls⁶ developed by the Chemicals and Waste Branch of the Division of Technology, Industry and Economics of the United Nations Environment Programme, in cooperation with the Secretariat and in consultation with the advisory committee of the Polychlorinated Biphenyls Elimination Network, and the report on the activities of the Network⁷ prepared by the Chemicals and Waste Branch;
- 2. *Invites* the Chemicals and Waste Branch to provide information on the activities of the Polychlorinated Biphenyls Elimination Network to the Conference of the Parties at its ninth meeting;
- 3. Encourages Parties to step up their efforts, inter alia by developing and implementing rigorous plans for the environmentally sound management of polychlorinated biphenyls throughout their life cycles, including their elimination and destruction, to meet the goals of the Stockholm Convention to eliminate the use of polychlorinated biphenyls in equipment by 2025 and to achieve the environmentally sound waste management of liquids containing polychlorinated biphenyls and equipment contaminated with polychlorinated biphenyls having a content above 0.005 per cent no later than 2028;
- 4. *Encourages* Parties to endeavour to identify, as soon as possible, open applications such as cable sheaths, cured caulk and painted objects containing more than 0.005 per cent polychlorinated biphenyls and to manage them in accordance with paragraph 1 of Article 6 of the Convention and requests the Secretariat, subject to the availability of resources, to consolidate the existing guidance on this issue;
- 5. *Invites* Parties and others in a position to do so to support developing countries and countries with economies in transition in their efforts to meet their outstanding needs to manage polychlorinated biphenyls, including in open applications, in an environmentally sound manner;
- 6. *Decides* to undertake, at its ninth meeting, a review of progress towards the elimination of polychlorinated biphenyls in accordance with paragraph (h) of part II of Annex A to the Convention;
- 7. *Encourages* Parties to provide information on progress in eliminating polychlorinated biphenyls in their fourth national reports submitted pursuant to Article 15 of the Convention by 31 August 2018, in accordance with paragraph (g) of part II of Annex A to the Convention, as decided in decision SC-8/17 on reporting pursuant to Article 15 of the Stockholm Convention;
- 8. *Decides* to establish a small intersessional working group, working by electronic means and, subject to the availability of funding, through a face-to-face meeting, to prepare a report on progress towards the elimination of polychlorinated biphenyls for consideration by the Conference of the Parties at its ninth meeting and requests the Secretariat to support the group;
- 9. *Invites* Parties to consider serving as lead country in the preparation of the report referred to in paragraph 8 above and to inform the Secretariat accordingly by 30 June 2017;
- 10. *Invites* Parties and others to nominate experts to participate in the small intersessional working group established in paragraph 8 above and to inform the Secretariat of their nominations by 30 June 2017;
- 11. *Invites* the lead country, or, if there is no lead country, requests the Secretariat, in consultation with the small intersessional working group and subject to the availability of resources, to prepare the report referred to in paragraph 8 above on the basis of the fourth national reports that are required to be submitted by Parties pursuant to Article 15 and any other pertinent information, including the consolidated assessment referred to in paragraph 1 above, for consideration by the Conference of the Parties at its ninth meeting to assist it in the review to be conducted in accordance with paragraph (h) of Part II of Annex A;

⁶ UNEP/POPS/COP.8/INF/10.

⁷ UNEP/POPS/COP.8/INF/11.

- 12. *Requests* the Secretariat, subject to the availability of resources, to continue to participate in the activities of the Polychlorinated Biphenyls Elimination Network and to assist Parties in their efforts in respect of the plans referred to in paragraph 3 above, including by developing guidance and a road map for the implementation of such plans;
- 13. *Invites* Governments, intergovernmental and non-governmental organizations, research institutions, industry bodies and other stakeholders to provide technical and financial support for the work of the Polychlorinated Biphenyls Elimination Network;
- 14. *Highlights* the needs of developing countries and countries with economies in transition for technical assistance, financial support and technology transfer to manage polychlorinated biphenyls in an environmentally sound manner.

SC-8/4: Evaluation and review of brominated diphenyl ethers pursuant to paragraph 2 of parts IV and V of Annex A to the Stockholm Convention

The Conference of the Parties,

Noting the priority areas for action recognized in decision SC-8/18 on effectiveness evaluation as they relate to the elimination of brominated diphenyl ethers⁸ contained in articles,

Recalling that, pursuant to paragraph 6 of Article 3 of the Stockholm Convention, any Party that has a specific exemption in accordance with Annex A to the Convention shall take appropriate measures to ensure that any production or use under such exemption is carried out in a manner that prevents or minimizes human exposure and release into the environment,

- 1. *Takes note* of the report by the Secretariat for the evaluation and review of brominated diphenyl ethers;⁹
- 2. *Notes* from the report referred to in paragraph 1 above that brominated diphenyl ethers have been detected in a range of articles in use, including plastic toys that are not subject to flammability requirements, which suggests that their presence is unintentional and possibly a consequence of the recycling of plastics containing brominated diphenyl ethers;
- 3. *Also notes* that a number of Parties are still registered for specific exemptions for brominated diphenyl ethers;
- 4. *Urges, recalling* decision SC-5/5, Parties and other relevant stakeholders to implement where appropriate, taking into account national circumstances, the recommendations set out in the annex to decision POPRC-6/2 on the elimination from the waste stream of brominated diphenyl ethers and to provide information on progress in doing so to the Conference of the Parties in order to facilitate the evaluation and review of progress in eliminating brominated diphenyl ethers through the process referred to in paragraph 8 below;
- 5. Also urges Parties to take determined steps to ensure that brominated diphenyl ethers are not introduced into articles in which their presence would pose a risk of human exposure, in particular consumer products such as children's toys;
- 6. Urges Parties that have made use of the specific exemptions described in parts IV and V of Annex A to the Convention to accelerate efforts to prevent the export of articles that contain or may contain brominated diphenyl ethers and of articles manufactured from recycled materials that contain brominated diphenyl ethers and levels or concentrations of brominated diphenyl ethers exceeding those permitted for the sale, use, import or manufacture of those articles within their territories, in accordance with their obligations under Annex A;
- 7. *Urges* Parties to strengthen measures for the environmentally sound management of wastes, including products and articles upon becoming wastes, containing or contaminated with brominated diphenyl ethers in accordance with their obligations under Article 6 of the Stockholm Convention and under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, taking into consideration the updated guidance on best available techniques and best environmental practices for the recycling and waste disposal of articles containing polybrominated diphenyl ethers listed under the Stockholm Convention, ¹⁰ the general technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants ¹¹ and the technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with hexabromodiphenyl ether and heptabromodiphenyl ether or tetrabromodiphenyl ether and pentabromodiphenyl ether; ¹²

⁸ Hexabromodiphenyl ether and heptabromodiphenyl ether and tetrabromodiphenyl ether and pentabromodiphenyl ether, listed in Annex A to the Convention in 2009.

⁹ UNEP/POPS/COP.8/INF/12.

¹⁰ Available at:

http://chm.pops.int/Implementation/NIPs/Guidance/GuidanceonBATBEP for the recycling of PBDEs/tabid/3172/Default.aspx.

¹¹ UNEP/CHW.13/6/Add.1/Rev.1.

¹² UNEP/CHW.12/5/Add.6/Rev.1.

- 8. Decides to undertake an evaluation of progress that Parties have made towards eliminating brominated diphenyl ethers contained in articles and a review of the continued need for specific exemptions for those chemicals at its tenth meeting, pursuant to paragraph 2 of parts IV and V of Annex A to the Convention and in accordance with the process set out in the annex to decision SC-6/3 and the schedule set out in the annex to the present decision;
- 9. Encourages Parties to collect information on the types and quantities of brominated diphenyl ethers in articles in use and in the waste and recycling stream and on measures taken to ensure their environmentally sound management pursuant to Article 6 of the Convention and, where appropriate, parts IV and V of Annex A to the Convention and to make that information available to the Secretariat;
 - 10. Requests the Secretariat:
 - (a) To continue to support the process set out in the annex to decision SC-6/3;
- (b) To undertake, subject to the availability of resources, activities to support Parties in collecting the information required for the process set out in the annex to decision SC-6/3 and in implementing measures to facilitate the elimination of brominated diphenyl ethers contained in articles;
- (c) To report to the Conference of the Parties at its tenth meeting on activities undertaken pursuant to paragraphs 10 (a) and 10 (b) above, including recommendations on any modifications to the process or format for consideration and possible adoption by the Conference of the Parties.

Annex to decision SC-8/4

Schedule for the evaluation and review of brominated diphenyl ethers pursuant to paragraph 2 of parts IV and V of Annex A to the Stockholm Convention on Persistent Organic Pollutants

Activity	Timing
Parties submit information on brominated diphenyl ethers.	December 2019
The Secretariat prepares a draft report on the evaluation and review of brominated diphenyl ethers and transmits it to the Persistent Organic Pollutants Review Committee.	September 2020
The Persistent Organic Pollutants Review Committee provides comments on the draft report on the evaluation and review of brominated diphenyl ethers.	October 2020
The Secretariat finalizes the report on the evaluation for consideration by the Conference of the Parties at its tenth meeting.	October 2020
Evaluation by the Conference of the Parties in accordance with paragraph 2 of parts IV and V of Annex A to the Convention.	April 2021

SC-8/5: Perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride

The Conference of the Parties,

Noting the priority areas for action recognized in decision SC-8/18 on effectiveness evaluation as they relate to perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride,

Recalling paragraph 7 of decision SC-7/5, by which it decided to undertake the further evaluation of perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride pursuant to paragraphs 5 and 6 of part III of Annex B to the Stockholm Convention on Persistent Organic Pollutants at its ninth meeting,

- 1. Welcomes the consolidated guidance on alternatives to perfluorooctane sulfonic acid and its related chemicals¹³ developed by the Persistent Organic Pollutants Review Committee;
- 2. Takes note of the options for possible action by the Conference of the Parties should it conclude that there is no continued need for the various acceptable purposes for perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride listed in Annex B to the Convention;¹⁴
- 3. Also takes note of the information related to the interpretation and application of Article 4 of the Convention transmitted by Parties; 15
- 4. *Invites* Parties and others to submit to the Secretariat, by 15 February 2018, the following information for use by the Secretariat in preparing its next report on the evaluation of perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride in accordance with paragraph 6 of the annex to decision SC-6/4 and by the Persistent Organic Pollutants Review Committee in its future updating of the guidance on alternatives to perfluorooctane sulfonic acid and its related chemicals:
 - (a) Information on the production and use of sulfluramid;
- (b) Information on local monitoring of releases of perfluorooctane sulfonic acid from the use of sulfluramid;
- (c) Information on research on and the development of safe alternatives to perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride as stipulated in paragraph 4 (c) of part III of Annex B to the Convention;
- 5. *Encourages* the regional centres and others to provide support to Parties to improve their technical and legal capacity for the sound management of perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride and the introduction of alternatives;
 - 6. *Requests* the Secretariat:
- (a) To continue to support the process set out in the annex to decision SC-6/4, in accordance with the revised schedule set out in the annex to decision SC-7/5, and to support Parties, subject to the availability of resources, in collecting the information required for the process;
- (b) To further promote the exchange of information, including information provided by Parties and others, on alternatives to perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride and their related chemicals;
- (c) To provide support to Parties, in particular developing country Parties and Parties with economies in transition, subject to the availability of resources, to build their capacity to identify and collect information on perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride, to strengthen their legislation and regulations on the management of those chemicals throughout their life cycles and to introduce safer, effective and affordable alternatives to those chemicals.

¹³ UNEP/POPS/POPRC.12/INF/15/Rev.1.

¹⁴ UNEP/POPS/COP.8/8, paras. 10–15.

¹⁵ UNEP/POPS/COP.8/INF/13.

SC-8/6: Toolkit for Identification and Quantification of Releases of Dioxins, Furans and Other Unintentional Persistent Organic Pollutants and guidelines and guidance on best available techniques and best environmental practices

The Conference of the Parties,

Noting the priority areas for action recognized in decision SC-8/18 on effectiveness evaluation as they relate to Article 5 on measures to reduce or eliminate releases from unintentional production,

- 1. *Takes note* of the nominations to the joint Toolkit and best available techniques and best environmental practices expert roster¹⁶ and the reports of the expert meetings on the Toolkit and best available techniques and best environmental practices;¹⁷
- 2. Welcomes the updated guidance on best available techniques and best environmental practices for the use of perfluorooctane sulfonic acid and related chemicals listed under the Stockholm Convention, ¹⁸ the updated guidance on best available techniques and best environmental practices for the recycling and waste disposal of articles containing polybrominated diphenyl ethers listed under the Stockholm Convention ¹⁹ and the draft guidance on best available techniques and best environmental practices for the production and use of hexabromocyclododecane listed with specific exemptions under the Stockholm Convention; ²⁰
- 3. *Also welcomes* the conclusions and recommendations of the experts on the Toolkit and on best available techniques and best environmental practices;²¹
- 4. Adopts the workplan for the ongoing review and update of the Toolkit and the guidelines and guidance on best available techniques and best environmental practices set out in annex I to the present decision and the terms of reference for the review and update of guidelines and guidance to address releases from unintentional production and best available techniques and best environmental practices for the chemicals listed in Annexes A, B and/or C to the Stockholm Convention as set out in annex II to the present decision;
- 5. Requests the experts on the Toolkit and on best available techniques and best environmental practices to continue the work on the ongoing review and updating of the Toolkit and on the guidelines and guidance in accordance with the workplan and the terms of reference referred to in paragraph 4 above;
- 6. Requests the Secretariat, subject to the availability of resources, to continue to support the experts in the work referred to in paragraph 5 above and to continue to implement awareness-raising and technical assistance activities to promote the Toolkit and the guidelines and guidance;
- 7. *Invites* Parties and others to participate actively in the review and updating of the Toolkit, guidelines and guidance and to submit relevant information to the Secretariat for consideration by the experts in accordance with the workplan and the terms of reference referred to in paragraph 4 above;
- 8. Also invites Parties and others to confirm the availability of the current experts in the joint Toolkit and best available techniques and best environmental practices expert roster and to nominate new experts with expertise related to the persistent organic pollutants listed in Annex A, B or C to the Convention to the joint roster;
- 9. Encourages Parties to use the Toolkit, taking into account the conclusions and recommendations of the experts on the Toolkit and on best available techniques and best environmental practices, when developing source inventories and release estimates under Article 5 of the Convention; to report the estimated releases under Article 15 of the Convention according to the source categories identified in Annex C; and to maintain up to date their action plans to minimize and ultimately eliminate releases of unintentionally produced persistent organic pollutants;

¹⁶ UNEP/POPS/COP.8/INF/14.

¹⁷ UNEP/POPS/COP.8/INF/15.

¹⁸ http://chm.pops.int/Implementation/BATandBEP/Guidance/Overview/tabid/5121/Default.aspx.

¹⁹ Ibid.

²⁰ UNEP/POPS/COP.8/INF/16.

²¹ UNEP/POPS/COP.8/9, annex I.

- 10. Also encourages Parties to consider the data quality guidance in the Toolkit and implement quality assurance and quality control as part of the development and updating of the source inventories and release estimates under Article 5 of the Convention;
- 11. Further encourages Parties to use the guidelines and guidance on best available techniques and best environmental practices, taking into account the conclusions and recommendations of the experts on the Toolkit and on best available techniques and best environmental practices, when implementing action plans and other measures to minimize and ultimately eliminate releases of persistent organic pollutants listed in Annexes A, B and/or C to the Convention and to share their experiences in using the guidelines and guidance, such as in the form of case studies, by means of the Stockholm Convention clearing-house mechanism.

Annex I to decision SC-8/6

Workplan for the ongoing review and update of the Toolkit and the guidelines and guidance on best available techniques (BAT) and best environmental practices (BEP)

A. Areas of work

1. Toolkit

- 1. Collect and evaluate new information relevant to the identification and quantification of releases of unintentional persistent organic pollutants, including those listed in the Convention since 2009, i.e., pentachlorobenzene and polychlorinated naphthalenes, ²² for eventual additional inclusion of emission factors in the Toolkit and provision of practical guidance to Parties on how to address these chemicals in their inventories pursuant to Article 5.
- 2. Collect and evaluate information relevant to the identification and quantification of releases of unintentional persistent organic pollutants that would be listed at the eighth meeting of the Conference of the Parties, i.e., hexachlorobutadiene.

2. Guidelines and guidance on BAT and BEP

(a) Guidance on BAT and BEP relevant to the persistent organic pollutants listed in Annex A or B

- 3. Continue to collect and evaluate relevant new information on BAT and BEP for perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride, polybrominated diphenyl ethers²³ and hexabromocyclododecane, made available by Parties and others, including on available chemical and/or non-chemical alternatives as identified by the Persistent Organic Pollutants Review Committee, for eventual further updating of the relevant guidance documents.
- 4. Collect and evaluate information relevant to BAT and BEP for pentachlorophenol and its salts and esters and hexachlorobutadiene listed in Annex A to the Convention for developing relevant guidance.
- 5. Collect and evaluate information relevant to BAT and BEP for the chemicals listed in Annex A to the Convention at the eighth meeting of the Conference of the Parties and assess the need for updating and/or developing additional guidance for those chemicals.

(b) Guidelines on BAT and BEP relevant to the persistent organic pollutants listed in Annex C

6. Continue to collect and evaluate new information on key sources of unintentional persistent organic pollutants as identified by Parties and the Toolkit experts, recently updated BAT reference documents, national documents on BAT and BEP, and other sources of information, and supplement and update the guidelines as appropriate.

²² Polychlorinated naphthalenes, including dichlorinated naphthalenes, trichlorinated naphthalenes, tetrachlorinated naphthalenes, pentachlorinated naphthalenes, hexachlorinated naphthalenes, heptachlorinated naphthalenes and octachlorinated naphthalene.

²³ Tetrabromodiphenyl ether and pentabromodiphenyl ether (commercial pentabromodiphenyl ether) and hexabromodiphenyl ether and heptabromodiphenyl ether (commercial octabromodiphenyl ether).

- 7. Continue to collect and evaluate new information on available alternative techniques and practices and on the use of substitute or modified materials, products and processes and supplement and update the guidelines as appropriate.
- 8. Collect and evaluate information on BAT and BEP for sources of releases of the chemicals that were listed in Annex C to the Convention at the seventh and eighth meetings of the Conference of the Parties, assess the applicability of the existing guidance for those chemicals and supplement and update the guidelines as appropriate.

(c) Sites contaminated by persistent organic pollutants

9. Collect and evaluate information relevant to the identification and management of sites contaminated by persistent organic pollutants for developing relevant guidance.

B. Timelines

Deadline	Activity				
February 2017	Task teams and leads are confirmed and/or newly identified from the joint expert roster for the areas of work included in the workplan				
May 2017	Secretariat invites information submission from Parties and others on the work areas specified in the workplan				
Continue throughout the biennium	Collection and compilation of information from Parties and others for consideration and evaluation by the experts at their annual meeting(s)				
August 2017	Secretariat compiles information submitted by Parties and others to that date and sends the compilation to task teams and leads by 14 August 2017				
	Task teams assess the information and develop proposals for updating existing guidance and/or developing additional guidance for the areas of work included in the workplan:				
September 2017	 Task team leads send the draft proposals to the Secretariat by 11 September 2017 				
	 Secretariat sends the proposals for review by the Toolkit and BAT and BEP experts by 15 September 2017 				
October/November 2017	Joint meeting of the Toolkit and BAT and BEP experts to consider revisions and/or additional guidance according to the proposals by task teams				
	Task teams prepare draft updated guidance and/or draft new guidance on the basis of the evaluation of the information made available and the comments by the Toolkit and BAT and BEP experts at their 2017 meeting				
June-July 2018	 Task team leads send drafts to the Secretariat by 25 June 2018 				
	 Secretariat makes available the drafts on the Stockholm Convention website by 29 June 2018 for comments by the experts and by Parties and others prior to 31 July 2018 				
August 2018	Secretariat compiles additional information submitted by that date and comments from the experts and from Parties and others and sends the compilation to task teams and leads by 5 August 2018				
	Task teams revise the draft updated and/or new guidance on the basis of the comments received and additional information collected				
September 2018	• Task team leads send the drafts to the Secretariat by 24 September 2018				
	 Secretariat makes the drafts available on the Stockholm Convention website by 28 September 2018 for comment by the experts and by Parties and others prior to 19 October 2018 				
October/November 2018	Joint meeting of the Toolkit and BAT and BEP experts to finalize drafts, develop conclusions and recommendations and a workplan for the next biennium for consideration by the Conference of the Parties at its ninth meeting				
January 2019	Task teams finalize the draft guidance and task team leads send the final and/or interim drafts to the Secretariat by 15 January 2019				
May 2019	Ninth meeting of the Conference of the Parties				

Annex II to decision SC-8/6

Terms of reference for the review and update of guidelines and guidance to address releases from unintentional production and best available techniques and best environmental practices for the chemicals listed in Annexes A, B and/or C to the Stockholm Convention

I. Introduction

- 1. By decisions SC-7/7 on the Toolkit for Identification and Quantification of Releases of Dioxins, Furans and Other Unintentional Persistent Organic Pollutants and SC-7/8 on the guidelines on best available techniques and provisional guidance on best environmental practices, the Conference of the Parties recognized that the listing of new substances in Annexes A, B and/or C to the Convention would trigger the need to further update existing guidance and/or develop new guidance to support Parties in implementing new obligations and requested the experts on best available techniques (BAT) and best environmental practices (BEP) and on the Toolkit to collaborate and develop joint terms of reference for synergistically considering aspects relevant to releases from unintentional production and BAT and BEP for the chemicals listed in Annexes A, B and/or C to the Convention.
- 2. Elements of the joint terms of reference were discussed and agreed upon at the expert meetings on BAT and BEP and the Toolkit held in Bratislava, Slovakia, from 29 September to 1 October 2015 and from 25 to 27 October 2016. The terms of reference describe the scope of the review and update process; the general and specific tasks to be performed in the process; the stakeholders to be involved; and the frequency with which the activities and tasks are to be performed.

II. Scope

- 3. Acknowledging the importance of collaboration and information exchange between the experts serving under the various technical and scientific processes under the Basel, Rotterdam and Stockholm conventions with a view to synergistically addressing cross-cutting issues, in addition to source inventories and release estimates from unintentional production, BAT and BEP relevant to all chemicals listed in the annexes to the Convention are considered as they relate to:
- (a) Production of restricted persistent organic pollutants for acceptable purposes as defined in the Convention;
- (b) Use of persistent organic pollutants for acceptable purposes and pursuant to specific exemptions as defined in the Convention;
- (c) Recycling of articles containing persistent organic pollutants pursuant to specific exemptions as defined in the Convention;
- (d) Destruction of persistent organic pollutants and aspects of BAT and BEP relevant to waste management under the Stockholm Convention;
- (e) Identification and management of sites contaminated with persistent organic pollutants;
- (f) Other technical assessment work relevant to releases from unintentional production and BAT and BEP for the chemicals listed in the Convention as requested by the Conference of the Parties and/or other technical and scientific bodies under the Convention.

A. General tasks

4. Considerable time, effort and funds have been invested in the development of existing guidelines and guidance. These guidelines and guidance have been, and continue to be, useful and informative, and do not require major revision. The focus of the work is therefore on necessary updates and the addition of relevant new information triggered by the listing of new substances in Annexes A, B and/or C to the Convention.

- 5. The general tasks to be undertaken in the review and updating process are:
- (a) Evaluating the implications of the newly listed persistent organic pollutants and assessing the need for developing new guidance to address these chemicals;
- (b) Providing information on available alternatives, including home-grown alternatives, and on the use of substitute or modified materials, products and processes and evaluating emerging technologies and improvements to existing technologies;
- (c) Exchanging relevant information and harmonizing activities with the work of other technical and scientific bodies under the Basel, Rotterdam and Stockholm conventions such as the appropriate bodies of the Basel Convention on waste-related aspects and the Persistent Organic Pollutants Review Committee on alternatives to these chemicals;
- (d) Optimizing synergies with other efforts, such as those to combat mercury and to reduce greenhouse-gas emissions through BAT and BEP;
- (e) Conducting other technical assessment work as requested by the Conference of the Parties and/or other technical and scientific bodies under the Conventions;
 - (f) Reporting to the Conference of the Parties.
- 6. The procedures for identifying detailed tasks and activities, to be undertaken as priorities over a set period of time, are outlined below.

B. Stakeholders

- 7. The existing joint Toolkit and BAT and BEP expert roster will be used.
- 8. Experts that have served or are serving in the Persistent Organic Pollutants Review Committee will be consulted and involved in the review and updating process as appropriate.
- 9. Basel Convention experts will be involved in the work related to wastes as appropriate.
- 10. All experts nominated by Parties and others and included in the joint Toolkit and BAT and BEP expert roster will be involved in the review and updating process, at least by electronic means.
- 11. The joint roster will remain open at all times for further nominations.
- 12. Between 25 and 30 nominated experts selected from the roster may be invited by the Secretariat to participate in expert meetings. Participants will be selected taking into account the type of expertise needed at the meetings, in addition to regional and gender balance.
- 13. Up to five additional experts may be invited to provide specific expertise related to the particular topics to be discussed, if such expertise is not available among the experts included in the roster.

C. Procedures, activities and specific tasks

- 14. The review and updating process is driven by Parties and organized and facilitated by the Secretariat. Expert panels focusing on a specific source category or task could be established, led by Parties volunteering to do so.
- 15. Parties and others will be invited to generate relevant data and information to assist in the review and updating process, and to provide that information to the Secretariat.
- 16. Such data and information will be gathered and summarized regularly by the Secretariat and provided for the experts' consideration.
- 17. The experts should perform the following tasks and activities, among others:
 - (a) Develop a detailed workplan and timetable for the review and updating process;
 - (b) Set up the necessary organizational structure (such as expert panels);
- (c) Identify existing gaps, agree on priorities and propose activities for improvement, taking into account any feedback received from Parties and others based on their experience in using the guidelines and guidance;
- (d) Define preliminary outlines for developing new guidelines and guidance as appropriate;

- (e) Collect and evaluate relevant data and information within the scope of the review and updating process;
- (f) Validate data and information according to agreed data quality criteria²⁴ and draft revised or new texts;
- (g) Assess training and capacity-building needs of Parties relevant to their efforts to identify and manage their sources of persistent organic pollutants;
- (h) Take into account, in relation to wastes-related matters, the technical guidelines on persistent organic pollutants wastes adopted by the Conference of the Parties to the Basel Convention;
- (i) Take into account, in relation to alternatives to persistent organic pollutants, the assessment and guidance developed by the Persistent Organic Pollutants Review Committee;
- (j) Exchange any relevant information with other technical or scientific bodies under the Basel and Stockholm conventions;
- (k) Respond to inquiries from Parties on technical aspects to facilitate understanding of the guidelines and guidance.
- 18. Expert meetings will be organized to facilitate the implementation of the activities and tasks outlined above.
- 19. The guidelines and guidance, as revised or developed by the expert panels, will be circulated to all experts for review and comment before being made available through the clearing-house mechanism of the Convention. Parties and others will be invited to review and provide comments.
- 20. The following activities will be further promoted:
 - (a) Sharing and exchanging of information via the clearing-house mechanism;
 - (b) Initiatives for data generation and collection, including case studies;
- (c) Joint activities and projects between developed and developing countries and South-South cooperation;
- (d) Synergies between activities related to releases from unintentional production and BAT and BEP;
 - (e) Awareness-raising.

D. Periodicity

- 21. As new chemicals are listed in the Convention, the guidelines and guidance should be considered as a living document and the process for their review and update should be continuous.
- 22. Expert meetings should be organized as needed, with at least one meeting taking place every two years. Work should, however, continue intersessionally by electronic means, organized by the expert panel leaders and facilitated by the Secretariat.

²⁴ Toolkit for Identification and Quantification of Releases of Dioxins, Furans and Other Unintentional POPs, annex 8: Data Quality. http://toolkit.pops.int/Publish/Annexes/A_08_Annex08.html.

SC-8/7: Measures to reduce or eliminate releases from wastes

The Conference of the Parties,

Noting the priority areas for action recognized in decision SC-8/18 on effectiveness evaluation as they relate to measures to reduce or eliminate releases from stockpiles and wastes,

- 1. Welcomes with appreciation decision BC-13/4 on technical guidelines on persistent organic pollutants, by which the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, at its thirteenth meeting, adopted updated general technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants²⁵ and other technical guidelines specific to persistent organic pollutants listed in that decision;
- 2. *Notes* that the updated general technical guidelines adopted by the Conference of the Parties to the Basel Convention at its thirteenth meeting:
 - (a) Establish provisional definitions for low persistent organic pollutant content;²⁶
- (b) Establish a provisional definition for levels of destruction and irreversible transformation;²⁷
 - (c) Determine methods considered to constitute environmentally sound disposal;²⁸
- 3. *Reminds* Parties to take into account the above-mentioned technical guidelines when implementing their obligations under paragraph 1 of Article 6 of the Convention;
- 4. *Encourages* the introduction and demonstration in developing countries and countries with economies in transition of cost-effective methods selected from those listed in section IV G of the updated general technical guidelines;
- 5. Requests the Secretariat, subject to the availability of resources, to undertake capacity-building and training activities to support Parties in meeting their obligations under paragraph 1 of Article 6 of the Convention, taking into account the above-mentioned technical guidelines;
- 6. *Invites* the appropriate bodies of the Basel Convention, with regard to the chemicals newly listed in Annexes A and C to the Stockholm Convention on Persistent Organic Pollutants by decisions SC-8/10, SC-8/11 and SC-8/12:
- (a) To establish for those chemicals the levels of destruction and irreversible transformation necessary to ensure that the characteristics of persistent organic pollutants, as specified in paragraph 1 of Annex D to the Stockholm Convention, are not exhibited;
- (b) To determine what they consider to be the methods that constitute environmentally sound disposal under paragraph 1 (d) (ii) of Article 6 of the Stockholm Convention;
- (c) To work to establish, as appropriate, the concentration levels in order to define for those chemicals the low persistent organic pollutant content referred to in paragraph 1 (d) (ii) of Article 6 of the Convention;
- (d) To further update, if need be, the general technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants and to update or develop new specific technical guidelines under the Basel Convention;
- 7. Encourages Parties to accelerate their efforts to ensure the sound management of persistent organic pollutant stockpiles and wastes, including their further identification, and to prepare plans of action that prioritize the environmentally sound disposal of wastes;

²⁵ UNEP/CHW.13/6/Add.1/Rev.1.

²⁶ Ibid., sect. III A

²⁷ Ibid., sect. III B

²⁸ Ibid., sect. IV G

8. Encourages Parties and others to improve the availability of data to determine the amounts of specific persistent organic pollutant contained in wastes that have been destroyed or irreversibly transformed, taking into account the recommendation set out in paragraph 102 of the executive summary of the report on the effectiveness evaluation of the Convention.²⁹

²⁹ UNEP/POPS/COP.8/22/Add.1.

SC-8/8: Implementation plans

The Conference of the Parties,

Noting the priority areas for action recognized in decision SC-8/18 on effectiveness evaluation as they relate to implementation plans,

- 1. Welcomes the additional implementation plans transmitted by Parties pursuant to Article 7 of the Stockholm Convention, including revised and updated plans;³⁰
- 2. *Takes note* of the deadlines for the transmission of revised and updated implementation plans;³¹
- 3. *Urges* those Parties that have not transmitted their implementation plans within the deadlines to transmit them as soon as possible;
 - 4. Takes note of the following guidance documents:³²
- (a) Guidance on developing a national implementation plan for the Stockholm Convention on Persistent Organic Pollutants;
- (b) Guidance on preparing inventories of perfluorooctane sulfonic acid and related chemicals listed under the Stockholm Convention on Persistent Organic Pollutants;
- (c) Guidance on preparing inventories of polybrominated diphenyl ethers listed under the Stockholm Convention on Persistent Organic Pollutants;
- (d) Guidance on socioeconomic assessment for national implementation plan development and implementation under the Stockholm Convention;
- (e) Guidance on the calculation of action plan costs for specific persistent organic pollutants under the Stockholm Convention;
 - (f) Guidance on the control of the import and export of persistent organic pollutants;
- (g) Guidance on the labelling of products or articles that contain persistent organic pollutants initial considerations;
- (h) Guidance on the sampling, screening and analysis of persistent organic pollutants in products and articles;
 - (i) Guidance on preparing inventories of hexabromocyclododecane;
 - (j) Draft guidance on preparing inventories of hexachlorobutadiene;³³
 - (k) Draft guidance on preparing inventories of polychlorinated naphthalenes;³⁴
- (l) Draft guidance on preparing inventories of pentachlorophenol and its salts and esters and on identifying alternatives for the phase-out of those chemicals;³⁵
- 5. *Encourages* Parties to use the guidance referred to in paragraphs 4 (a)–(c) above, as appropriate, when developing, reviewing and updating their national implementation plans;
- 6. *Invites* Parties and others to provide comments to the Secretariat on the guidance documents listed in paragraph 4 above by 30 June 2018, including based on their experience in using the guidance documents and on how to improve their usefulness;
- 7. *Invites* the appropriate bodies of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal to review the waste-related aspects of the guidance documents listed in paragraphs 4 (j)–(l) above and to forward the outcome of their review to the Secretariat no later than one week after the eleventh meeting of the Open-ended Working Group for its consideration in the updating of the guidance in line with the request set out in paragraph 8 (a) below;

³⁰ See UNEP/POPS/COP.8/INF/17/Rev.1.

³¹ Ibid

³² The draft guidance documents listed in paragraphs 4 (a)–(i) are available at http://chm.pops.int/Implementation/NIPs/Guidance/tabid/2882/Default.aspx.

³³ UNEP/POPS/COP.8/INF/18.

³⁴ UNEP/POPS/COP.8/INF/19.

³⁵ UNEP/POPS/COP.8/INF/20.

- 8. *Requests* the Secretariat:
- (a) To continue, subject to the availability of resources, to update the guidance documents listed in paragraph 4 above, as appropriate, on the basis of the comments received from Parties and others, including from Basel Convention bodies, as referred to in paragraphs 6 and 7 above;
- (b) To undertake, subject to the availability of resources, capacity-building and training activities to support Parties in order to facilitate the development, review and updating of national implementation plans, taking into account the guidance documents listed in paragraphs 4 (a)–(c) above:
- (c) To develop, as necessary and subject to the availability of resources, new guidance on preparing inventories of the persistent organic pollutants listed by the Conference of the Parties at its eighth meeting in decisions SC-8/10 and SC-8/11;
- (d) To continue to identify any additional guidance that might be required to assist Parties in the development, review and updating of national implementation plans;
- (e) To develop, subject to the availability of resources, an electronic template for the quantitative information included in national implementation plans in a harmonized manner with the reporting under Article 15 of the Convention;
- 9. Also requests the Secretariat, in consultation with the Persistent Organic Pollutants Review Committee and the experts on best available techniques and best environmental practices, taking into account comments from Parties and others, and subject to the availability of resources, to develop draft guidance documents on alternatives for the phase-out of the chemicals listed by the Conference of the Parties at its eighth meeting in decisions SC-8/10 and SC-8/11 for consideration by the Conference of the Parties at its ninth meeting;
- 10. Requests Parties to identify diversified, accessible, predictable and sustainable financial resources as required by the Convention to assist developing countries and countries with economies in transition in updating their national implementation plans under Article 7 of the Convention.

SC-8/9: Operation of the Persistent Organic Pollutants Review Committee

The Conference of the Parties,

Noting the priority areas for action recognized in decision SC-8/18 on effectiveness evaluation as they relate to the listing of chemicals in Annexes A, B and/or C to the Convention,

- 1. Welcomes the reports of the Persistent Organic Pollutants Review Committee on the work of its eleventh and twelfth meetings³⁶ and the documents forwarded by the Committee to the Conference of the Parties;³⁷
- 2. Appoints the 14 designated experts with terms of office commencing on 5 May 2016 to serve as members of the Committee and notes that one vacancy arising during the intersessional period has been filled;³⁸
- 3. Also appoints the 17 designated experts listed in the annex to the present decision to serve as members of the Committee with terms of office commencing on 5 May 2018;³⁹
- 4. Encourages Parties and observers to submit the information specified in Annexes E and F to the Convention and to review and provide to the Committee, through the Secretariat in a timely manner, technical comments on draft risk profiles and draft risk management evaluations to support the development of sound recommendations to the Conference of the Parties and supporting documents on the listing of chemicals in Annexes A, B and/or C to the Convention and in doing so, when relevant, to involve experts working at the national level on the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal;
- 5. *Invites* the Conference of the Parties to the Basel Convention to consider enhancing the involvement of experts working under the Basel Convention in the work of the Committee;
- 6. *Invites* the Committee to strengthen the involvement of experts working under the Basel Convention in its work to facilitate its receipt of improved information on waste and disposal issues;
- 7. *Requests* the Secretariat to facilitate the involvement of experts as referred to in paragraph 6 above;
- 8. Encourages Parties and observers to undertake, within their capabilities, appropriate research, development, monitoring and cooperation pertaining to alternatives to persistent organic pollutants and candidate persistent organic pollutants in accordance with Article 11 of the Convention;
- 9. Requests the Secretariat to continue, subject to the availability of resources, to assist the Committee in collecting information on persistent organic pollutants in products as necessary for its review of chemicals and to provide Parties with guidance on labelling for the chemicals listed in Annexes A and B and to collaborate, as appropriate, with relevant international efforts such as the Chemicals in Products project of the United Nations Environment Programme;
- 10. Also requests the Secretariat to continue, subject to the availability of resources, to undertake activities to support Parties and others to participate effectively in the work of the Committee, as listed in paragraph 1 of decision POPRC-12/7, and to report on the results of those activities to the Conference of the Parties at its ninth meeting.

³⁶ UNEP/POPS/POPRC.11/10 and Add.1-2; UNEP/POPS/POPRC.12/11 and Add.1-5.

³⁷ UNEP/POPS/POPRC.12/INF/9/Rev.1; UNEP/POPS/POPRC.12/INF/12/Rev.1; UNEP/POPS/POPRC.12/INF/15/Rev.1.

³⁸ See UNEP/POPS/COP.8/INF/60.

³⁹ The curricula vitae of these experts are set out in document UNEP/POPS/COP.8/INF/65.

Annex to decision SC-8/9

Experts designated by Parties and appointed as members of the Persistent Organic Pollutants Review Committee with terms of office commencing on 5 May 2018

African States

Mr. Sam Adu-Kumi (Ghana)

Ms. Mantoa Makoena Clementina Sekota (Lesotho)

Ms. Amal Lemsioui (Morocco)

Mr. Nadjo N'Ladon (Togo)

Asia-Pacific States

Mr. Manoj Kumar Gangeya (India)

Mr. Amir Nasser Ahmadi (Islamic Republic of Iran)

Mr. Zaigham Abbas (Pakistan)

Mr. Anass Ali Saeed Al-Nedhary (Yemen)

Central and Eastern European States

Ms. Tamara Kukharchyk (Belarus)

Ms. Svitlana Sukhorebra (Ukraine)

Latin American and Caribbean States

Mr. Luis G. Romero Esquivel (Costa Rica)

Ms. Vilma Morales Quillama (Peru)

Ms. Victorine Augustine Pinas (Suriname)

Western European and other States

Ms. Ingrid Hauzenberger (Austria)

Mr. Jean-François Ferry (Canada)

Ms. Rikke Donchil Holmberg (Denmark)

Mr. Peter Dawson (New Zealand)

SC-8/10: Listing of decabromodiphenyl ether

The Conference of the Parties,

Having considered the risk profile, the risk management evaluation and the addendum to the risk management evaluation for decabromodiphenyl ether (commercial mixture, c-decaBDE) as transmitted by the Persistent Organic Pollutants Review Committee,⁴⁰

Taking note of the recommendation by the Persistent Organic Pollutants Review Committee that decabromodiphenyl ether (BDE-209) of c-decaBDE be listed in Annex A to the Convention with specific exemptions,⁴¹

1. *Decides* to amend part I of Annex A to the Stockholm Convention on Persistent Organic Pollutants to list decabromodiphenyl ether (BDE-209) present in commercial decabromodiphenyl ether therein, with specific exemptions for the production and use of commercial decabromodiphenyl ether, by inserting the following row:

Chemical	Activity	Specific exemption		
Decabromodiphenyl ether	Production	Production As allowed for the Parties listed in the Register		
(BDE-209) present in commercial	Use	In accordance with Part IX of this Annex:		
decabromodiphenyl ether (CAS No: 1163-19-5)		 Parts for use in vehicles specified in paragraph 2 of Part IX of this Annex 		
		 Aircraft for which type approval has been applied for before December 2018 and has been received before December 2022 and spare parts for those aircraft 		
		 Textile products that require anti-flammable characteristics, excluding clothing and toys 		
		 Additives in plastic housings and parts used for heating home appliances, irons, fans, immersion heaters that contain or are in direct contact with electrical parts or are required to comply with fire retardancy standards, at concentrations lower than 10 per cent by weight of the part 		
		Polyurethane foam for building insulation		

2. Also decides to insert a new part IX in Annex A, as follows:

Part IX

Decabromodiphenyl ether

- 1. The production and use of decabromodiphenyl ether shall be eliminated except for Parties that have notified the Secretariat of their intention to produce and/or use it in accordance with Article 4.
- 2. Specific exemptions for parts for use in vehicles may be available for the production and use of commercial decabromodiphenyl ether limited to the following:
 - (a) Parts for use in legacy vehicles, defined as vehicles that have ceased mass production, and with such parts falling into one or more of the following categories:
 - (i) Powertrain and under-hood applications such as battery mass wires, battery interconnection wires, mobile air-conditioning (MAC) pipes, powertrains, exhaust manifold bushings, under-hood insulation, wiring and harness under hood (engine wiring, etc.), speed sensors, hoses, fan modules and knock sensors:
 - (ii) Fuel system applications such as fuel hoses, fuel tanks and fuel tanks under body;

⁴⁰ UNEP/POPS/POPRC.10/10/Add.2; UNEP/POPS/POPRC.11/10/Add.1; UNEP/POPS/POPRC.12/11/Add.4.

⁴¹ UNEP/POPS/COP.8/13.

- (iii) Pyrotechnical devices and applications affected by pyrotechnical devices such as air bag ignition cables, seat covers/fabrics (only if airbag relevant) and airbags (front and side);
- (iv) Suspension and interior applications such as trim components, acoustic material and seat belts.
- (b) Parts in vehicles specified in paragraphs 2 (a) (i)–(iv) above and those falling into one or more of the following categories:
 - (i) Reinforced plastics (instrument panels and interior trim);
 - (ii) Under the hood or dash (terminal/fuse blocks, higher-amperage wires and cable jacketing (spark plug wires));
 - (iii) Electric and electronic equipment (battery cases and battery trays, engine control electrical connectors, components of radio disks, navigation satellite systems, global positioning systems and computer systems);
 - (iv) Fabric such as rear decks, upholstery, headliners, automobile seats, head rests, sun visors, trim panels, carpets.
- 3. The specific exemptions for parts specified in paragraph 2 (a) above shall expire at the end of the service life of legacy vehicles or in 2036, whichever comes earlier.
- 4. The specific exemptions for parts specified in paragraph 2 (b) above shall expire at the end of the service life of vehicles or in 2036, whichever comes earlier.
- 5. The specific exemptions for spare parts for aircraft for which type approval has been applied for before December 2018 and has been received before December 2022 shall expire at the end of the service life of those aircraft.

SC-8/11: Listing of short-chain chlorinated paraffins

The Conference of the Parties,

Having considered the risk profile and the risk management evaluation for short-chain chlorinated paraffins as transmitted by the Persistent Organic Pollutants Review Committee, 42

Taking note of the recommendation by the Persistent Organic Pollutants Review Committee that short-chain chlorinated paraffins be listed in Annex A to the Convention with controls to limit the presence of short-chain chlorinated paraffins in other chlorinated paraffin mixtures, with or without specific exemptions, 43

1. *Decides* to amend part I of Annex A to the Stockholm Convention on Persistent Organic Pollutants to list short-chain chlorinated paraffins therein, with specific exemptions, by inserting the following row:

Chemical	Activity	Specific exemption
Short-chain chlorinated paraffins (Alkanes, C ₁₀₋₁₃ , chloro) ⁺ : straight-chain chlorinated hydrocarbons	Production	As allowed for the Parties listed in the Register
with chain lengths ranging from C ₁₀ to C ₁₃ and a content of chlorine greater than 48 per cent by weight	Use	 Additives in the production of transmission belts in the natural and synthetic rubber industry
For example, the substances with the following CAS numbers may contain short-chain chlorinated paraffins: CAS No. 85535-84-8;		 Spare parts of rubber conveyor belts in the mining and forestry industries Leather industry, in particular fatliquoring in leather
CAS No. 68920-70-7; CAS No. 71011-12-6; CAS No. 85536-22-7; CAS No. 85681-73-8; CAS No. 108171-26-2.		 Lubricant additives, in particular for engines of automobiles, electric generators and wind power facilities, and for drilling in oil and gas exploration and petroleum refining to produce diesel oil
		Tubes for outdoor decoration bulbs
		 Waterproofing and fire-retardant paints
		• Adhesives
		Metal processing
		 Secondary plasticizers in flexible polyvinyl chloride, except in toys and children's products

- 2. Also decides to insert a new note (vii) in part I of Annex A, as follows:
 - (vii) Note (i) does not apply to quantities of a chemical that has a plus sign ("+") following its name in the "Chemical" column in Part I of this Annex that occurs in mixtures at concentrations greater than or equal to 1 per cent by weight.

⁴² UNEP/POPS/POPRC.11/10/Add.2 and UNEP/POPS/POPRC.12/11/Add.3.

⁴³ UNEP/POPS/COP.8/14.

SC-8/12: Listing of hexachlorobutadiene

The Conference of the Parties,

Having considered the risk profile and the risk management evaluation for hexachlorobutadiene, as well as the evaluation of new information in relation to listing hexachlorobutadiene in Annex C to the Convention, as transmitted by the Persistent Organic Pollutants Review Committee, 44

Taking note of the recommendation by the Persistent Organic Pollutants Review Committee that hexachlorobutadiene be listed in Annex C to the Convention and the conclusion of the evaluation of new information on unintentional production of hexachlorobutadiene, ⁴⁵

Decides to amend part I of Annex C to the Convention to list hexachlorobutadiene therein by inserting "Hexachlorobutadiene (CAS No: 87-68-3)" in the "Chemical" table of the Annex and by inserting "hexachlorobutadiene" in the first paragraph of parts II and III of the Annex.

⁴⁴ UNEP/POPS/POPRC.8/16/Add.2; UNEP/POPS/POPRC.9/13/Add.2; UNEP/POPS/POPRC.12/11/Add.5.

⁴⁵ UNEP/POPS/COP.8/15.

SC-8/13: Review of information related to specific exemptions for decabromodiphenyl ether

The Conference of the Parties

- 1. *Invites* each Party listed in the register of specific exemptions for decabromodiphenyl ether listed in Annex A to the Stockholm Convention to report to the Secretariat, by December 2019, justifying its need for the registration of that exemption;
- 2. *Invites* each Party listed in the register of specific exemptions for decabromodiphenyl ether listed in Annex A to the Convention, as well as observers, to provide to the Secretariat, by December 2019, information on the following:
 - (a) Production;
 - (b) Uses:
 - (c) Efficacy and efficiency of possible control measures;
 - (d) Information on the availability, suitability and implementation of alternatives;
 - (e) Status of control and monitoring capacity;
 - (f) Any national or regional control actions taken;
- 3. *Invites* all Parties to provide to the Secretariat, by December 2019, information on progress made in building the capacity of countries to transfer safely to reliance on alternatives to decabromodiphenyl ether;
- 4. *Requests* the Secretariat to compile the information provided in accordance with paragraphs 1–3 above and to make it available to the Persistent Organic Pollutants Review Committee by January 2020;
- 5. Requests the Committee, subject to the availability of resources, to analyse the information referred to in paragraph 4 above and any other pertinent and credible information available and to prepare a report, including any recommendations, for consideration by the Conference of the Parties;
- 6. *Decides*, if any request is received from a Party for an extension of an exemption in the register in accordance with paragraph 1 of the review process set out in the annex to decision SC-3/3, to take into account the report and the recommendations referred to in paragraph 5 above when undertaking its review of entries in the register of specific exemptions for decabromodiphenyl ether.

SC-8/14: Review of information related to specific exemptions for short-chain chlorinated paraffins

The Conference of the Parties

- 1. *Invites* each Party listed in the register of specific exemptions for short-chain chlorinated paraffins listed in Annex A to the Stockholm Convention to report to the Secretariat, by December 2019, justifying its need for the registration of that exemption;
- 2. *Invites* each Party listed in the register of specific exemptions for short-chain chlorinated paraffins listed in Annex A to the Convention, as well as observers, to provide to the Secretariat, by December 2019, information on the following:
 - (a) Production;
 - (b) Uses;
 - (c) Efficacy and efficiency of possible control measures;
 - (d) Information on the availability, suitability and implementation of alternatives;
 - (e) Status of control and monitoring capacity;
 - (f) Any national or regional control actions taken;
- 3. *Invites* all Parties to provide to the Secretariat, by December 2019, information on progress made in building the capacity of countries to transfer safely to reliance on alternatives to short-chain chlorinated paraffins;
- 4. *Requests* the Secretariat to compile the information provided in accordance with paragraphs 1–3 above and to make it available to the Persistent Organic Pollutants Review Committee by January 2020;
- 5. Requests the Committee, subject to the availability of resources, to analyse the information referred to in paragraph 4 above and any other pertinent and credible information available and to prepare a report, including any recommendations, for consideration by the Conference of the Parties;
- 6. Decides, if any request is received from a Party for an extension of an exemption in the register in accordance with paragraph 1 of the review process set out in the annex to decision SC-3/3, to take into account the report and the recommendations referred to in paragraph 5 above when undertaking its review of entries in the register of specific exemptions for short-chain chlorinated paraffins.

SC-8/15: Technical assistance

The Conference of the Parties,

I

Technical assistance

Noting the priority areas for action recognized in decision SC-8/18 on effectiveness evaluation as they relate to technical assistance and the recommendations contained in the report on the overall review of the synergies arrangements, ⁴⁶

- 1. Requests the Secretariat to continue to collect, through the database established for that purpose, information on the technical assistance and capacity-building needs of developing-country Parties and Parties with economies in transition;
- 2. Welcomes the technical assistance plan for the implementation of the Basel, Rotterdam and Stockholm conventions for the period 2018–2021⁴⁷ and requests the Secretariat, subject to the availability of resources, to implement it in cooperation with relevant actors striving to attract the programming capacity and financial resources of relevant international organizations;
 - 3. *Encourages* Parties, regional centres and others:
- (a) To make financial or in-kind contributions to facilitate the availability of capacity-development materials and activities in appropriate official regional languages;
 - (b) To undertake capacity-building activities in official local languages, as appropriate;
- 4. Requests the Secretariat in collaboration with other international organizations to explore additional ways of facilitating North-South, South-South and triangular cooperation in its technical assistance plan referred to in paragraph 2 above;
- 5. Emphasizes the role of the regional centres, as set out in the provisions of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal and the Stockholm Convention on Persistent Organic Pollutants, as well as the regional, subregional and country offices of the Food and Agriculture Organization of the United Nations, the United Nations Environment Programme and other participating organizations of the Inter-Organization Programme for the Sound Management of Chemicals, in delivering, upon request, technical assistance at the regional level for the implementation of the Basel, Rotterdam and Stockholm conventions and in facilitating technology transfer to eligible Parties;
- 6. Welcomes the United Nations Environment Assembly resolution highlighting the role of the regional centres of the Basel and Stockholm conventions in assisting the regions in the implementation of the two conventions and in other relevant work relating to the multilateral environmental agreements in the chemicals and waste cluster in the countries they serve;⁴⁸
- 7. *Requests* the Secretariat to prepare a report for consideration by the Conference of the Parties at its next meeting on the implementation of the technical assistance plan for the period 2018–2021, including, as appropriate, adjustments to the plan;

⁴⁶ UNEP/CHW.13/INF/43-UNEP/FAO/RC/COP.8/INF/29-UNEP/POPS/COP.8/INF/46.

⁴⁷ UNEP/CHW.13/INF/36-UNEP/FAO/RC/COP.8/INF/26-UNEP/POPS/COP.8/INF/25.

⁴⁸ See United Nations Environment Assembly resolution 2/7 on the sound management of chemicals and waste.

II

Stockholm Convention regional and subregional centres for capacity-building and the transfer of technology

- 8. *Takes note* of:
- (a) The workplans for the period from 1 January 2016 to 31 December 2019⁴⁹ and activity reports for the period from 1 January 2015 to 31 December 2016⁵⁰ submitted by the Stockholm Convention regional and subregional centres;
 - (b) The reports on activities submitted by the regional and subregional centres;⁵¹
- (c) The report on the activities of the Basel Convention regional and coordinating centres and the Stockholm Convention regional and subregional centres;⁵²
- 9. *Requests* the Stockholm Convention regional and subregional centres to submit to the Secretariat for consideration by the Conference of the Parties at its ninth meeting:
- (a) Their workplans for the period from 1 January 2020 to 31 December 2023 by 30 September 2019;
- (b) Their activity reports for the period from 1 January 2017 to 31 December 2018 by 31 December 2018;
- 10. *Requests* the Secretariat to prepare a report on the activities of the Stockholm Convention regional and subregional centres, including on technology transfer, for consideration by the Conference of the Parties at its ninth meeting;
- 11. *Takes note* of the information provided by the Secretariat pertaining to the nomination and endorsement of regional centres;⁵³
- 12. *Encourages* interested regional and subregional centres to work, under the Convention, on the impact of plastic waste, marine plastic litter, microplastics and measures for their prevention and environmentally sound management and requests the Secretariat to reflect any such work in the report prepared pursuant to paragraph 10 above;
- 13. *Invites* Parties, observers and financial institutions in a position to do so to provide financial support to enable Stockholm Convention regional and subregional centres to implement their workplans with the aim of supporting Parties in their efforts to meet their obligations under the Convention;
- 14. *Encourages* Parties, observers and financial institutions to enhance communication with the Stockholm Convention regional and subregional centres;

TTT

Secretariat report

15. *Requests* the Secretariat to report to the Conference of the Parties at its ninth meeting on the implementation of the present decision.

⁴⁹ Available at http://chm.pops.int/Partners/RegionalCentres/Workplans/tabid/482/Default.aspx.

⁵⁰ Available at http://chm.pops.int/Partners/RegionalCentres/ActivitiesReports/tabid/4112/Default.aspx.

⁵¹ See UNEP/CHW.13/INF/29/Rev.1-UNEP/POPS/COP.8/INF/26/Rev.1.

⁵² Ibid

⁵³ See UNEP/POPS/COP.8/16/Rev.1.

SC-8/16: Financial mechanism

The Conference of the Parties,

Recalling Articles 13 and 14 of the Stockholm Convention on Persistent Organic Pollutants,

Recognizing the urgent need for financial resources for developing countries for the implementation of the Stockholm Convention and the considerable gap between that need and the financial resources provided by the principal entity entrusted with the operations of the financial mechanism of the Convention under the current financial arrangements,

Recognizing future discussions with a view to continuing to strengthen the effectiveness of the financial mechanism of the Convention,

- 1. Requests the principal entity entrusted with the financial mechanism of the Stockholm Convention on Persistent Organic Pollutants, taking into account the specific deadlines set forth in the Convention, to consider in its programming of areas of work for the period 2018–2022 the following priority areas:
- (a) Development and deployment of products, methods and strategies as alternatives to persistent organic pollutants;
- (b) Restriction of DDT production and use to disease vector control in accordance with World Health Organization recommendations and guidelines on the use of DDT in cases where locally safe, effective and affordable alternatives are not available to a Party to the Stockholm Convention;
 - (c) Elimination of the use of polychlorinated biphenyls (PCBs) in equipment by 2025;
- (d) Environmentally sound waste management of liquids containing PCBs and equipment contaminated with PCBs having a PCB content above 0.005 per cent, in accordance with paragraph 1 of Article 6 and part II of Annex A to the Convention, as soon as possible and no later than 2028;
- (e) Introduction and use of best available techniques and best environmental practices to minimize and ultimately eliminate releases of unintentionally produced persistent organic pollutants;
- (f) Development and strengthening of national legislation and regulations for meeting obligations with regard to persistent organic pollutants listed in the annexes to the Convention;
- (g) Review and updating of national implementation plans, including as appropriate their initial development;
- 2. Encourages the Global Environment Facility to continue to support the focal area of chemicals and waste and if appropriate its work on integrated programming as a means of harnessing opportunities for synergy in implementing the Stockholm Convention and contributing to the global efforts to attain the chemicals-and-waste-related Sustainable Development Goals with adequate and sustainable financial resources, taking into account the national priorities of developing countries;
- 3. Requests the Global Environment Facility to consider improving its access modalities, including enabling the participation of a number of additional agencies from developing countries;
- 4. *Encourages* the Global Environment Facility and its partners to support recipient countries in their efforts to identify and mobilize co-financing for its projects related to the implementation of the Stockholm Convention, including through public-private partnerships, as well as applying co-financing arrangements in ways that improve access and do not create barriers or increase costs for recipient countries seeking access to Global Environment Facility funds;
- 5. *Takes note* of the projected shortfall of resources from the sixth replenishment of the Global Environment Facility due to exchange rate movements and the decision of the Council of the Global Environment Facility on item 6 of the agenda for its fifty-first meeting;
- 6. Notes the crucial role of the Global Environment Facility in the mobilization of resources at the domestic level and in support of the effective implementation of the Stockholm Convention and requests the Global Environment Facility to continue its efforts to minimize the potential consequences of the projected shortfall referred to in paragraph 5 above for its support to developing countries aiming to fulfil the relevant programming directions of the sixth replenishment of the Global Environment Facility and with a view to maintaining the level of support to Global Environment Facility recipient countries;

- 7. Requests the Global Environment Facility to consider exploring measures to mitigate possible risks, including currency risks, in order to avoid potential negative impacts on future replenishment periods for the provision of financial resources for all Global Environment Facility recipient countries, taking fully into account the obligations under the Stockholm Convention;
- 8. *Requests* the Global Environment Facility, as appropriate, to ensure that its policies and procedures related to the consideration and review of funding proposals be duly followed in an efficient and transparent manner;
- 9. Takes note of the following non-exhaustive list of elements of guidance from the Stockholm Convention to the Facility that also address relevant priorities of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal and the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade:
- (a) Environmentally sound management of waste consisting of, containing or contaminated with persistent organic pollutants;
- (b) Minimization of waste with a view to reducing or eliminating releases from unintentionally produced persistent organic pollutants;
- (c) Development or strengthening of national legal and regulatory frameworks for meeting obligations regarding persistent organic pollutants listed under the Rotterdam and Stockholm conventions as well as persistent organic pollutant wastes as covered by the Basel Convention;
 - 10. *Requests* the Secretariat:
- (a) To prepare, on the basis of the document developed by the Secretariat pursuant to paragraph 7 (a) of decision SC-6/20,⁵⁴ a complete set of guidance to the financial mechanism of the Convention by consolidating the guidance set out in decision SC-7/21 and paragraphs 1–8 of the present decision;
 - (b) To make the complete set of guidance available on the Convention website;
- (c) To update the complete set of guidance after the tenth meeting of the Conference of the Parties;
- 11. *Welcomes* the report of the Global Environment Facility to the Conference of the Parties to the Stockholm Convention;⁵⁵
 - 12. Welcomes the report on the fourth review of the financial mechanism;⁵⁶
- 13. Requests the Secretariat to prepare, on the basis of the terms of reference for the fourth review of the financial mechanism set out in the annex to decision SC-7/20, draft terms of reference for the fifth review of the financial mechanism for consideration and possible adoption by the Conference of the Parties at its ninth meeting;
- 14. *Takes note* of the report by the Secretariat on the assessment of funding needs of Parties that are developing countries or countries with economies in transition to implement the provisions of the Convention over the period 2018–2022;⁵⁷
- 15. Requests the Global Environment Facility, during the negotiations on the seventh replenishment of the Global Environment Facility Trust Fund, to consider the needs assessment report referred to in paragraph 14 above and the non-exhaustive list referred to in paragraph 9 above;
- 16. *Takes note* of the low level of responses to the online questionnaire, prepared by the Secretariat in response to paragraph 6 of decision SC-7/18, directed to developed county Parties, other Parties and other sources, including relevant funding institutions and the private sector, asking them to provide further information about how they could provide support for the implementation of the Stockholm Convention;
- 17. *Urges* developed country Parties, in accordance with paragraphs 2 and 3 of Article 13 of the Convention, to provide the Secretariat, by 30 September 2018, with information on ways in which they can provide support, including new and additional financial resources, for the implementation of

 $^{^{54}}$ Available at http://chm.pops.int/Portals/0/download.aspx?d=UNEP-POPS-FM-GUID-Guidance-04062013.En.pdf.

⁵⁵ UNEP/POPS/COP.8/INF/28; UNEP/POPS/COP.8/18, annex I.

⁵⁶ UNEP/POPS/COP.8/INF/30; UNEP/POPS/COP.8/18, annex II.

⁵⁷ UNEP/POPS/COP.8/INF/32.

the Stockholm Convention in relation to specific key areas identified in the needs assessment report referred to in paragraph 14 above, including information on access to such support;

- 18. *Invites* other Parties, in accordance with paragraphs 2 and 3 of Article 13 of the Convention, to provide the Secretariat, by 30 September 2018, with information on ways in which they can provide support, including financial resources, in accordance with their capabilities, for the implementation of the Stockholm Convention in relation to specific key areas identified in the needs assessment report referred to in paragraph 14 above, including information on access to such support;
- 19. *Invites* other sources, including relevant funding institutions and the private sector, in accordance with paragraph 2 of Article 13 of the Convention, to provide the Secretariat, by 30 September 2018, with information on ways in which they can contribute to the implementation of the Stockholm Convention in relation to specific key areas identified in the needs assessment report referred to in paragraph 14 above, including information on access to such contributions;
- 20. Requests the Secretariat to prepare, on the basis of the information provided pursuant to paragraphs 17–19 above, a report on the availability of financial resources additional to those provided through the Global Environment Facility and ways and means of mobilizing and channelling such additional resources in support of the objectives of the Convention, for consideration by the Conference of the Parties at its ninth meeting;
- 21. Also requests the Secretariat to prepare draft terms of reference for the assessment of funding needs for Parties that are developing countries or countries with economies in transition to implement the Stockholm Convention over the period 2022–2026, on the basis of the terms of reference set forth in the annex to decision SC-7/18 and taking into consideration the observations and recommendations made by Parties in their assessment of the needs assessment report referred to in paragraph 14 above and the methodology used in preparing it for consideration and possible adoption at the ninth meeting of the Conference of the Parties;
- 22. Further requests the Secretariat to transmit to the Global Environment Facility for its consideration the consolidated guidance referred to in paragraph 10 above, the report on the fourth review of the financial mechanism referred to in paragraph 12 above and the report on the assessment of funding needs over the period 2018–2022 referred to in paragraph 14 above and invites the Global Environment Facility to indicate, in its next regular report to the Conference of the Parties, how the above guidance and reports have been reflected in the outcomes of the negotiations on the seventh replenishment of the Facility;
- 23. Welcomes the ongoing collaboration between the secretariats of the Global Environment Facility and the Stockholm Convention and encourages the two secretariats to further enhance effective inter-secretariat cooperation in accordance with the memorandum of understanding between the Conference of the Parties to the Stockholm Convention and the Council of the Global Environment Facility;
- 24. Requests the Secretariat, in consultation with the secretariat of the Global Environment Facility, to prepare a report on the implementation of the memorandum of understanding between the Conference of the Parties and the Council of the Global Environment Facility with regard to cooperation between the secretariats and reciprocal representation, including follow-up actions, for consideration by the Conference of the Parties at its ninth meeting.

SC-8/17: Reporting pursuant to Article 15 of the Stockholm Convention

The Conference of the Parties,

Noting the priority areas for action recognized in decision SC-8/18 on effectiveness evaluation as they relate to Article 15 on reporting,

- 1. *Takes note* of the progress made by the Secretariat in further improving the electronic reporting system;
- 2. *Encourages* Parties to use the electronic reporting system when submitting their fourth national reports pursuant to Article 15 of the Convention, which, in accordance with decision SC-7/23, are to be submitted to the Secretariat by 31 August 2018 for consideration by the Conference of the Parties at its ninth meeting;
- 3. Also encourages Parties to step up their efforts to collect quantitative data on chemicals listed in the annexes to the Convention, to make use of the existing guidance documents on preparing inventories of chemicals listed in the Convention and to report the data collected in their fourth national reports;
- 4. *Urges* Parties to submit national reports, complete and on time, in order to facilitate the evaluation of the effectiveness of the Convention pursuant to Article 16 and other processes that rely on national reporting data;
- 5. *Takes note* of the users' manual for the electronic reporting system available on the Convention website;⁵⁸
- 6. *Takes note* of the revised strategy⁵⁹ to increase the rate of submission of national reports by Parties pursuant to Article 15 and invites Parties and requests the Secretariat to implement, where appropriate, the recommendations contained therein;
- 7. Decides to establish a small intersessional working group, operating by electronic means, to develop a manual for completing the updated format for national reporting under Article 15, aimed at clarifying what is sought in each question and table of the format;
- 8. *Invites* Parties to nominate experts to participate in the small intersessional working group and to inform the Secretariat of their nominations by 31 July 2017;
- 9. *Also invites* Parties to consider serving as lead country for the development of the manual referred to in paragraph 7 above and to inform the Secretariat of their willingness to do so by 31 July 2017;
 - 10. *Requests* the Secretariat to support the work of the small intersessional working group;
- 11. *Requests* the lead country or, if no lead country is identified, the Secretariat, in consultation with the small intersessional working group, and subject to the availability of resources, to develop the manual referred to in paragraph 7 above;
 - 12. *Requests* the Secretariat, subject to the availability of resources:
- (a) To update the electronic reporting system to include chemicals listed in Annexes A, B and/or C to the Convention by decisions SC-8/10, SC-8/11 and SC-8/12, for consideration by the Conference of the Parties at its ninth meeting;
- (b) To further improve the electronic reporting system in time for it to be used for the submission of the fourth report pursuant to Article 15;
- (c) To provide feedback to Parties regarding the submission of their national reports, with a view to improving the quality of the reported data and information;
- (d) To continue to undertake capacity-building and training activities to support Parties, in particular developing country Parties and Parties with economies in transition, in submitting their national reports pursuant to Article 15, in cooperation with the Stockholm Convention regional centres or other partners.

⁵⁸ http://chm.pops.int/Countries/Reporting/Guidance/tabid/3670/Default.aspx.

⁵⁹ UNEP/POPS/COP.8/INF/37.

SC-8/18: Effectiveness evaluation of the Stockholm Convention

The Conference of the Parties,

Mindful of the purpose of the effectiveness evaluation, namely, to assess whether the Convention has succeeded in achieving its objective of protecting human health and the environment from persistent organic pollutants,

Recognizing that conclusions and recommendations by the effectiveness evaluation committee as to the effectiveness of specific measures of the Convention to achieve its objective have an impact on all elements of the Convention and are useful in informing the relevant processes and mechanisms under the Convention,

Mindful that the priority areas for action identified by the effectiveness evaluation committee, as recognized in paragraphs 3 and 5 (a)–(l) below, as well as all other recommendations of the committee, are addressed by the decisions adopted by the Conference of the Parties at its eighth meeting,

- 1. Welcomes the report on the effectiveness evaluation of the Stockholm Convention on Persistent Organic Pollutants pursuant to Article 16,⁶⁰ including the conclusions and recommendations of the effectiveness evaluation committee,⁶¹ and the report on the framework for effectiveness evaluation:⁶²
- 2. Acknowledges that, as confirmed by the effectiveness evaluation committee in its evaluation, the Convention provides an effective and dynamic framework for addressing the production, use, release, import, export and disposal of persistent organic pollutants globally, but that inadequate implementation is the key issue identified in the evaluation;
- 3. *Notes* that the mechanisms and processes required by the Convention to support Parties in meeting their obligations have all been put in place, except for procedures and mechanisms on compliance pursuant to Article 17;
- 4. *Encourages* Parties to step up their efforts to achieve full implementation of the Convention and, to that end, to give priority to developing or strengthening and enforcing national legislation and regulations implementing the Convention that are appropriate for both industrial chemicals and pesticides;
- 5. *Takes note* of the following priority areas for action to address implementation challenges identified by the effectiveness evaluation committee:
- (a) Sustained and long-term implementation of the global monitoring plan for effectiveness evaluation and continued support for research, monitoring, risk evaluation, data sharing and modelling;
- (b) Enhanced efforts by Parties to update their national implementation plans, including national inventories, and the development or revision of regulatory frameworks and national legislation with a view to specifically addressing their obligations in respect of the chemicals listed under the Convention;
- (c) Urgent implementation of legal and administrative measures to meet the obligations under the Stockholm Convention related to 2025 and 2028 for the elimination and environmentally sound management of polychlorinated biphenyls throughout their life cycles;
- (d) Promotion of sustainable integrated vector management in order to reduce the use of DDT while supporting the strengthening of the capacity of Parties still relying on DDT to commence a sustainable transition away from DDT;
- (e) Identification, collection and provision through the appropriate reporting mechanisms of quantitative information on articles containing brominated diphenyl ethers and on perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride and the introduction of safer and affordable alternatives where applicable;
- (f) Development and updating of source inventories and release estimates under Article 5 of the Convention and provision of relevant information as part of national reports under Article 15 while ensuring quality control, consistency and comparability in respect of data reported over time;

⁶⁰ UNEP/POPS/COP.8/INF/40.

⁶¹ UNEP/POPS/COP.8/22/Add.1.

⁶² UNEP/POPS/COP.8/INF/41.

- (g) Acceleration of efforts to ensure the sound management of stockpiles and wastes in accordance with paragraph 1 of Article 6 of the Convention and prioritization of their sound disposal;
- (h) Registering for needed specific exemptions by States upon becoming Parties to the Convention or on becoming bound by its amendments;
- (i) Adequate and timely submission of the information specified in Annex E and Annex F to the Convention in response to requests for input from the Persistent Organic Pollutants Review Committee;
- (j) Timely and accurate completion of national reports under Article 15 of the Convention;
- (k) Strengthening of technical assistance activities for the priority areas identified by the effectiveness evaluation committee;⁶³
- (l) Sustainable financing to continue to support and enhance the implementation of the Convention in the long term;
- 6. *Notes* that the framework for effectiveness evaluation provided a good basis for conducting the first evaluation cycle and requests the Secretariat to revise the framework in the light of the report of the effectiveness evaluation committee⁶⁴ for consideration by the Conference of the Parties at its ninth meeting.

⁶³ UNEP/POPS/COP8/22/Add.1.

⁶⁴ UNEP/POPS/COP.8/INF/41.

SC-8/19: Global monitoring plan for effectiveness evaluation

The Conference of the Parties,

Noting the priority areas for action recognized in decision SC-8/18 on effectiveness evaluation as they relate to the global monitoring plan,

- 1. Takes note of the report on the meetings of the global coordination group;65
- 2. Welcomes the second global monitoring report⁶⁶ and the conclusions and recommendations of the global coordination group in the executive summary of that report;⁶⁷
- 3. *Adopts* the revised terms of reference and mandate of the regional organization groups and the global coordination group set out in the annex to the present decision;
- 4. *Requests* the regional organization groups and the global coordination group to continue to implement the global monitoring plan according to the revised terms of reference and mandate referred to in paragraph 3 above, taking into account the conclusions and recommendations referred to in paragraph 2 above;
 - 5. *Requests* the Secretariat, subject to the availability of resources:
- (a) To continue to support the work of the regional organization groups and the global coordination group in the implementation of the third phase of the global monitoring plan;
- (b) To continue to support training and capacity-building activities to assist Parties, in particular developing country Parties and Parties with economies in transition, in implementing the global monitoring plan for subsequent effectiveness evaluations and to work with partners and other relevant organizations to undertake implementation activities;
- 6. *Encourages* Parties to consider the conclusions and recommendations referred to in paragraph 2 above and to engage actively in the implementation of the global monitoring plan and the effectiveness evaluation, in particular:
- (a) To continue to monitor the core media of air and human breast milk or human blood and, for those Parties in a position to do so, to initiate monitoring of perfluorooctane sulfonate in surface water in support of future evaluations, and to share the resulting monitoring data through their respective regional organization groups;
- (b) To support the further development and long-term implementation of the global monitoring plan if in a position to do so.

Annex to decision SC-8/19

Revised terms of reference and mandate of the regional organization groups and the global coordination group referred to in the annex to decision SC-4/31

A. Regional organization groups

1. Regional organization groups were established in the five United Nations regions by decision SC-3/19. The main objective of the regional organization groups is to define and implement the strategy for regional information gathering, including facilitating capacity-enhancement activities, and to produce the regional monitoring reports.

1. Membership

- 2. The terms of membership are as follows:
- (a) Members are appointed for a minimum six-year period beginning after the Conference of the Parties has considered the report of an evaluation and ending after the results of the following evaluation are considered by the Conference;
 - (b) To maintain continuity, members may renew their terms for subsequent evaluations;

⁶⁵ See UNEP/POPS/COP.8/INF/39.

⁶⁶ UNEP/POPS/COP.8/INF/38.

⁶⁷ UNEP/POPS/COP.8/21/Add.1.

(c) If a member steps down, Parties from the region in question should nominate a new member with expertise in monitoring and data evaluation, submitting the nomination to the-Secretariat through the Bureau members from their region.

2. Tasks

- 3. The tasks of each regional organization group will be guided by the recommendations put forward in the report of the co-chairs of the coordination group⁶⁸ and will include, among other things:
- (a) Coordinating and overseeing the implementation of the regional monitoring plan, taking into account the work already achieved;
 - (b) Identifying where existing suitable monitoring data are and are not available;
- (c) Promoting and updating as necessary the regional strategy for implementation of the global monitoring plan;
- (d) Promoting and helping to maintain regional, subregional and interregional monitoring networks and extending them as necessary to improve geographic coverage;
 - (e) Coordinating with Parties involved in sampling and analytical arrangements;
- (f) Ensuring compliance with protocols for quality assurance and quality control, noting the examples described in the guidance on the global monitoring plan for persistent organic pollutants for sample collection and analytical methodologies, for data archiving and accessibility and for trend analysis methodologies to ensure quality and allow comparability of data;
- (g) Ensuring and improving internal consistency of the methods and comparability of the data within a particular programme over time;
- (h) Maintaining the interaction with other regional organization groups and the Secretariat, as appropriate;
 - (i) Identifying further capacity-enhancement needs in its region;
- (j) Assisting, for the purpose of filling gaps, in the preparation of project proposals, including through strategic partnerships;
- (k) Preparing a summary of experiences in implementing the duties assigned in subparagraphs (h) and (j) above for transmission to the coordination group via the Secretariat;
 - (1) Preparing regional reports including, where appropriate, information from Antarctica;
- (m) Encouraging transparency of communication and information dissemination within and between regions, noting the need for stakeholder involvement;
- (n) Nominating for each evaluation cycle three of its members to serve in the global coordination group.

B. Global coordination group

- 4. The main objective of the global coordination group is to assist the Secretariat in coordinating and overseeing the implementation of the global monitoring plan and to produce the global monitoring report.
- 5. The global coordination group will comprise three members from each region, nominated by the respective regional organization groups, and will meet at least twice during the evaluation period to perform the following tasks:
- (a) Assisting the Secretariat in coordinating and overseeing the implementation of the global monitoring plan, taking into account the work already undertaken;
 - (b) Assessing regional work with the aim of achieving consistency between regions;
- (c) Identifying impediments to the implementation of the global monitoring plan and actions to tackle them;
- (d) Updating the guidance on the global monitoring plan for persistent organic pollutants in the light of the listing of new chemicals in the annexes to the Convention, with the assistance of invited experts, as necessary;

⁶⁸ UNEP/POPS/COP.4/31, annex.

- (e) Establishing a coordinated cross-regional approach to analysing and assessing data on regional and global environmental transport, considering current international efforts; ⁶⁹
 - (f) Nominating one of its members to serve on the effectiveness evaluation committee;
 - (g) Promoting:
 - (i) Experience-sharing within and between regions;
 - (ii) Capacity-enhancement to fill gaps in coverage for the core media where possible;
 - (iii) Comparability between air monitoring programmes in support of modelling and assessment of the global long-range transport of persistent organic pollutants;
 - (iv) Awareness of the results of the global monitoring plan;
- (h) Reporting on the results of the global monitoring plan by means of a global monitoring report, 70 including:
 - (i) Compilation of the results from the regional monitoring reports;
 - (ii) Evaluation and assessment of changes in persistent organic pollutant levels over time;
 - (iii) Assessment of long-range transport and the effect of variable climate and meteorology on observed trends for persistent organic pollutants;
- (i) Evaluating the global monitoring plan and developing recommendations for consideration by the Conference of the Parties at the end of each evaluation phase and reporting on the following matters:
 - (i) Role, membership and activities of the regional organization groups and the global coordination group in support of subsequent effectiveness evaluations;
 - (ii) Media;
 - (iii) Need for further updating of the global monitoring plan, the implementation plan and the guidance on the global monitoring plan for persistent organic pollutants as the Convention itself evolves;
 - (iv) Need for further capacity enhancement of Parties on a regional basis;
 - (v) Any other issues relevant for the implementation of further evaluations.

C. Schedule

- 6. Monitoring data gathered through the global monitoring plan are compiled and analysed every six years in the regional monitoring reports and the global monitoring report. The global monitoring report is developed on the basis of the regional monitoring reports and constitutes one of the major sources of information for the effectiveness evaluation under Article 16 of the Stockholm Convention.
- 7. While activities under the global monitoring plan are ongoing throughout the six-year evaluation cycles, effectiveness evaluations are conducted during the last two years of the evaluation cycles.
- 8. The global monitoring report is made available to the effectiveness evaluation committee by 31 January of the year preceding the meeting of the Conference of the Parties at which the effectiveness evaluation is to be completed. It is submitted for consideration by the Conference of the Parties two years after the submission of the regional reports, at the same meeting at which the Conference of the Parties is to consider the effectiveness evaluation report.

⁶⁹ For example, the Task Force on Hemispheric Transport of Air Pollution of the Economic Commission for Europe Convention on Long-range Transboundary Air Pollution or any other body studying global transport of persistent organic pollutants.

⁷⁰ UNEP/POPS/COP.4/31, annex.

SC-8/20: International cooperation and coordination

The Conference of the Parties

- 1. Takes note of the report by the Secretariat on international cooperation and coordination;⁷¹ the note by the Secretariat on integrating chemicals and waste management into the 2030 Agenda for Sustainable Development and the Sustainable Development Goals;⁷² and the information provided by the secretariat of the Strategic Approach to International Chemicals Management on the Strategic Approach and the sound management of chemicals and wastes beyond 2020;⁷³
- 2. Welcomes the 2030 Agenda for Sustainable Development, which includes the sound management of chemicals and wastes as an essential and integral cross-cutting element of sustainable development;
- 3. *Emphasizes* the important contributions of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants to supporting the Parties to those conventions in implementing the 2030 Agenda for Sustainable Development and the achievement of the relevant Sustainable Development Goals and associated targets;
- 4. Takes note of the methodology for the collection of data relevant to the indicators of the Sustainable Development Goals and requests the Secretariat to continue to cooperate with the United Nations Environment Programme and the secretariats of other chemicals and wastes-related multilateral environmental agreements to ensure a coordinated approach to the implementation of the methodology;
- 5. Requests the Secretariat to make available to the United Nations Environment Programme information relevant to the implementation of the 2030 Agenda for Sustainable Development submitted to it by Parties, as a contribution to the overall follow-up and review by the High-level Political Forum on Sustainable Development;
- 6. Also requests the Secretariat to continue to cooperate with the United Nations Environment Programme, the United Nations Statistics Division and other relevant organizations in the development of methodologies for indicators relevant to the Basel, Rotterdam and Stockholm conventions;⁷⁴
- 7. Further requests the Secretariat, subject to the availability of resources, to assist Parties, upon request, in their efforts to integrate relevant elements of the conventions into their national plans and strategies for sustainable development, and, as appropriate, legislation;
- 8. Welcomes the adoption of relevant resolutions by the United Nations Environment Assembly at its second session, invites the Executive Director of the United Nations Environment Programme to take into account the work of the conventions in the implementation of those resolutions, and requests the Executive Secretary of the Basel, Rotterdam and Stockholm conventions to cooperate with the Executive Director of the United Nations Environment Programme in the implementation of those resolutions;
- 9. Welcomes the resolutions adopted at the fourth session of the International Conference on Chemicals Management, including in particular the endorsement of the overall orientation and guidance for achieving the 2020 goal, and the resolution to launch an intersessional process on the sound management of chemicals and waste beyond 2020, and requests the Secretariat to continue to cooperate with the secretariat of the Strategic Approach in this respect and to participate in and provide relevant input to the Strategic Approach intersessional process on the sound management of chemicals and waste beyond 2020;

⁷¹ UNEP/CHW.13/INF/38-UNEP/FAO/RC/COP.8/INF/27-UNEP/POPS/COP.8/INF/44.

⁷² UNEP/CHW.13/INF/39-UNEP/FAO/RC/COP.8/INF/28-UNEP/POPS/COP.8/INF/45.

⁷³ UNEP/CHW.13/INF/54-UNEP/FAO/RC/COP.8/INF/42-UNEP/POPS/COP.8/INF/58.

⁷⁴ In accordance with the decisions of the United Nations Statistical Commission.

- 10. Requests the Secretariat to continue to enhance cooperation and coordination with the interim secretariat of the Minamata Convention on Mercury and the secretariat of the Strategic Approach in areas of relevance to the Basel, Rotterdam and Stockholm conventions, as well as with the international organizations and the activities listed in the report by the Secretariat on international cooperation and coordination;⁷⁵
- 11. *Also* requests the Secretariat to report on the implementation of the present decision to the Conference of the Parties at its next meeting.

⁷⁵ UNEP/CHW.13/INF/38-UNEP/FAO/RC/COP.8/INF/27-UNEP/POPS/COP.8/INF/44.

SC-8/21: Enhancing cooperation and coordination among the Basel, Rotterdam and Stockholm conventions

The Conference of the Parties,

Mindful of the legal autonomy of, respectively, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants,

Reaffirming that actions taken to enhance coordination and cooperation should be aimed at strengthening the implementation of the three conventions at the national, regional and global levels, promoting coherent policy guidance and enhancing efficiency in the provision of support to Parties with a view to reducing their administrative burden and maximizing the effective and efficient use of resources at all levels, taking into account national-level activities, circumstances and priorities, as appropriate,

Mindful that several of the follow-up actions to the recommendations presented in the reports on the reviews called for in decisions BC-12/20, RC-7/10 and SC-7/28⁷⁶ are addressed in decisions adopted by the conferences of the Parties at their 2017 meetings,

- 1. Welcomes the report on the further review of the synergies arrangements;⁷⁷
- 2. Also welcomes the report on the review of the matrix-based management approach and organization⁷⁸ undertaken by the Executive Director in consultation with the Director General of the Food and Agriculture Organization of the United Nations;
- 3. Further welcomes the report on the review of the proposals to enhance synergies arrangements set out in the note by the Secretariat on the organization and operation of the part of the Rotterdam Convention Secretariat hosted by the Food and Agriculture Organization of the United Nations;⁷⁹
- 4. Requests the Secretariat to continue to seek opportunities for enhanced coordination and cooperation among the Basel, Rotterdam and Stockholm conventions in order to ensure policy coherence and enhance efficiency with a view to reducing the administrative burden and maximizing the effective and efficient use of resources at all levels;
- 5. *Invites* Parties to submit to the Secretariat, by 30 June 2018, suggestions for possible further action to enhance cooperation and coordination among the Basel, Rotterdam and Stockholm conventions and requests the Secretariat to inform the Conference of the Parties about the specific suggestions received in the documents to be considered under each relevant agenda item for its next meeting;
- 6. *Requests* the Secretariat to include information on progress achieved in enhancing cooperation and coordination in its reports on the implementation of relevant decisions.

⁷⁶ UNEP/CHW.13/22/Add.1-UNEP/FAO/RC/COP.8/21/Add.1-UNEP/POPS/COP.8/25/Add.1.

 $^{^{77}\} UNEP/CHW.13/INF/43-UNEP/FAO/RC/COP.8/INF/29-UNEP/POPS/COP.8/INF/46,\ annex.$

⁷⁸ UNEP/CHW.13/INF/44-UNEP/FAO/RC/COP.8/INF/30-UNEP/POPS/COP.8/INF/47, annex.

⁷⁹ UNEP/CHW.13/INF/45-UNEP/FAO/RC/COP.8/INF/31-UNEP/POPS/COP.8/INF/48, annex.

SC-8/22: Clearing-house mechanism for information exchange

The Conference of the Parties,

Noting the priority areas for action recognized in decision SC-8/18 on effectiveness evaluation as they relate to Article 9 of the Stockholm Convention on Persistent Organic Pollutants, on information exchange,

- 1. Welcomes the progress made in the implementation of the joint clearing-house mechanism;
- 2. Welcomes the work of the Secretariat in revising the draft joint clearing-house mechanism strategy⁸⁰ and in preparing a draft workplan for the implementation of the joint clearing-house mechanism for the biennium 2018–2019;⁸¹
 - 3. *Requests* the Secretariat, subject to the availability of resources:
- (a) To start the work to implement the strategy of the joint clearing-house mechanism⁸² in a gradual and cost-effective manner;
- (b) To implement the activities of the workplan for the biennium 2018–2019 in accordance with the programme of work and budget for the Convention for the biennium;
 - 4. *Also* requests the Secretariat:
- (a) To ensure that activities undertaken in the development of the clearing-house mechanism are cost-effective, proportionate and balanced and in line with the capacity and resources of the Secretariat;
 - (b) To prioritize recurring activities, in particular in respect of maintenance;
- (c) To implement activities in-house whenever possible and to resort to the use of consultants only in justifiable cases;
- (d) To link with other relevant existing mechanisms and sources of information without having to redo the content already contained in them;
- (e) Where possible, to participate in meetings through electronic means and to use translations already available in the six official United Nations languages;
- 5. Further requests the Secretariat to continue to enhance cooperation and coordination activities with existing partners in the area of information exchange, to explore possible cooperative activities with new partners as appropriate and to ensure complementarity and avoid duplication with existing and future activities, tools and mechanisms;
- 6. *Invites* Parties and others to participate, as appropriate, in the development of the strategy and in relevant activities of the workplan in accordance with the present decision;
- 7. Requests the Secretariat to keep the strategy under regular review in order to take into account lessons learned and relevant developments with regard to matters such as the multi-sectoral and multi-stakeholder discussions on the sound management of chemicals and waste beyond 2020.

⁸⁰ UNEP/CHW.13/INF/47-UNEP/FAO/RC/COP.8/INF/33-UNEP/POPS/COP.8/INF/50.

⁸¹ UNEP/CHW.13/INF/48-UNEP/FAO/RC/COP.8/INF/39-UNEP/POPS/COP.8/INF/43.

⁸² UNEP/CHW.13/INF/47-UNEP/FAO/RC/COP.8/INF/33-UNEP/POPS/COP.8/INF/50.

SC-8/23: Mainstreaming gender

The Conference of the Parties,

Recalling Sustainable Development Goal 5 on gender equality, adopted by the General Assembly on 25 September 2015 in its resolution 70/1, entitled "Transforming our world: the 2030 Agenda for Sustainable Development",

Recalling also United Nations Environment Assembly resolution 2/5 of 27 May 2016, entitled "Delivering on the 2030 Agenda for Sustainable Development", which, among other things, stresses the importance of respecting, protecting and promoting gender equality in delivering the environmental dimension of the 2030 Agenda for Sustainable Development,

- 1. Welcomes the Gender Action Plan of the Secretariat of the Basel, Rotterdam and Stockholm conventions and the report on the implementation of the Gender Action Plan⁸³ and requests the Secretariat to continue its efforts in respect of gender mainstreaming in its activities, projects and programmes;
- 2. Recognizes that, notwithstanding the efforts of Parties and the Secretariat to promote gender equality, efforts are still needed to ensure that women and men from all Parties are equally involved in the implementation of the three conventions and are represented in their bodies and processes and thus inform and participate in decision-making on gender-responsive hazardous chemicals and wastes policies;
 - 3. *Requests* the Secretariat:
- (a) In accordance with decisions BC-12/25, RC-7/15 and SC-7/33, to continue to report on the implementation of the Gender Action Plan to the conferences of the Parties at their meetings in 2019 and at subsequent meetings;
- (b) To update, for consideration by the conferences of the Parties at their next meetings, the Gender Action Plan for mainstreaming gender considerations in the programme of work with indicators for monitoring progress so as to enable the conferences of the Parties to follow up on the plan's implementation.

⁸³ UNEP/CHW.13/INF/46-UNEP/FAO/RC/COP.8/INF/32-UNEP/POPS/COP.8/INF/49, annex.

SC-8/24: Synergies in preventing and combating illegal traffic and trade in hazardous chemicals and wastes

The Conference of the Parties,

Noting the priority areas for action recognized in decision SC-8/18 on effectiveness evaluation as they relate to strengthening legislation and regulations for the implementation and enforcement of the Stockholm Convention on Persistent Organic Pollutants,

Mindful of decision BC-13/10 on national legislation, notifications, enforcement of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal and efforts to combat illegal traffic under the Convention,

- 1. Welcomes the analysis of possible synergies in preventing and combating illegal traffic and trade in hazardous chemicals and wastes, building on lessons learned under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal;⁸⁴
- 2. *Emphasizes* the importance of the effective implementation of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, in particular Articles 11 and 12, for preventing and combating illegal trade in hazardous chemicals;
- 3. *Underlines* the importance of adequate legal and institutional frameworks at the national level in preventing and combating illegal traffic and trade in hazardous chemicals and wastes under the Basel Convention, the Rotterdam Convention and the Stockholm Convention;
- 4. *Emphasizes* the need to ensure complementarity and consistency and to avoid duplication of the work on illegal traffic and trade under the conventions with similar work by the United Nations Environment Programme and other relevant organizations;
- 5. *Urges* Parties to strengthen action under the conventions, including cooperation with other Parties, to combat illegal traffic and trade in hazardous chemicals and wastes;
- 6. *Emphasizes* the importance of the information provided by Parties to the Secretariat under each convention on the measures that they have adopted in order to implement the convention and requests the Secretariat to make the information relevant to illegal traffic and trade, if not identified as confidential by Parties involved, available on the website of the convention, without duplicating related requests under the other conventions;
 - 7. Encourages Parties to two or more of the Basel, Rotterdam and Stockholm conventions:
- (a) To establish, where they do not yet exist, coordinating mechanisms at the national level with a view to facilitating the exchange of information among relevant authorities responsible for the implementation and enforcement of the provisions of the conventions aimed at controlling the export and import of the chemicals and wastes covered under the conventions, other relevant institutions and the private sector;
- (b) To review, through those coordinating mechanisms, the lessons learned under each convention that could benefit the implementation and enforcement of the others and, as appropriate, to adjust their legal and institutional frameworks accordingly;
- 8. *Invites* Parties to share with other Parties, through the Secretariat, while avoiding duplication:
 - (a) Their experiences pursuant to paragraph 7 above;
 - (b) Information on cases of illegal trade in hazardous chemicals and wastes;
- 9. *Invites* the member organizations of the Inter-Organization Programme for the Sound Management of Chemicals, the Basel Convention and Stockholm Convention regional centres, the International Criminal Police Organization, the World Customs Organization, the secretariat of the Montreal Protocol on Substances that Deplete the Ozone Layer and relevant global and regional enforcement networks to provide the Conference of the Parties, through the Secretariat, with information on their activities aimed at preventing and combating illegal traffic and trade in hazardous chemicals and wastes as well as lessons learned from those activities for consideration by the Conference of the Parties at its next meeting;

⁸⁴ UNEP/CHW.13/INF/49-UNEP/FAO/RC/COP.8/INF/34-UNEP/POPS/COP.8/INF/51.

- 10. *Requests* the Secretariat:
- (a) To seek, subject to the availability of resources, comments from Parties and others on further areas, including areas common to two or three of the conventions, in which legal clarity could be improved as a means of preventing and combating illegal traffic and trade in hazardous chemicals and wastes and, based on those comments, to prepare a report, including recommendations, for consideration by the Conference of the Parties at its next meeting;
- (b) To support Parties, upon request and within available resources, on matters pertaining to the implementation and enforcement of the provisions of the Basel, Rotterdam and Stockholm conventions aimed at controlling the export and import of chemicals and wastes covered under the three conventions, including on the development and updating of national legislation or other measures;
- (c) To develop examples of the integration of the provisions of the Basel, Rotterdam and Stockholm conventions into national legal frameworks and to organize training activities, subject to the availability of resources and in collaboration with partners, to assist Parties, particularly developing-country Parties and Parties with economies in transition, in the development of national legislation and other measures to implement and enforce the provisions of the conventions aimed at controlling the export and import of chemicals and wastes covered under the conventions;
- (d) To report on the implementation of the present decision to the Conference of the Parties at its next meeting.

SC-8/25: From science to action

The Conference of the Parties

- 1. Emphasizes that, through its subsidiary bodies, expert groups and other related mechanisms, including with other partners, the necessary processes are in place to ensure science-based work and decision-making under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants and welcomes their work in that regard;
- 2. *Emphasizes* the importance of, and the need to enhance, the interaction between scientists, policymakers and other actors in the policy process to promote the exchange, development and joint construction of knowledge with the aim of achieving more informed decision-making for reaching the objectives of the conventions;
- 3. *Encourages* Parties and other stakeholders to initiate action to promote science-based decision-making and action in the implementation of the conventions at the national level;
- 4. *Takes note* of the Secretariat's draft road map for further engaging Parties and other stakeholders in informed dialogue for enhanced science-based action in the implementation of the conventions;⁸⁵
- 5. Requests the Secretariat, subject to the availability of resources, and in collaboration with regional centres, as appropriate, to undertake capacity-building and training activities to support Parties in science-based decision-making and action in the implementation of the Basel, Rotterdam and Stockholm conventions:
- 6. Welcomes the progress made to date and requests the Secretariat, by 30 September 2017, to further revise the draft road map with a focus on moving from multilateral dialogue to action at the national and regional levels while avoiding duplication and inconsistencies with existing mechanisms and taking into account the views expressed by Parties during the 2017 meetings of the conferences of the Parties to the three conventions;
- 7. *Invites* Parties and others to submit comments on the further revised road map by 28 February 2018;
- 8. *Invites* Parties to the Basel, Rotterdam and Stockholm conventions to nominate through their bureau representatives up to four experts per United Nations region, by 30 June 2017, to assist the Secretariat in further revising the draft road map, working through electronic means, and requests the Secretariat to prepare a final draft, with a focus on enhancing science-based action at the national and regional levels, in particular with regard to section 4.2 and appendix 1 of the current draft road map, ⁸⁶ for consideration by the conferences of the Parties to the three conventions at their next meetings;
- 9. Requests the Secretariat to cooperate and coordinate with the United Nations Environment Programme and other relevant organizations, scientific bodies and stakeholders to strengthen the science-policy interface and to report to the conferences of the Parties at their meetings in 2019 on the implementation of the present decision.

⁸⁵ UNEP/CHW.13/INF/50-UNEP/FAO/RC/COP.8/INF/35-UNEP/POPS/COP.8/INF/52, annex I.

⁸⁶ Ibid.

SC-8/26: Draft memorandum of understanding between the United Nations Environment Programme and the Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants

The Conference of the Parties,

Noting the legal autonomy of the Conference of the Parties and noting that the United Nations Environment Assembly of the United Nations Environment Programme (UNEP) and the conferences of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants have equal decision-making authority within their respective mandates,

- 1. *Recalls* its request in decision SC-7/32 for the preparation by the Secretariat of a draft memorandum of understanding concerning the provision of secretariat functions for the Convention by UNEP and notes with concern that no such draft has been submitted for consideration and possible adoption by the Conference of the Parties in 2017;
- 2. *Reiterates* its request in decision SC-7/32 for the preparation by the Secretariat of a draft memorandum of understanding for consideration and possible adoption at its next meeting;
- 3. Takes note of United Nations Environment Assembly resolution 2/18 on the relationship between UNEP and the multilateral environmental agreements for which it provides the secretariats and of the progress report prepared by the Executive Director of UNEP;⁸⁷
- 4. Requests the Executive Secretary of the Basel, Rotterdam and Stockholm conventions to engage actively in the work of the Executive Director, in consultation with the secretariats of other UNEP-administered multilateral environmental agreements, to develop a flexible draft template of options for the provision of secretariat services in an appropriate form, taking into account the UNEP delegation of authority policy and framework for the management and administration of multilateral environmental agreement secretariats and the draft memorandums of understanding between the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions and the Executive Director;⁸⁸
- 5. *Decides* that if the work of UNEP under paragraph 4 above is not finalized in time for the next meeting of the Conference of the Parties it should not delay consideration of the draft memorandum of understanding;
- 6. *Decides* to include the draft memorandum of understanding as an item on the provisional agenda of the next meeting of the Conference of the Parties, in accordance with rule 10 (b) of the rules of procedure.

SC-8/27: Programme of work and budget for the Stockholm Convention for the biennium 2018–2019

The Conference of the Parties,

Taking note of the financial reports on the Stockholm Convention trust funds for 2016 and estimated expenditures for 2017 from the Trust Fund for the Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention Trust Fund), ⁸⁹

I

Trust Fund for the Stockholm Convention on Persistent Organic Pollutants

1. *Approves* the programme budget for the Stockholm Convention for the biennium 2018–2019 of 11,582,220 United States dollars for the purposes set out in table 1 of the present decision;

⁸⁷ UNEP/CHW.13/INF/56-UNEP/FAO/RC/COP.8/INF/46-UNEP/POPS/COP.8/INF/59.

⁸⁸ UNEP/CHW.12/25, annex; UNEP/FAO/RC/COP.7/19, annex; UNEP/POPS/COP.7/9, annex.

⁸⁹ UNEP/POPS/COP.8/INF/55/Rev.2.

- 2. Authorizes the Executive Secretary of the Stockholm Convention to make commitments in an amount up to the approved operational budget, drawing upon available cash resources:
- 3. Decides to increase the working capital reserve from 13 per cent of the annual average of the biennial operational budgets for 2018–2019 to 15 per cent in accordance with the Office of Internal Oversight Services audit recommendation;⁹⁰
- 4. Welcomes the continued contribution of 4 million Swiss francs by Switzerland to the Secretariat for the biennium to offset planned expenditures and notes that 2 million Swiss francs, equivalent to 2,008,032 United States dollars, 91 will be allocated as a contribution to the Stockholm Convention Trust Fund and will include Switzerland's assessed contribution and that the remainder will be allocated to the Stockholm Convention voluntary Special Trust Fund;
- 5. Adopts the indicative scale of assessments for the apportionment of expenses for the biennium 2018–2019 set out in table 2 of the present decision and authorizes the Executive Secretary, consistent with the Financial Regulations and Rules of the United Nations, to adjust the scale to include all Parties for which the Convention enters into force before 1 January 2018 for 2018 and before 1 January 2019 for 2019;
- 6. Recalls that contributions to the Stockholm Convention Trust Fund are expected by or on 1 January of the year for which those contributions have been budgeted, requests Parties to pay their contributions promptly, encourages Parties in a position to do so to pay their contributions by 16 October 2017 for the calendar year 2018 and by 16 October 2018 for the calendar year 2019 and requests the Secretariat to notify Parties of the amounts of their contributions as early as possible in the year preceding the year in which they are due;
- 7. *Notes with concern* that a number of Parties have not paid their contributions to the Stockholm Convention Trust Fund for 2016 and prior years, contrary to the provisions of paragraph 3 (a) of rule 5 of the financial rules;
- 8. *Urges* Parties to pay their contributions promptly by or on 1 January of the year to which the contributions apply and requests the Secretariat to present at regional meetings information on the state of play⁹² regarding arrears and their consequences;
- 9. Recalls paragraph 10 of decision SC-7/33 and decides to continue the practice that, with regard to contributions due from 1 January 2005 onwards, no representative of any Party whose contributions are in arrears for two or more years shall be eligible to become a member of the Bureau of the Conference of the Parties or a member of any subsidiary body of the Conference of the Parties, provided, however, that this shall not apply to Parties that are least developed countries or small island developing States or to any Party that has agreed on and is respecting a schedule of payments in accordance with the financial rules;
- 10. Also recalls paragraph 11 of decision SC-7/33 and decides to continue the practice that no representative of any Party whose contributions are in arrears for four or more years and that has not agreed on or is not respecting a schedule of payments implemented in accordance with paragraph 3 (d) of rule 5 of the financial rules shall be eligible to receive financial support for attendance at intersessional workshops or other informal meetings, as arrears that have been outstanding for more than four years must be treated as 100 per cent doubtful debts under the International Public Sector Accounting Standards;
- 11. *Takes note* of the efforts of the Executive Secretary and the President of the Conference of the Parties, who through a jointly signed letter invited the ministers of foreign affairs of Parties with contributions in arrears to take timely action to rectify those arrears, requests that this practice continue and thanks those Parties that have responded in a positive manner by paying their outstanding contributions;

⁹⁰ Office of Internal Oversight Services, Internal Audit Division, Report 2014/024, available at https://oios.un.org/page/download/id/120.

⁹¹ The host country contribution of Switzerland to the General Trust Fund of 2,000,000 Swiss francs for 2018–2019 is equivalent to 2,008,032 United States dollars using the United Nations 1 May 2017 operational exchange rate, according to which 1 United States dollar equals 0.996 Swiss francs.

⁹² For the present decision, "state of play" consists of the current status of arrears, difficulties with paying assessed contributions due to restrictions that go beyond national jurisdiction, and the status of any payment plans agreed with the Secretariat.

- 12. Also takes note of the indicative staffing table for the Secretariat for the biennium 2018–2019 used for costing purposes to set the overall budget, which is set out in table 3 of the present decision:
- 13. Authorizes, on an exceptional basis, the Executive Secretary, as a last resort, to draw additional funds, not exceeding 100,000 United States dollars, from the Basel, Rotterdam and Stockholm conventions' three general trust funds' net balances to cover any shortfall from the approved staffing envelope for the biennium 2018–2019 should the annual increase applied to real staff costs and used to determine the staffing envelope not be adequate, provided that the balances are not reduced below the working capital reserve, except in the case of the Stockholm Convention, where the working capital reserve may temporarily be used for this purpose;
- 14. Also authorizes the Executive Secretary to continue to determine the staffing levels, numbers and structure of the Secretariat in a flexible manner, provided that he remains within the overall cost of the staff numbers set out in table 3 of the present decision for the biennium 2018–2019, as recommended by the Office of Internal Oversight Services in its audit report;
- 15. *Invites* the Executive Secretary to continue cooperating on programmatic matters with the interim secretariat to the Minamata Convention and to provide any secretariat support that may be requested and is fully funded by the Conference of the Parties to the Minamata Convention;
- 16. *Requests* the Secretariat to ensure the full utilization of the programme support costs available to it in 2018–2019 and, where possible, to offset those costs against the administrative components of the approved budget;

II

Stockholm Convention voluntary Special Trust Fund

- 17. *Takes note* of the funding estimates included in table 1 of the present decision for activities under the Convention to be financed from the Stockholm Convention voluntary Special Trust Fund in the amount of 4,797,645 United States dollars for the biennium 2018–2019;
- 18. *Notes* that the voluntary Special Trust Fund requirement presented in the budget represents the Secretariat's best efforts to be realistic and reflects priorities agreed upon by all Parties and urges Parties and invites non-Parties and others to make voluntary contributions to the voluntary Special Trust Fund so as to encourage contributions from donors;
- 19. *Invites* Switzerland to include in its contribution to the voluntary Special Trust Fund support for, among other things, the participation of developing country Parties, in particular least developed countries and small island developing States, and Parties with economies in transition in meetings of the Convention and joint activities between the Basel, Rotterdam and Stockholm conventions;
- 20. *Urges* Parties, and invites others in a position to do so, to contribute urgently to the voluntary Special Trust Fund with a view to ensuring the full and effective participation of developing-country Parties, in particular least developed countries and small island developing States, and Parties with economies in transition in the meetings of the Conference of the Parties and its subsidiary bodies;

III

Preparations for the next biennium

- 21. Decides that the two trust funds for the Convention shall be continued until 31 December 2019 and requests the Executive Director of the United Nations Environment Programme to extend them for the biennium 2018–2019, subject to the approval of the United Nations Environment Assembly of the United Nations Environment Programme;
- 22. *Takes note* of the efforts since 2012 to enhance efficiency in the use of financial and human resources in the joint secretariat and encourages the Executive Secretary to continue such efforts in the future work of the Secretariat;
- 23. *Requests* the Executive Secretary to prepare a budget for the biennium 2020–2021 for consideration by the Conference of the Parties at its ninth meeting, explaining the key principles, assumptions and programmatic strategy on which it is based and presenting expenditures for the 2020-2021 period in a programmatic format;
- 24. *Notes* the need to facilitate priority-setting by providing Parties with timely information on the financial consequences of various options and, to that end, requests the Executive

Secretary to include in the proposed operational budget for the biennium 2020–2021 two alternative funding scenarios that take account of any efficiencies identified as a result of paragraph 22 above and are based on:

- (a) The Executive Secretary's assessment of the required changes in the operational budget, which should not exceed a 5 per cent increase over the 2018–2019 level in nominal terms, to finance all proposals before the Conference of the Parties that have budgetary implications;
 - (b) Maintaining the operational budget at the 2018–2019 level in nominal terms;
- 25. *Requests* the Executive Secretary at the ninth ordinary meeting of the Conference of the Parties to provide, where relevant, cost estimates for actions that have budgetary implications that are not foreseen in the draft programme of work but are included in proposed draft decisions before the adoption of those decisions by the Conference of the Parties;
- 26. *Stresses* the need to ensure that the proposal for the 2020–2021 voluntary Special Trust Fund requirement presented in the budget is realistic and represents the agreed priorities of all Parties so as to encourage voluntary contributions from donors;
- 27. *Requests* the Secretariat to identify elements of programmatic cooperation with other organizations of the chemicals and wastes cluster for the programme of work for 2018–2019 in line with decision SC-8/20 on international cooperation and coordination.

 $\begin{tabular}{ll} Table 1 \\ Programme budget, reserves and financing for the 2018-2019 biennium (United States dollars) \\ Programme $Budget$ \\ \end{tabular}$

		Ge	neral trust fu	ınd	Volu	ntary trust I	und
		Basel	Rotterdam	Stockholm	Basel	Rotterdam	Stockholm
1	Fourteenth meeting of the Conference of the Parties to the Basel Convention	557 575			1 014 871		
2	Ninth meeting of the Conference of the Parties to the Rotterdam Convention		557 575			1 014 871	
3	Ninth meeting of the Conference of the Parties to the Stockholm Convention			557 575			1 014 871
4	Eleventh meeting of the Basel Convention Open- ended Working Group	347 982			669 512		
5	Fourteenth and fifteenth meetings of the Rotterdam Convention Chemical Review Committee and orientation workshop for members of the Chemical Review Committee		517 208			89 535	
6	Fourteenth and fifteenth meetings of the Stockholm Convention Persistent Organic Pollutants Review Committee			952 962			111 552
7	Meeting of the Bureau of the Conference of the Parties to the Basel Convention and joint meeting of the bureaux to the Basel, Rotterdam and Stockholm conventions	50 900					
8	Meeting of the Bureau of the Conference of the Parties to the Rotterdam Convention and joint meeting of the bureaux to the Basel, Rotterdam and Stockholm conventions		30 200				
9	Meeting of the Bureau of the Conference of the Parties to the Stockholm Convention and joint meeting of the bureaux to the Basel, Rotterdam and Stockholm conventions			44 000			
10	Thirteenth meeting of the Basel Convention Implementation and Compliance Committee	35 000			30 280		
12	Support for the work of and coordination between the scientific bodies of the conventions				40 000	40 000	40 000
13	Technical assistance and capacity development programme of the Basel, Rotterdam and Stockholm conventions ¹				516 000	636 500	637 500
14	Training and capacity development under the Basel Convention				1 000 000		
15	Training and capacity development under the Rotterdam Convention					1 000 000	
16	Training and capacity development under the Stockholm Convention						1 000 000
18	Partnerships for technical assistance				566 600	278 800	39 600
19	Coordination of and support for the Basel and Stockholm conventions regional centres and cooperation and coordination between regional centres	44 150		44 150	300 000		300 000
20	Scientific support for Parties to the Basel Convention	275 000		20 000	235 000		
21	Scientific support for Parties to the Rotterdam Convention		60 000			130 000	
22	Scientific support for Parties to the Stockholm Convention			135 000			372 000
23	Effectiveness evaluation and the global monitoring plan			60 000			398 000
24	National reporting	42 500		70 000	107 500		20 000

		Ge	neral trust fu	ınd	Volu	ntary trust I	Fund
		Basel	Rotterdam	Stockholm	Basel	Rotterdam	Stockholm
25	Clearing-house mechanism for information exchange, including the prior informed consent database and the Rotterdam Convention website in English, French and Spanish	42 705	92 792	42 703	83 334	83 330	83 336
26	Publications	33 400	33 200	33 400			
27	Joint communication, outreach and public awareness	10 000	10 000	10 000			
28	Executive direction and management	122 300	225 427	204 868			
29	International cooperation and coordination, including partnerships						
30	Financial resources and mechanisms	12 000	12 000	12 000			
32	Legal and policy (specific to the Basel Convention)				402 500		
33	Joint legal and policy activities under the Basel, Rotterdam and Stockholm conventions; national legislation, illegal traffic and trade, and enforcement under the Basel, Rotterdam and Stockholm conventions				20 000		
34	Coordination and provision of support to Parties in follow-up to the country-led initiative on environmentally sound management and further legal clarity				677 500		
35	Office maintenance and services	364 080	212 040	364 080			
36	Joint information technology services	100 000	80 000	100 000			
37	Staff costs	6 488 841	5 460 797	7 599 014	228 845	228 845	228 845
	Total (excluding programme support costs)	8 526 433	7 291 239	10 249 752	5 891 942	3 501 881	4 245 704
	Programme support costs	1 108 436	947 861	1 332 468	765 952	455 244	551 941
	Total (including programme support costs)	9 634 869	8 239 100	11 582 220	6 657 894	3 957 125	4 797 645
	Grand total		29 456 189			15 412 664	

¹ The impact assessment of the implementation of the technical assistance plan shall be funded as a priority using unearmarked contributions to the voluntary Trust Funds of the Conventions

Reserves

	Basel	Rotterdam	Stockholm
2018–2019 approved budget from the general trust fund	9 634 869	8 239 100	11 582 220
Working capital reserve			
Current level	705 363	611 008	748 847
Required level	722 615	617 933	868 666
Approved changes to the working capital reserve	17 252	6 924	119 820
Rotterdam Convention special contingency reserve			
Current level	0	292 540	0
Approved changes to the Rotterdam Convention special contingency reserve	0	0	0
Total required for the approved budget and changes to reserves	9 652 121	8 246 025	11 702 039

Financing

	Basel	Rotterdam	Stockholm
Funded from the trust fund balance	0	0	0
Funded from the Rotterdam Convention special contingency reserve	0	0	0
Funded from the host country contributions of Switzerland ^{1,2}	0	651 466	1 934 389
Funded from the host country contributions of Italy ¹	0	1 302 932	0
Funded from assessed contributions of Parties	9 652 121	6 291 627	9 767 650

¹The host country contribution for the Rotterdam Convention was pledged in Euros and converted to United States dollars using the United Nations operational rate of exchange of 1 Uunited States dollar = 0.921 euros on 1 May 2017.

²The host country contribution for the Stockholm Convention was pledged in Swiss francs and converted into United States dollars using the United Nations operational rate of exchange of 1 United States dollar = 0.996 Swiss francs on 1 May 2017.

 $\label{thm:conventions} \begin{tabular}{ll} Table 2\\ Assessed contributions apportioned to Parties to the Basel, Rotterdam and Stockholm conventions for the 2018–2019 biennium (United States dollars)\\ \end{tabular}$

	United Nations Secret	ariat scale	Ba	sel Conven	tion (BCL)	Rott	erdam Conve	ention (ROL)	Stoc	kholm Conv	vention (SCL)
	Party	United Nations scale		BC adjusted scale, per cent	Average annual contribution for biennium		RC adjusted scale, per cent	Average annual contribution for biennium		SC adjusted scale, per cent	Average <u>annual</u> contribution for biennium
	Remarks	(1)		(2)	(4)		(3)	(4)		(3)	(4)
	-	Per cent	No.	Per cent	United States dollars	No.	Per cent	United States dollars	No.	Per cent	United States dollars
1	Afghanistan	0.006	1	0.008	362	1	0.010	315	1	0.010	488
2	Albania	0.008	2	0.010	483	2	0.010	315	2	0.010	488
3	Algeria	0.161	3	0.201	9 717	_	n.a.	n.a.	3	0.213	10 400
4	Andorra	0.006	4	0.008	362	_	n.a.	n.a.	4	n.a.	n.a.
5	Angola	0.010	5	0.010	483	_	n.a.	n.a.	-	0.010	488
6	Antigua and Barbuda	0.002	6	0.003	121	3	0.010	315	5	0.010	488
7	Argentina	0.892	7	1.115	53 834	4	1.131	35 595	6	1.180	57 623
8	Armenia	0.006	8	0.008	362	5	0.010	315	7	0.010	488
9	Australia	2.337	9	2.923	141 043	6	2.964	93 256	8	3.091	150 969
10	Austria	0.720	10	0.900	43 454	7	0.913	28 731	9	0.952	46 511
11	Azerbaijan	0.060	11	0.075	3 621	_	n.a.	n.a.	10	0.079	3 876
12	Bahamas	0.014	12	0.018	845	_	n.a.	n.a.	11	0.019	904
13	Bahrain	0.044	13	0.055	2 655	8	0.056	1 756	12	0.058	2 842
14	Bangladesh	0.010	14	0.010	483	_	n.a.	n.a.	13	0.010	488
15	Barbados	0.007	15	0.009	422	_	n.a.	n.a.	14	0.010	488
16	Belarus	0.056	16	0.070	3 380	_	n.a.	n.a.	15	0.074	3 618
17	Belgium	0.885	17	1.107	53 412	9	1.123	35 315	16	1.171	57 170
18	Belize	0.001	18	0.001	60	10	0.010	315	17	0.010	488
19	Benin	0.003	19	0.004	181	11	0.010	315	18	0.010	488
20	Bhutan	0.001	20	0.001	60	_	n.a.	n.a.	_	n.a.	n.a.
21	Bolivia (Plurinational State of)	0.012	21	0.015	724	12	0.000	0	19	0.016	775
22	Bosnia and Herzegovina	0.013	22	0.016	785	13	0.016	519	20	0.017	840
23	Botswana	0.014	23	0.018	845	14	0.018	559	21	0.019	904
24	Brazil	3.823	24	4.781	230 726	15	4.849	152 554	22	5.057	246 963
25	Brunei Darussalam	0.029	25	0.036	1 750	-	n.a.	n.a.	-	n.a.	n.a.
26	Bulgaria	0.045	26	0.056	2 716	16	0.057	1 796	23	0.060	2 907
27	Burkina Faso	0.004	27	0.005	241	17	0.010	315	24	0.010	488
28	Burundi	0.001	28	0.001	60	18	0.010	315	25	0.010	488
29	Cabo Verde	0.001	29	0.001	60	19	0.010	315	26	0.010	488
30	Cambodia	0.004	30	0.005	241	20	0.010	315	27	0.010	488
31	Cameroon	0.010	31	0.013	604	21	0.013	399	28	0.013	646
32	Canada	2.921	32	3.653	176 288	22	3.705	116 561	29	3.864	188 695
33	Central African Republic	0.001	33	0.001	60	-	n.a.	n.a.	30	0.010	488
34	Chad	0.005	34	0.006	302	23	0.010	315	31	0.010	488
35	Chile	0.399	35	0.499	24 080	24	0.506	15 922	32	0.528	25 775
36	China	7.921	36	9.906	478 049	25	10.048	316 082	33	10.477	511 691

	United Nations Secret	tariat scale	Ba	sel Conven	tion (BCL)	Rott	erdam Conve	ention (ROL)	Stoc	kholm Conv	vention (SCL)
	Party	United Nations scale		BC adjusted scale, per cent	Average <u>annual</u> contribution for biennium		RC adjusted scale, per cent	Average <u>annual</u> contribution for biennium		SC adjusted scale, per cent	Average <u>annual</u> contribution for biennium
	Remarks	(1)		(2)	(4)		(3)	(4)		(3)	(4)
	-	Per cent	No.	Per cent	United States dollars	No.	Per cent	United States dollars	No.	Per cent	United States dollars
37	Colombia	0.322	37	0.403	19 433	26	0.408	12 849	34	0.426	20 801
38	Comoros	0.001	38	0.001	60	-	n.a.	n.a.	35	0.010	488
39	Congo	0.006	39	0.008	362	27	0.010	315	36	0.010	488
40	Cook Islands	0.001	40	0.001	60	28	0.010	315	37	0.010	488
41	Costa Rica	0.047	41	0.059	2 837	29	0.060	1 876	38	0.062	3 036
42	Côte d'Ivoire	0.009	42	0.011	543	30	0.011	359	39	0.010	488
43	Croatia	0.099	43	0.124	5 975	31	0.126	3 951	40	0.131	6 395
44	Cuba	0.065	44	0.081	3 923	32	0.082	2 594	41	0.086	4 199
45	Cyprus	0.043	45	0.054	2 595	33	0.055	1 716	42	0.057	2 778
46	Czechia	0.344	46	0.430	20 761	34	0.436	13 727	43	0.455	22 222
47	Democratic People's Republic of Korea	0.005	47	0.006	302	35	0.010	315	44	0.010	488
48	Democratic Republic of the Congo	0.008	48	0.010	483	36	0.010	315	45	0.010	488
49	Denmark	0.584	49	0.730	35 246	37	0.741	23 304	46	0.772	37 726
50	Djibouti	0.001	50	0.001	60	38	0.010	315	47	0.010	488
51	Dominica	0.001	51	0.001	60	39	0.010	315	48	0.010	488
52	Dominican Republic	0.046	52	0.058	2 776	40	0.058	1 836	49	0.061	2 972
53	Ecuador	0.067	53	0.084	4 044	41	0.085	2 674	50	0.089	4 328
54	Egypt	0.152	54	0.190	9 174	-	n.a.	n.a.	51	0.201	9 819
55	El Salvador	0.014	55	0.018	845	42	0.018	559	52	0.019	904
56	Equatorial Guinea	0.010	56	0.010	483	43	0.010	315	-	n.a.	n.a.
57	Eritrea	0.001	57	0.001	60	44	0.010	315	53	0.010	488
58	Estonia	0.038	58	0.048	2 293	45	0.048	1 516	54	0.050	2 455
59	Ethiopia	0.010	59	0.010	483	46	0.010	315	55	0.010	488
60	European Union	2.500	60	2.500	120 652	47	2.500	78 645	56	2.500	122 096
61	Fiji	0.003		n.a.	n.a.	-	n.a.	n.a.	57	0.010	488
62	Finland	0.456	61	0.570	27 521	48	0.578	18 196	58	0.603	29 457
63	France	4.859	62	6.076	293 251	49	6.164	193 895	59	6.427	313 888
64	Gabon	0.017	63	0.021	1 026	50	0.022	678	60	0.022	1 098
65	Gambia	0.001	64	0.001	60	51	0.010	315	61	0.010	488
66	Georgia	0.008	65	0.010	483	52	0.010	315	62	0.010	488
67	Germany	6.389	66	7.990	385 589	53	8.104	254 949	63	8.451	412 725
68	Ghana	0.016	67	0.020	966	54	0.020	638	64	0.021	1 034
69	Greece	0.471	68	0.589	28 426	55	0.597	18 795	65	0.623	30 426
70	Guatemala	0.028	69	0.035	1 690	56	0.036	1 117	66	0.037	1 809
71	Guinea	0.002	70	0.003	121	57	0.010	315	67	0.010	488
72	Guinea-Bissau	0.001	71	0.001	60	58	0.010	315	68	0.010	488
73	Guyana	0.002	72	0.003	121	59	0.010	315	69	0.010	488
74	Honduras	0.008	73	0.010	483	60	0.010	315	70	0.010	488
75	Hungary	0.161	74	0.201	9 717	61	0.204	6 425	71	0.213	10 400
76	Iceland	0.023	75	0.029	1 388	-	n.a.	n.a.	72	0.030	1 486

Party Nation Scale Party Nation Scale Party Nation Scale Party Party Nation Scale Party		United Nations Secreta	ariat scale	Ba	sel Conven	tion (BCL)	Rott	erdam Conve	ention (ROL)	Stoc	kholm Conv	vention (SCL)
Per cent			United Nations		BC adjusted scale,	Average annual contribution for		RC adjusted scale,	Average annual contribution for		SC adjusted scale,	Average <u>annual</u> contribution for biennium
Part		Remarks	(1)		(2)	(4)		(3)	(4)		(3)	(4)
78 Indonesia 0.504 77 0.630 30 417 63 0.639 20 112 74 0.667 178 Iran (Islamic Republic of) 0.471 78 0.589 28 426 64 0.597 18 795 75 0.623 80 Iraq 0.129 79 0.161 7 785 - n.a. n.a. 76 0.171 81 Ireland 0.335 80 0.419 20 218 65 0.425 17 159 - n.a. 82 Iaral 0.430 81 0.538 25 951 66 0.545 17 159 - n.a. 84 Iaral 0.040 83 0.011 543 68 0.011 359 8 0.010 85 Japan 9.680 84 12.105 584 208 69 12.279 386 274 79 12.804 86 Jordan 0.029 83 0.025 1207 70 0.025 <t< td=""><td></td><td>-</td><td>Per cent</td><td>No.</td><td>Per cent</td><td>States</td><td>No.</td><td>Per cent</td><td>States</td><td>No.</td><td>Per cent</td><td>United States dollars</td></t<>		-	Per cent	No.	Per cent	States	No.	Per cent	States	No.	Per cent	United States dollars
179 179 179 1879 1879 75 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623 0.623	77	India	0.737	76	0.922	44 479	62	0.935	29 410	73	0.975	47 610
180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180 180	78	Indonesia	0.504	77	0.630	30 417	63	0.639	20 112	74	0.667	32 558
81 Ireland 0.335 80 0.419 20 218 65 0.425 13 368 77 0.443 82 Israel 0.430 81 0.538 25 951 66 0.545 17 159 - n.a. 83 Italy 3.748 82 4.687 226 200 67 4.754 149 562 - n.a. 84 Jamaica 0.009 83 0.011 543 68 0.011 149 562 - n.a. 85 Japan 9.680 84 12.105 584 208 69 12.279 386 274 79 12.804 86 Jordan 0.020 85 0.023 11527 71 0.022 76 22 81 0.253 87 Kazakhstan 0.0191 86 0.023 11866 72 0.023 718 82 0.024 89 Kiribati 0.001 88 0.001 61 72 0.023 113 36 83	79	_	0.471	78	0.589	28 426	64	0.597	18 795	75	0.623	30 426
82 Israel 0.430 81 0.538 25 951 66 0.545 17 159 - n.a. 83 Italy 3.748 82 4.687 226 200 67 4.754 149 562 - n.a. 84 Jamaica 0.009 83 0.011 543 68 0.011 359 78 0.010 85 Japan 9.680 84 12.105 584 208 69 12.279 386 274 79 12.804 86 Jordan 0.020 85 0.025 1207 70 0.025 798 80 0.026 87 Kazakhstan 0.191 86 0.239 11527 71 0.242 7622 81 0.253 88 Kenya 0.018 87 0.023 106 6 n.a.	80	Iraq	0.129	79	0.161	7 785	_	n.a.	n.a.	76	0.171	8 333
83 Italy 3.748 82 4.687 226 200 67 4.754 149 562 - n.a. 84 Jamaica 0.009 83 0.011 543 68 0.011 359 78 0.010 85 Japan 9.680 84 12.105 584 208 69 12.279 386 274 79 12.804 86 Jordan 0.020 85 0.025 1 207 70 0.024 7622 81 0.253 88 Kenya 0.018 87 0.023 11 527 71 0.242 7 622 81 0.024 89 Kiribati 0.001 88 0.001 60 - n.a. n.a. n.a. 83 0.012 90 Kuwait 0.285 89 0.356 17 200 73 0.362 11 373 84 0.377 91 Kuwait 0.285 89 0.356 17 200 73 0.010	81	Ireland	0.335	80	0.419	20 218	65	0.425	13 368	77	0.443	21 641
84 Jamaica 0.009 83 0.011 543 68 0.011 359 78 0.010 85 Japan 9.680 84 12.105 584 208 69 12.279 386 274 79 12.804 86 Jordan 0.020 85 0.025 1 207 70 0.025 798 80 0.026 87 Kazakhstan 0.191 86 0.239 111 527 71 0.242 7622 81 0.253 88 Kenya 0.018 87 0.023 1 1 086 72 0.023 718 82 0.024 89 Kiribati 0.001 88 0.001 60 - n.a. n.a. n.a. 0.012 90 Kuwait 0.285 89 0.036 17 200 73 0.362 11 373 84 0.377 91 Kurait 0.028 0.033 121 74 0.010 315 86	82	Israel	0.430	81	0.538	25 951	66	0.545	17 159	-	n.a.	n.a.
85 Japan 9.680 84 12.105 584 208 69 12.279 386 274 79 12.804 86 Jordan 0.020 85 0.025 1 207 70 0.025 798 80 0.026 87 Kazakhstan 0.191 86 0.239 11 527 71 0.242 7 622 81 0.253 88 Kenya 0.018 87 0.023 1 086 72 0.023 718 82 0.024 89 Kiribati 0.001 88 0.001 60 - n.a. n.a. 83 0.010 90 Kuwait 0.285 89 0.356 17 200 73 0.362 11 373 84 0.377 91 Kyrgyzstan 0.002 90 0.003 121 74 0.010 315 85 0.010 92 Lao People's Democratic Republic 0.004 93 0.058 2 776 77 0.058	83	Italy	3.748	82	4.687	226 200	67	4.754	149 562	-	n.a.	n.a.
86 Jordan 0.020 85 0.025 1 207 70 0.025 798 80 0.026 87 Kazakhstan 0.191 86 0.239 11 527 71 0.242 7 622 81 0.253 88 Kenya 0.018 87 0.023 1 0 86 72 0.023 718 82 0.024 89 Kiribati 0.001 88 0.001 60 - n.a. n.a. 83 0.010 90 Kuwait 0.285 89 0.356 17 200 73 0.362 11 373 84 0.371 91 Kyrgyzstan 0.002 90 0.003 121 74 0.010 315 86 0.010 92 Lao People's 0.003 91 0.004 181 75 0.010 315 86 0.010 92 Lao People's 0.005 92 0.063 3 018 76 0.063 1 995	84	Jamaica	0.009	83	0.011	543	68	0.011	359	78	0.010	488
87 Kazakhstan 0.191 86 0.239 11 527 71 0.242 7 622 81 0.253 88 Kenya 0.018 87 0.023 1 086 72 0.023 718 82 0.024 89 Kiribati 0.001 88 0.001 60 - n.a. n.a. 83 0.010 90 Kuwait 0.285 89 0.356 17 200 73 0.362 11 373 84 0.377 91 Kyrgyzstan 0.002 90 0.003 121 74 0.010 315 85 0.010 92 Lao People's Democratic Republic 0.003 91 0.004 181 75 0.010 315 86 0.010 93 Latvia 0.050 92 0.063 3 018 76 0.063 1 995 87 0.066 94 Lebanon 0.046 93 0.058 2 776 77 0.058 <	85	Japan	9.680	84	12.105	584 208	69	12.279	386 274	79	12.804	625 321
88 Kenya 0.018 87 0.023 1 086 72 0.023 718 82 0.024 89 Kiribati 0.001 88 0.001 60 - n.a. n.a. 83 0.010 90 Kuwait 0.285 89 0.356 17 200 73 0.362 11 373 84 0.377 91 Kyrgyzstan 0.002 90 0.003 121 74 0.010 315 85 0.010 92 Lao People's Democratic Republic 0.003 91 0.004 181 75 0.010 315 86 0.010 92 Latvia 0.050 92 0.063 3 018 76 0.063 1 995 87 0.066 94 Lebanon 0.046 93 0.058 2 776 77 0.058 1 836 88 0.061 95 Lesotho 0.001 95 0.001 60 79 0.010 315<	86	Jordan	0.020	85	0.025	1 207	70	0.025	798	80	0.026	1 292
89 Kiribati 0.001 88 0.001 60 — n.a. n.a. 83 0.010 90 Kuwait 0.285 89 0.356 17 200 73 0.362 11 373 84 0.377 91 Kyrgyzstan 0.002 90 0.003 121 74 0.010 315 85 0.010 92 Lao People's Democratic Republic 0.003 91 0.004 181 75 0.010 315 86 0.010 93 Latvia 0.050 92 0.063 3 018 76 0.063 1 995 87 0.066 94 Lebanon 0.046 93 0.058 2 776 77 0.058 1 836 88 0.061 95 Lesotho 0.001 94 0.001 60 78 0.010 315 89 0.010 97 Libia 0.125 96 0.156 7 544 80 0.159 488<	87	Kazakhstan	0.191	86	0.239	11 527	71	0.242	7 622	81	0.253	12 338
90 Kuwait 0.285 89 0.356 17 200 73 0.362 11 373 84 0.377 91 Kyrgyzstan 0.002 90 0.003 121 74 0.010 315 85 0.010 92 Lao People's Democratic Republic 93 Latvia 0.050 92 0.063 3 018 76 0.063 1 995 87 0.066 94 Lebanon 0.046 93 0.058 2 776 77 0.058 1 836 88 0.061 95 Lesotho 0.001 94 0.001 60 78 0.010 315 89 0.010 96 Liberia 0.001 95 0.001 60 79 0.010 315 90 0.010 97 Libya 0.125 96 0.156 7 544 80 0.159 4 988 91 0.165 98 Liechtenstein 0.007 97 0.009 422 81 0.010 315 92 0.010 99 Lithuania 0.072 98 0.090 4 345 82 0.091 2 873 93 0.095 100 Luxembourg 0.064 99 0.080 3 863 83 0.081 2 554 94 0.085 101 Madagascar 0.003 100 0.004 181 84 0.010 315 96 0.010 102 Malawi 0.022 101 0.003 121 85 0.010 315 96 0.010 103 Malaysia 0.322 102 0.403 19 433 86 0.408 12 849 - n.a. 104 Maldives 0.002 103 0.003 121 87 0.010 315 98 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 98 0.010 106 Malta 0.002 103 0.003 121 87 0.010 315 98 0.010 107 Marshall Islands 0.001 106 0.004 181 88 0.010 315 98 0.010 108 Mauritania 0.002 107 0.003 121 87 0.010 315 98 0.010 109 Mauritania 0.002 107 0.003 121 87 0.010 315 98 0.010 100 Mauritania 0.002 107 0.003 121 91 0.010 315 98 0.010 1010 Mauritania 0.002 107 0.003 121 91 0.010 315 100 0.010 108 Mauritania 0.002 107 0.003 121 91 0.010 315 100 0.010 109 Mauritius 0.012 108 0.015 724 92 0.015 479 102 0.016 110 Mexico 1.435 109 1.795 86 605 93 1.820 57 263 103 1.898 111 Micronesia (Federated States of)	88	Kenya	0.018	87	0.023	1 086	72	0.023	718	82	0.024	1 163
91 Kyrgyzstan 0.002 90 0.003 121 74 0.010 315 85 0.010 92 Lao People's 0.003 91 0.004 181 75 0.010 315 86 0.010 93 Latvia 0.050 92 0.063 3 0.8 76 0.063 1 995 87 0.066 94 Lebanon 0.046 93 0.058 2 776 77 0.058 1 836 88 0.061 95 Lesotho 0.001 94 0.001 60 78 0.010 315 89 0.010 96 Liberia 0.001 95 0.001 60 79 0.010 315 90 0.010 97 Libya 0.125 96 0.156 7 544 80 0.159 4 988 91 0.165 98 Liechtenstein 0.007 97 0.009 422 81 0.010 315 92 0.010 99 Lithuania 0.072 98 0.090 4 345 82 0.091 2 873 93 0.095 100 Luxembourg 0.064 99 0.080 3 863 83 0.081 2 554 94 0.085 101 Madagascar 0.003 100 0.004 181 84 0.010 315 95 0.010 102 Malawi 0.002 101 0.003 121 85 0.010 315 96 0.010 103 Malaysia 0.322 102 0.403 19 433 86 0.408 12 849 - n.a. 104 Maldives 0.002 103 0.003 121 87 0.010 315 98 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 98 0.010 106 Mata 0.001 106 0.003 121 87 0.010 315 98 0.010 107 Marshall Islands 0.001 106 0.000 181 88 0.010 315 98 0.010 108 Mauritania 0.002 107 0.003 121 97 0.010 315 100 0.011 109 Mauritius 0.012 108 0.015 724 92 0.015 479 102 0.016 110 Mexico 1.435 109 1.795 86 605 93 1.820 57 263 103 1.898 111 Micronesia (Federated 0.001 110 0.001 160 - n.a. n.a. 104 0.010 112 Monaco 0.010 111 0.001 60 - n.a. n.a. 105 0.013	89	Kiribati	0.001	88	0.001	60	_	n.a.	n.a.	83	0.010	488
92 Lao People's Democratic Republic 0.003 91 0.004 181 75 0.010 315 86 0.010 93 Latvia 0.050 92 0.063 3 018 76 0.063 1 995 87 0.066 94 Lebanon 0.046 93 0.058 2 776 77 0.058 1 836 88 0.061 95 Lesotho 0.001 94 0.001 60 78 0.010 315 89 0.010 96 Liberia 0.001 95 0.001 60 79 0.010 315 90 0.010 97 Libya 0.125 96 0.156 7 544 80 0.159 4 988 91 0.165 98 Liechtenstein 0.007 97 0.009 422 81 0.010 315 92 0.010 99 Lithuania 0.072 98 0.090 4 345 82 0.091	90	Kuwait	0.285	89	0.356	17 200	73	0.362	11 373	84	0.377	18 411
Democratic Republic 93 Latvia 0.050 94 Lebanon 0.046 93 0.058 2 776 77 0.058 1 836 88 0.061 95 Lesotho 0.001 94 0.001 60 78 0.010 315 89 0.010 96 Liberia 0.001 97 Libya 0.125 96 0.156 7 544 80 0.159 4 988 91 0.165 98 Liechtenstein 0.007 97 0.009 4 22 81 0.010 315 92 0.010 99 Lithuania 0.072 98 0.090 4 345 82 0.091 2 873 93 0.095 100 Luxembourg 0.064 99 0.080 3 863 83 0.081 2 554 94 0.085 101 Madagascar 0.003 100 0.004 181 84 0.010 315 95 0.010 102 Malawi 0.002 101 0.003 121 85 0.010 315 96 0.010 103 Malaysia 0.322 102 0.403 119 433 86 0.408 12 849 - n.a. 104 Maldives 0.002 103 0.003 121 87 0.010 315 98 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 96 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 96 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 97 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 98 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 97 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 98 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 98 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 98 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 98 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 98 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 98 0.010 106 Malta 0.016 105 0.020 966 89 0.020 638 99 0.021 107 Marshall Islands 0.001 106 0.001 160 0.001 160 0.001 160 0.001 160 0.001 160 0.001 160 0.001 160 0.001 160 0.001 160 0.001 160 0.001 160 0.001 160 0.001 160 0.001 160 0.001 160 0.001 160 0.001 160 0.001 0.003 1.898 111 Micronesia (Federated 0.001 110 0.001 110 0.001 110 0.001 110 0.001 110 0.001 0.001	91	Kyrgyzstan	0.002	90	0.003	121	74	0.010	315	85	0.010	488
94 Lebanon 0.046 93 0.058 2 776 77 0.058 1 836 88 0.061 95 Lesotho 0.001 94 0.001 60 78 0.010 315 89 0.010 96 Liberia 0.001 95 0.001 60 79 0.010 315 90 0.010 97 Libya 0.125 96 0.156 7 544 80 0.159 4 988 91 0.165 98 Lichtenstein 0.007 97 0.009 422 81 0.010 315 92 0.010 99 Lithuania 0.072 98 0.090 4 345 82 0.091 2 873 93 0.095 100 Luxembourg 0.064 99 0.080 3 863 83 0.081 2 554 94 0.085 101 Madagascar 0.003 100 0.004 181 84 0.010 315	92	•	0.003	91	0.004	181	75	0.010	315	86	0.010	488
95 Lesotho 0.001 94 0.001 60 78 0.010 315 89 0.010 96 Liberia 0.001 95 0.001 60 79 0.010 315 90 0.010 97 Libya 0.125 96 0.156 7 544 80 0.159 4 988 91 0.165 98 Liechtenstein 0.007 97 0.009 4 22 81 0.010 315 92 0.010 99 Lithuania 0.072 98 0.090 4 345 82 0.091 2 873 93 0.095 100 Luxembourg 0.064 99 0.080 3 863 83 0.081 2 554 94 0.085 101 Madagascar 0.003 100 0.004 181 84 0.010 315 95 0.010 102 Malawi 0.002 101 0.003 121 85 0.010 315	93	Latvia	0.050	92	0.063	3 018	76	0.063	1 995	87	0.066	3 230
96 Liberia 0.001 95 0.001 60 79 0.010 315 90 0.010 97 Libya 0.125 96 0.156 7 544 80 0.159 4 988 91 0.165 98 Liechtenstein 0.007 97 0.009 4 22 81 0.010 315 92 0.010 99 Lithuania 0.072 98 0.090 4 345 82 0.091 2 873 93 0.095 100 Luxembourg 0.064 99 0.080 3 863 83 0.081 2 554 94 0.085 101 Madagascar 0.003 100 0.004 181 84 0.010 315 95 0.010 102 Malawi 0.002 101 0.003 121 85 0.010 315 96 0.010 103 Malaysia 0.322 102 0.403 19 433 86 0.408 12 849 </td <td>94</td> <td>Lebanon</td> <td>0.046</td> <td>93</td> <td>0.058</td> <td>2 776</td> <td>77</td> <td>0.058</td> <td>1 836</td> <td>88</td> <td>0.061</td> <td>2 972</td>	94	Lebanon	0.046	93	0.058	2 776	77	0.058	1 836	88	0.061	2 972
97 Libya 0.125 96 0.156 7 544 80 0.159 4 988 91 0.165 98 Liechtenstein 0.007 97 0.009 422 81 0.010 315 92 0.010 99 Lithuania 0.072 98 0.090 4 345 82 0.091 2 873 93 0.095 100 Luxembourg 0.064 99 0.080 3 863 83 0.081 2 554 94 0.085 101 Madagascar 0.003 100 0.004 181 84 0.010 315 95 0.010 102 Malawi 0.002 101 0.003 121 85 0.010 315 96 0.010 103 Malaysia 0.322 102 0.403 19 433 86 0.408 12 849 - n.a. 104 Maldives 0.002 103 0.003 121 87 0.010 315 97 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 98 0.010 106 Malta 0.016 105 0.020 966 89 0.020 638 99 0.021 107 Marshall Islands 0.001 106 0.001 60 90 0.010 315 100 0.010 108 Mauritania 0.002 107 0.003 121 91 0.010 315 100 0.010 109 Mauritius 0.012 108 0.015 724 92 0.015 479 102 0.016 110 Mexico 1.435 109 1.795 86 605 93 1.820 57 263 103 1.898 111 Micronesia (Federated 0.001 111 0.001 60 - n.a. n.a. 104 0.010 States of)	95	Lesotho	0.001	94	0.001	60	78	0.010	315	89	0.010	488
98 Liechtenstein 0.007 97 0.009 422 81 0.010 315 92 0.010 99 Lithuania 0.072 98 0.090 4 345 82 0.091 2 873 93 0.095 100 Luxembourg 0.064 99 0.080 3 863 83 0.081 2 554 94 0.085 101 Madagascar 0.003 100 0.004 181 84 0.010 315 95 0.010 102 Malawi 0.002 101 0.003 121 85 0.010 315 96 0.010 103 Malaysia 0.322 102 0.403 19 433 86 0.408 12 849 - n.a. 104 Maldives 0.002 103 0.003 121 87 0.010 315 97 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 98 0.010 106 Malta 0.016 105 0.020 966 89 0.020 638 99 0.021 107 Marshall Islands 0.001 106 0.001 60 90 0.010 315 100 0.010 108 Mauritania 0.002 107 0.003 121 91 0.010 315 101 0.010 109 Mauritius 0.012 108 0.015 724 92 0.015 479 102 0.016 110 Mexico 1.435 109 1.795 86 605 93 1.820 57 263 103 1.898 111 Micronesia (Federated States of) 112 Monaco 0.010 111 0.013 604 - n.a. n.a. 105 0.013	96	Liberia	0.001	95	0.001	60	79	0.010	315	90	0.010	488
99 Lithuania 0.072 98 0.090 4 345 82 0.091 2 873 93 0.095 100 Luxembourg 0.064 99 0.080 3 863 83 0.081 2 554 94 0.085 101 Madagascar 0.003 100 0.004 181 84 0.010 315 95 0.010 102 Malawi 0.002 101 0.003 121 85 0.010 315 96 0.010 103 Malaysia 0.322 102 0.403 19 433 86 0.408 12 849 - n.a. 104 Maldives 0.002 103 0.003 121 87 0.010 315 97 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 98 0.010 106 Malta 0.016 105 0.020 966 89 0.020 638 99 0.021 107 Marshall Islands 0.001 106 0.001 60 90 0.010 315 100 0.010 108 Mauritania 0.002 107 0.003 121 91 0.010 315 101 0.010 109 Mauritius 0.012 108 0.015 724 92 0.015 479 102 0.016 110 Mexico 1.435 109 1.795 86 605 93 1.820 57 263 103 1.898 111 Micronesia (Federated 0.001 110 0.001 60 - n.a. n.a. 104 0.010 112 Monaco 0.010 111 0.013 604 - n.a. n.a. 105 0.013	97	Libya	0.125	96	0.156	7 544	80	0.159	4 988	91	0.165	8 075
100 Luxembourg 0.064 99 0.080 3 863 83 0.081 2 554 94 0.085 101 Madagascar 0.003 100 0.004 181 84 0.010 315 95 0.010 102 Malawi 0.002 101 0.003 121 85 0.010 315 96 0.010 103 Malaysia 0.322 102 0.403 19 433 86 0.408 12 849 - n.a. 104 Maldives 0.002 103 0.003 121 87 0.010 315 97 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 98 0.010 106 Malta 0.016 105 0.020 966 89 0.020 638 99 0.021 107 Marshall Islands 0.001 106 0.001 60 90 0.010 315 100 0.010 109 Mauritania 0.002 107 0.003 <td>98</td> <td>Liechtenstein</td> <td>0.007</td> <td>97</td> <td>0.009</td> <td>422</td> <td>81</td> <td>0.010</td> <td>315</td> <td>92</td> <td>0.010</td> <td>488</td>	98	Liechtenstein	0.007	97	0.009	422	81	0.010	315	92	0.010	488
101 Madagascar	99	Lithuania	0.072	98	0.090	4 345	82	0.091	2 873	93	0.095	4 651
102 Malawi 0.002 101 0.003 121 85 0.010 315 96 0.010 103 Malaysia 0.322 102 0.403 19 433 86 0.408 12 849 - n.a. 104 Maldives 0.002 103 0.003 121 87 0.010 315 97 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 98 0.010 106 Malta 0.016 105 0.020 966 89 0.020 638 99 0.021 107 Marshall Islands 0.001 106 0.001 60 90 0.010 315 100 0.010 108 Mauritania 0.002 107 0.003 121 91 0.010 315 101 0.010 109 Mauritius 0.012 108 0.015 724 92 0.015 479 102 0.016 110 Mexico 1.435 109 1.795	100	Luxembourg	0.064	99	0.080	3 863	83	0.081	2 554	94	0.085	4 134
103 Malaysia 0.322 102 0.403 19 433 86 0.408 12 849 - n.a. 104 Maldives 0.002 103 0.003 121 87 0.010 315 97 0.010 105 Mali 0.003 104 0.004 181 88 0.010 315 98 0.010 106 Malta 0.016 105 0.020 966 89 0.020 638 99 0.021 107 Marshall Islands 0.001 106 0.001 60 90 0.010 315 100 0.010 108 Mauritania 0.002 107 0.003 121 91 0.010 315 101 0.010 109 Mauritius 0.012 108 0.015 724 92 0.015 479 102 0.016 110 Mexico 1.435 109 1.795 86 605 93 1.820 57 263 103 1.898 111 Micronesia (Federated States of) 0.010	101	Madagascar	0.003	100	0.004	181	84	0.010	315	95	0.010	488
104 Maldives	102	Malawi	0.002	101	0.003	121	85	0.010	315	96	0.010	488
105 Mali 0.003 104 0.004 181 88 0.010 315 98 0.010 106 Malta 0.016 105 0.020 966 89 0.020 638 99 0.021 107 Marshall Islands 0.001 106 0.001 60 90 0.010 315 100 0.010 108 Mauritania 0.002 107 0.003 121 91 0.010 315 101 0.010 109 Mauritius 0.012 108 0.015 724 92 0.015 479 102 0.016 110 Mexico 1.435 109 1.795 86 605 93 1.820 57 263 103 1.898 111 Micronesia (Federated States of) 0.001 110 0.001 60 - n.a. n.a. n.a. 104 0.010 112 Monaco 0.010 111 0.013 604 - n.a. n.a. n.a. 105 0.013	103	Malaysia	0.322	102	0.403	19 433	86	0.408	12 849	-	n.a.	n.a.
106 Malta 0.016 105 0.020 966 89 0.020 638 99 0.021 107 Marshall Islands 0.001 106 0.001 60 90 0.010 315 100 0.010 108 Mauritania 0.002 107 0.003 121 91 0.010 315 101 0.010 109 Mauritius 0.012 108 0.015 724 92 0.015 479 102 0.016 110 Mexico 1.435 109 1.795 86 605 93 1.820 57 263 103 1.898 111 Micronesia (Federated States of) 0.001 110 0.001 60 - n.a. n.a. n.a. 104 0.010 112 Monaco 0.010 111 0.013 604 - n.a. n.a. n.a. 105 0.013	104	Maldives	0.002	103	0.003	121	87	0.010	315	97	0.010	488
107 Marshall Islands 0.001 106 0.001 60 90 0.010 315 100 0.010 108 Mauritania 0.002 107 0.003 121 91 0.010 315 101 0.010 109 Mauritius 0.012 108 0.015 724 92 0.015 479 102 0.016 110 Mexico 1.435 109 1.795 86 605 93 1.820 57 263 103 1.898 111 Micronesia (Federated States of) 0.001 110 0.001 60 - n.a. n.a. n.a. 104 0.010 112 Monaco 0.010 111 0.013 604 - n.a. n.a. n.a. 105 0.013	105	Mali	0.003	104	0.004	181	88	0.010	315	98	0.010	488
108 Mauritania 0.002 107 0.003 121 91 0.010 315 101 0.010 109 Mauritius 0.012 108 0.015 724 92 0.015 479 102 0.016 110 Mexico 1.435 109 1.795 86 605 93 1.820 57 263 103 1.898 111 Micronesia (Federated States of) 0.001 110 0.001 60 - n.a. n.a. 104 0.010 112 Monaco 0.010 111 0.013 604 - n.a. n.a. 105 0.013	106	Malta	0.016	105	0.020	966	89	0.020	638	99	0.021	1 034
109 Mauritius 0.012 108 0.015 724 92 0.015 479 102 0.016 110 Mexico 1.435 109 1.795 86 605 93 1.820 57 263 103 1.898 111 Micronesia (Federated States of) 0.001 110 0.001 60 - n.a. n.a. 104 0.010 112 Monaco 0.010 111 0.013 604 - n.a. n.a. 105 0.013	107	Marshall Islands	0.001	106	0.001	60	90	0.010	315	100	0.010	488
110 Mexico 1.435 109 1.795 86 605 93 1.820 57 263 103 1.898 111 Micronesia (Federated States of) 0.001 110 0.001 60 - n.a. n.a. 104 0.010 112 Monaco 0.010 111 0.013 604 - n.a. n.a. 105 0.013	108	Mauritania	0.002	107	0.003	121	91	0.010	315	101	0.010	488
111 Micronesia (Federated 0.001 110 0.001 60 - n.a. n.a. 104 0.010 States of) 112 Monaco 0.010 111 0.013 604 - n.a. n.a. 105 0.013	109	Mauritius	0.012	108	0.015	724	92	0.015	479	102	0.016	775
States of) 112 Monaco 0.010 111 0.013 604 – n.a. n.a. 105 0.013	110	Mexico	1.435	109	1.795	86 605	93	1.820	57 263	103	1.898	92 700
	111	· ·	0.001	110	0.001	60	-	n.a.	n.a.	104	0.010	488
112 Mongolia 0.005 112 0.006 202 04 0.010 215 106 0.010	112	Monaco	0.010	111	0.013	604	_	n.a.	n.a.	105	0.013	646
113 Mongona 0.003 112 0.000 302 94 0.010 313 106 0.010	113	Mongolia	0.005	112	0.006	302	94	0.010	315	106	0.010	488
114 Montenegro 0.004 113 0.005 241 95 0.010 315 107 0.010	114	Montenegro	0.004	113	0.005	241	95	0.010	315	107	0.010	488
115 Morocco 0.054 114 0.068 3 259 96 0.068 2 155 108 0.071	115	Morocco	0.054	114	0.068	3 259	96	0.068	2 155	108	0.071	3 488

	United Nations Secret	ariat scale	Bas	sel Conven	tion (BCL)	Rott	erdam Conve	ention (ROL)	Stock	kholm Conv	vention (SCL)
	Party	United Nations scale		BC adjusted scale, per cent	Average annual contribution for biennium		RC adjusted scale, per cent	Average <u>annual</u> contribution for biennium		SC adjusted scale, per cent	Average <u>annual</u> contribution for biennium
	Remarks	(1)		(2)	(4)		(3)	(4)		(3)	(4)
	-	Per cent	No.	Per cent	United States dollars	No.	Per cent	United States dollars	No.	Per cent	United States dollars
116	Mozambique	0.004	115	0.005	241	97	0.010	315	109	0.010	488
117	Myanmar	0.010	116	0.010	483	-	n.a.	n.a.	110	0.010	488
118	Namibia	0.010	117	0.013	604	98	0.519	16 334	111	0.013	646
119	Nauru	0.001	118	0.001	60	_	n.a.	n.a.	112	0.010	488
120	Nepal	0.006	119	0.008	362	99	0.010	315	113	0.010	488
121	Netherlands	1.482	120	1.853	89 442	100	1.880	59 138	114	1.960	95 736
122	New Zealand	0.268	121	0.335	16 174	101	0.340	10 694	115	0.354	17 313
123	Nicaragua	0.004	122	0.005	241	102	0.010	315	116	0.010	488
124	Niger	0.002	123	0.003	121	103	0.010	315	117	0.010	488
125	Nigeria	0.209	124	0.261	12 614	104	0.265	8 340	118	0.276	13 501
126	Niue	0.001		n.a.	n.a.	-	n.a.	n.a.	119	0.010	488
127	Norway	0.849	125	1.062	51 239	105	1.077	33 879	120	1.123	54 845
128	Oman	0.113	126	0.141	6 820	106	0.143	4 509	121	0.149	7 300
129	Pakistan	0.093	127	0.116	5 613	107	0.118	3 711	122	0.123	6 008
130	Palau	0.001	128	0.001	60	_	n.a.	n.a.	123	0.010	488
131	Panama	0.034	129	0.043	2 052	108	0.043	1 357	124	0.045	2 196
132	Papua New Guinea	0.004	130	0.005	241	_	n.a.	n.a.	125	0.010	488
133	Paraguay	0.014	131	0.018	845	109	0.018	559	126	0.019	924
134	Peru	0.136	132	0.170	8 208	110	0.173	5 427	127	0.180	8 786
135	Philippines	0.165	133	0.206	9 958	111	0.209	6 584	128	0.218	10 659
136	Poland	0.841	134	1.052	50 756	112	1.067	33 560	129	1.112	54 328
137	Portugal	0.392	135	0.490	23 658	113	0.497	15 643	130	0.519	25 323
138	Qatar	0.269	136	0.336	16 235	114	0.341	10 734	131	0.356	17 377
139	Republic of Korea	2.039	137	2.550	123 058	115	2.586	81 365	132	2.697	131 718
140	Republic of Moldova	0.004	138	0.005	241	116	0.010	315	133	0.010	488
141	Romania	0.184	139	0.230	11 105	117	0.233	7 342	134	0.243	11 886
142	Russian Federation	3.088	140	3.862	186 367	118	3.917	123 225	135	4.085	199 483
143	Rwanda	0.002	141	0.003	121	119	0.010	315	136	0.010	488
144	Saint Kitts and Nevis	0.001	142	0.001	60	120	0.010	315	137	0.010	488
145	Saint Lucia	0.001	143	0.001	60	_	n.a.	n.a.	138	0.010	488
146	Saint Vincent and the Grenadines	0.001	144	0.001	60	121	0.010	315	139	0.010	488
147	Samoa	0.001	145	0.001	60	122	0.010	315	140	0.010	488
148	Sao Tome and Principe	0.001	146	0.001	60	123	0.010	315	141	0.010	488
149	Saudi Arabia		147	1.433	69 163		1.454	45 730	142	1.516	74 031
150	Senegal		148	0.006		125	0.010	315	143	0.010	488
151	Serbia	0.032	149	0.040	1 931	126	0.041	1 277	144	0.042	2 067
152	Seychelles	0.001	150	0.001	60	-	n.a.		145	0.010	488
153	Sierra Leone	0.001	151	0.001		127	0.010	315	146	0.010	488
154	Singapore		152	0.559	26 977		0.567	17 837	147	0.591	28 876
155	Slovakia	0.160	153	0.200	9 656	129	0.203	6 385	148	0.212	10 336

	United Nations Secret	ariat scale	Ba	sel Conven	tion (BCL)	Rott	erdam Conve	ention (ROL)	Stoc	kholm Conv	vention (SCL)
	Party	United Nations scale		BC adjusted scale, per cent	Average <u>annual</u> contribution for biennium		RC adjusted scale, per cent	Average <u>annual</u> contribution for biennium		SC adjusted scale, per cent	Average <u>annual</u> contribution for biennium
	Remarks	(1)		(2)	(4)		(3)	(4)		(3)	(4)
	-	Per cent	No.	Per cent	United States dollars	No.	Per cent	United States dollars	No.	Per cent	United States dollars
156	Slovenia	0.084	154	0.105	5 070	130	0.107	3 352	149	0.111	5 426
157	Solomon Islands	0.001		n.a.	n.a.	-	n.a.	n.a.	150	0.010	488
158	Somalia	0.001	155	0.001	60	131	0.010	315	151	0.010	488
159	South Africa	0.364	156	0.455	21 968	132	0.462	14 525	152	0.481	23 514
160	Spain	2.443	157	3.055	147 440	133	3.099	97 486	153	3.231	157 816
161	Sri Lanka	0.031	158	0.039	1 871	134	0.039	1 237	154	0.041	2 003
162	State of Palestine	0.001	159	0.001	60	_	n.a.	n.a.	-	n.a.	n.a.
163	Sudan	0.010	160	0.010	483	135	0.010	315	155	0.010	488
164	Suriname	0.006	161	0.008	362	136	0.010	315	156	0.010	488
165	Swaziland	0.002	162	0.003	121	137	0.010	315	157	0.010	488
166	Sweden	0.956	163	1.196	57 697	138	1.213	38 149	158	1.265	61 757
167	Switzerland	1.140	164	1.426	68 801	139	1.446	45 491	159	1.508	73 643
168	Syrian Arab Republic	0.024	165	0.030	1 448	140	0.030	958	160	0.032	1 550
169	Tajikistan	0.004	166	0.005	241	-	n.a.	n.a.	161	0.010	488
170	Thailand	0.291	167	0.364	17 562	141	0.369	11 612	162	0.385	18 798
171	The former Yugoslav Republic of Macedonia	0.007	168	0.009	422	142	0.010	315	163	0.010	488
172	Togo	0.001	169	0.001	60	143	0.010	315	164	0.010	488
173	Tonga	0.001	170	0.001	60	144	0.010	315	165	0.010	488
174	Trinidad and Tobago	0.034	171	0.043	2 052	145	0.043	1 357	166	0.045	2 196
175	Tunisia	0.028	172	0.035	1 690	146	0.036	1 117	167	0.037	1 809
176	Turkey	1.018	173	1.273	61 438	-	n.a.	n.a.	168	1.347	65 762
177	Turkmenistan	0.026	174	0.033	1 569	-	n.a.	n.a.	-	n.a.	n.a.
178	Tuvalu	0.001		n.a.	n.a.	-	n.a.	n.a.	169	0.010	488
179	Uganda	0.009	175	0.010	483	147	0.010	315	170	0.010	488
180	Ukraine	0.103	176	0.129	6 216	148	0.131	4 110	171	0.136	6 654
181	United Arab Emirates	0.604	177	0.755	36 453	149	0.766	24 102	172	0.799	39 018
182	United Kingdom of Great Britain and Northern Ireland	4.463	178	5.581	269 351	150	5.661	178 093	173	5.903	288 307
183	United Republic of Tanzania	0.010	179	0.010	483	151	0.010	315	174	0.010	488
184	Uruguay	0.079	180	0.099	4 768	152	0.100	3 152	175	0.104	5 103
185	Uzbekistan	0.023	181	0.029	1 388	-	n.a.	n.a.	-	n.a.	n.a.
186	Vanuatu	0.001		n.a.	n.a.	-	n.a.	n.a.	176	0.010	488
187	Venezuela	0.571	182	0.714	34 461	153	0.724	22 785	177	0.755	36 886
188	Viet Nam	0.058	183	0.073	3 500	154	0.074	2 314	178	0.077	3 747
189	Yemen	0.010	184	0.010	483	155	0.010	315	179	0.010	488
190	Zambia	0.007	185	0.009	422	156	0.010	315	180	0.010	488
191	Zimbabwe	0.004	186	0.005	241	157	0.010	315	181	0.010	488
	Total (annual)	80.490		100.000	4 826 060		100.000	3 145 813		100.000	4 883 825
-	Total (biennium)				9 652 121			6 291 627			9 767 650
-											

- (1) United Nations scale of assessment per General Assembly resolution 70/245, adopted at the seventieth session of the General Assembly for the years 2016, 2017 and 2018 on 23 December 2015.
- (2) Per rule 5, paragraph 1 (a), of the financial rules of the Basel Convention, contributions made each year by Parties should be based on an indicative scale based on the United Nations scale approved by the General Assembly and should be adjusted to ensure that (i) no Party contributes less than 0.001 per cent of the total, (ii) no one contribution exceeds 22 per cent of the total and (iii) no contribution from a least developed country Party exceeds 0.01 per cent of the total.
- (3) Per rule 5, paragraph 1 (a), of the financial rules of the Rotterdam and Stockholm conventions, contributions made each year by Parties should be based on an indicative scale based on the United Nations scale approved by the General Assembly and should be adjusted to ensure that (i) no Party contributes less than 0.01 per cent of the total, (ii) no one contribution exceeds 22 per cent of the total and (iii) no contribution from a least developed country Party exceeds 0.01 per cent of the total.
- (4) This is the annual contribution to be paid by the Parties both in 2018 and 2019. It is the same for both years and is based on the total required funds for the biennium and the average requirement for the year.

 ${\bf Table~3} \\ {\bf Indicative~staffing~table~for~the~Secretariat~of~the~Basel,~Rotterdam~and~Stockholm~conventions~for~the~biennium~2018–2019}$

Posts funded from the general trust funds (used for costing purposes only)

Staff category and	Approv		Basel, Rotterda conventions	m and	Total pro	-	2019 Basel, Rotte n conventions	rdam and
level	Core funded	In-kind by FAO	UNEP programme support costs	Total	Core funded	In-kind by FAO	UNEP programme support costs	Total
A. Professional category								
D-2 level	1.00	0.25	_	1.25	1.00	0.25	_	1.25
D-1 level	1.00	_	_	1.00	1.00	_	_	1.00
P-5 level	7.50	_	_	7.50	7.00	_	_	7.00
P-4 level	8.00	_	2.00	10.00	7.00	_	2.00	9.00
P-3 level	17.50	1.00	_	18.50	16.00	1.00	_	17.00
P-2 level	2.00	-	-	2.00	2.00	_	_	2.00
Subtotal A	37.00	1.25	2.00	40.25	34.00	1.25	2.00	37.25
B. General Service category								
GS	13.00	1.25	6.00	20.25	12.00	1.25	6.00	19.25
Subtotal B	13.00	1.25	6.00	20.25	12.00	1.25	6.00	19.25
TOTAL (A+B)	50.00	2.50	8.00	60.50	46.00	2.50	8.00	56.50
Remarks	(1)	(2)	(3)		(1)	(2)	(3)	

- (1) Post funded by assessed contributions.
- (2) Provided by FAO as an in in-kind contribution in its capacity as part of the Rotterdam Secretariat
- (3) Funded by the programme support cost of 13 per cent accrued from both assessed (core) and voluntary contributions; includes finance, administration and logistics staff.

Posts funded from voluntary special and technical cooperation trust funds (used for costing purposes only)

Staff category and level	Approved 2016–2017 Basel, Rotterdam and Stockholm conventions	Total proposed 2018–2019 Basel, Rotterdam and Stockholm conventions
A. Professional category		
D-2 level	_	_
D-1 level	_	_
P-5 level	_	_
P-4 level	1.00	
P-3 level	5.25	1.00
P-2 level	I	I
Subtotal A	6.25	1.00
B. General Service category		
GS	4.00	1.00
Subtotal B	4.00	1.00
TOTAL (A+B)	10.25	2.00
Remarks	10120	(1)

Remarks:

(1) Voluntarily-funded staff will be recruited only if funds are available.

Projected salary costs for Geneva for the biennium 2018–2019 (United States dollars)

		2016	2017	2018	2019	2018–2019
А. В.	Professional category					
	D-2	332 988	339 648	346 441	353 370	699 811
	D-1	332 988	339 648	346 441	353 370	699 811
	P-5	295 207	301 111	307 133	313 276	620 409
	P-4	224 791	229 287	233 873	238 550	472 423
	P-3	183 774	187 449	191 198	195 022	386 221
	P-2	144 919	147 817	150 773	153 789	304 562
В.	General Service category					
	GS	131 318	133 945	136 623	139 356	275 979
C.	Other direct personnel costs					
	Retirement and replacement recruitment costs					351 115
	ASHI costs	116 000	117 624	119 271	120 941	240 211
	Remarks	(1)	(2)	(2)	(2)	(3), (4)

- (1) Average actual salary costs including staff entitlement of BRS Geneva staff for 2016 was used as basis to project future salary costs.
- (2) Staff costs for 2017, 2018 and 2019 were estimated by using the actual costs of 2016 with an increase of 2 per cent per annum to cover for salary step increase, inflation, exchange rate fluctuations and unexpected adverse movements in salary costs.
- (3) The projected actual salary costs for the biennium exclude the estimated retirement and recruitment costs of a total of USD 351,115 for 4 staff members for staff due to retire and their replacements. The retirement/recruitment costs are an integral part of the staffing costs and have been added separately.
- (4) After service health insurance (ASHI) is a new staff-related cost that is 3 per cent of the net base salary of every staff member and is mandatory in the United Nations Secretariat as at 1 January 2017. These costs were not yet mandatory in 2016 and thus are included separately.

Projected salary costs for Rome for the biennium 2018–2019 (United States dollars)

	Staff category and level	2016	2017	2018	2019	2018-2019
A.	Professional category	-	-	-	•	
	P-5	220 381	224 788	229 284	233 870	463 154
	P-4	228 301	232 867	237 524	242 274	479 798
	P-3	185 452	189 161	192 944	196 803	389 747
	P-2	136 869	139 607	142 399	145 247	287 645
В.	General Service category					
	GS	94 042	95 923	97 842	99 799	197 640
C.	Other direct personnel costs					
	ASHI costs	22 000	22 308	22 620	22 937	45 557
	Remarks	(1)	(2)	(2)	(2)	(2), (3)

⁽¹⁾ Average actual salary costs including staff entitlements and improved cost recovery uplift (ICRU) in respect of Rome staff for 2016 was used as a basis to project future salary costs.

⁽²⁾ Staff costs for 2017, 2018 and 2019 were estimated by using the actual costs of 2016 increased by 2 per cent per annum. No retirement or recruitment costs were included in the estimates.

⁽³⁾ After service health insurance (ASHI) is a new staff-related cost that is 3 per cent of the net base salary of every staff member and is mandatory in the United Nations Secretariat as at 1 January 2017. These costs were not yet mandatory in 2016 and thus are included separately.

Annex II

Report of the high-level segment of the 2017 meetings of the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions

1. The high-level segment of the meetings of the Conferences of the Parties to the Basel, Rotterdam and Stockholm conventions took place on the afternoon of Thursday, 4 May 2017, and the morning of Friday, 5 May 2017, focusing on the theme "A future detoxified: sound management of chemicals and waste". The segment comprised a ceremony to mark recent ratifications of the Basel Convention Ban Amendment; introductory statements by the members of a high-level panel; twelve simultaneous ministerial round-table discussions; and a presentation and discussion of the key messages emerging from the round-table discussions.

I. Opening of the high-level segment

- 2. Following a performance of traditional Swiss music, Ms. Corinne Momal-Vanian, Director of the Division of Conference Management of the United Nations Office at Geneva, welcomed the participants to the high-level segment.
- 3. Opening remarks were made by Mr. Marc Chardonnens (Switzerland), Chair of the high-level segment of the 2017 meetings of the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions; Mr. Sam Adu-Kumi (Ghana), President of the Conference of the Parties to the Stockholm Convention, speaking also on behalf of the presidents of the conferences of the Parties to the Basel and Rotterdam conventions; Mr. Erik Solheim, Executive Director of the United Nations Environment Programme (UNEP); Ms. Naoko Ishii, Chief Executive Officer and Chair of the Global Environment Facility (GEF); and Ms. Maria Helena Semedo, Deputy Director-General for Climate and Natural Resources of the Food and Agriculture Organization of the United Nations (FAO). Ms. Kate Gilmore, United Nations Deputy High Commissioner for Human Rights, then delivered a keynote speech.
- 4. In his opening remarks, Mr. Chardonnens welcomed the participants, extending particular greetings to the Executive Director of UNEP, the executive secretaries of the Basel, Rotterdam and Stockholm conventions and the presidents of the Conferences of the Parties to the three conventions. The national and international focus on the Sustainable Development Goals, he said, was contributing to the mainstreaming of sustainable chemicals and waste management in development, environmental and economic plans, and the Basel, Rotterdam and Stockholm conventions, together with the Minamata Convention on Mercury, constituted the cornerstones of an environmental governance structure. He urged countries to ratify the Minamata Convention. While congratulating the Parties on the listing of several chemicals in the Rotterdam and Stockholm conventions at the current meeting, he said that the conventions must either be amended or complemented by additional instruments to ensure the sound management of chemicals and waste throughout their lifecycles. He called on Parties to be ambitious and to collaborate to enhance the effectiveness of the three conventions, saying that the cost of failing to do so was too high.
- 5. Highlighting the improvement in cooperation and coordination among the Basel, Rotterdam and Stockholm conventions, he said that it must continue to counter fragmentation and ensure that the conventions could face the challenges of a globalized world with innovative technology. Highlighting the need for adequate means to meet the challenges, he welcomed the increased funding for chemicals and waste management in the most recent GEF replenishment. He called on Governments to lead by example, including by acting as convenors and enablers, and he stressed the importance of multi-stakeholder partnerships such as the Mobile Phone Partnership Initiative and the Partnership for Action on Computing Equipment under the Basel Convention, in finding and implementing solutions to specific problems. As important as it was to respond immediately to pressing issues, however, he also underscored the need to think strategically about long-term objectives and to adopt the policies required to achieve them.
- 6. Mr. Adu-Kumi, in his welcoming remarks, said that the high-level segment provided an opportunity to reflect not only on the intensive work conducted during the 2017 meetings but also on the links between that work and the many broader environmental and sustainable development issues facing humanity. In that context, the Basel, Rotterdam and Stockholm conventions demonstrated synergy at its best and exemplified the beauty of unity and diversity. The theme of the meetings, "A future detoxified: sound management of chemicals and waste", had captured imaginations and brought home the message that combined efforts and a common cross-cutting approach were key to achieving

that aim. The full commitment of all stakeholders, especially those at the highest level, was thus crucial to driving forward the global agenda on chemicals and waste.

- 7. Mr. Solheim said that it was gratifying that so many from around the world had gathered for the 2017 meetings of the conferences of the Parties, as they were doing in increasing numbers at other events to address global problems and improve lives. Indeed, the positive results achieved through the 2017 meetings showed that there was no limit to what could be accomplished by coordinating efforts toward a common goal, as already amply demonstrated by such successes as the implementation of the Montreal Protocol on Substances that Deplete the Ozone Layer, the signing and imminent entry into force of the Minamata Convention on Mercury and the eradication and control of such diseases as poliomyelitis, measles and smallpox. The next great ambition of achieving a pollution-free world was likewise achievable by setting the tone and direction for the global efforts and decisive national actions that it would require. But achieving that goal would also require a fair world in which developed countries provided technical assistance to others in pursuit of shared objectives, with Governments, civil society and the private sector all playing their parts. Chemicals undoubtedly provided enormous benefits to the world but their proper control was critical, particularly in what was a rapidly changing scientific environment. It was only by working together to find solutions to such issues that humanity would fully reap those benefits.
- Ms. Ishii began by highlighting how much the international situation had changed over the preceding two years with the adoption of milestone international agreements and a shift towards action and implementation of the sustainability agenda. The chemicals and waste agenda was emerging as the catalyst for sound economic and social systems, she said, but was tied to key economic systems and needed to be addressed systematically. With global pollution worsening at alarming rates and the continued use of toxic chemicals putting unsustainable pressure on the global environment, business as usual could not continue. With a rising world population and a growing middle class, production and consumption patterns had to be transformed; cities, industries and the food system had to be transformed to embrace supply chain interventions, innovative waste management approaches and alternatives to harmful chemicals. Economic sectors such as manufacturing, building and agriculture were highly dependent on chemicals, but also presented opportunities to reduce chemicals and waste through innovative approaches such as green chemistry and the circular economy and opportunities for synergies in climate action, responsible consumption, life on land and other areas covered by the Sustainable Development Goals. Noting that the seventh replenishment of the GEF trust fund would be informed by the outcome of the current meetings, she called for urgent work to bring about transformation through political leadership, coalitions for change and innovation. She closed her remarks by expressing the commitment of GEF to working with all Parties on the journey towards a future detoxified.
- Ms. Semedo opened her remarks by saying that although access to food was the most basic human right, nearly 800 million people, most living in rural areas, still suffered from hunger. The world's poor and hungry were the most vulnerable to the adverse effects of harmful pesticides and chemicals and waste. Growth in the agriculture sector remained one of most cost-effective means for developing countries to reduce poverty and end food insecurity, but sustainable agriculture must also contribute to detoxifying the air, water and soil. As an example of the work of FAO towards that end, she drew attention to the International Code of Conduct on Pesticide Management, developed jointly with the World Health Organization to help avert the negative consequences of pesticide misuse, including the decline in the populations of birds, insects and other pollinators vital to food production. She also noted efforts by FAO, in partnership with UNEP, to prevent the accumulation of microplastics in the marine environment, a growing concern for fisheries. Overall, FAO was committed to exploring innovative solutions, supporting dialogue, sharing information and enabling policies for sustainable agriculture, and promoted ecosystem approaches to achieve its aims. The farming, fishery and forestry sectors had demonstrated their ability to work together to share knowledge and expertise in finding innovative approaches to developing more effective, efficient and resilient production systems, but robust government structures, strong institutions, ministerial collaboration and international cooperation were required for countries to benefit more fully from global instruments such as the Basel, Rotterdam and Stockholm conventions. While good progress had been made in putting together mechanisms, frameworks and instruments at the national, regional and global levels, greater political will was needed to take advantage of them.
- 10. In her keynote speech, Ms. Gilmore likened the relationship between the sound management of chemicals and waste and the protection of human rights to a long-term marriage in which commitment had not always been strong, illustrating the point with the mercury poisoning in Minamata, Japan, that had given rise to the adoption of the Minamata Convention, the first recognized case of which had involved a child. Children were particularly vulnerable to the effects of toxic chemicals, but in what could be termed a silent pandemic the consequences might not manifest for

many years. Almost every country had ratified the Convention on the Rights of the Child, which, in Article 24, required States Parties to ensure adequate food and clean drinking water for children, taking into consideration the dangers and risks of environmental pollution. The story of the Minamata mercury poisoning demonstrated many issues with regard to the relationship between chemicals and waste management and human rights, including the power of community engagement to provide early warning; the rights of individuals and communities to receive information; the danger of stigmatization of and discrimination against the victims of toxic poisoning; the hindering of a prompt and effective response; the ability of large corporations to obstruct investigations into their malpractice, instil fear into their employees and neglect the rights of victims; and the harm that could result when the State sided with business over its citizens.

11. Humans were central to the inviolable, intricate relationship between biodiversity, species protection, environmental sustainability and human habitat, which broke down if humans were disconnected or disempowered. People had to be at the centre of the story, as they were the planet's greatest natural resource. Article 27 of the Universal Declaration of Human Rights asserted the right of everyone to share in scientific advancement and its benefits. Interference with that right for political or commercial purposes was a betrayal of human rights. Legal obligations must empower the State to oblige accountability from those whose resources and activities had the potential to cause great harm, even in the context of manufacture that could create great benefit. If it abandoned those responsibilities, it was derogating from its responsibilities as a State. Collateral damage to people and their rights in the pursuit of prosperity should not be allowed. Freedom of information was a fundamental human rights obligation, and a fundamental responsibility of the State. In conclusion, she said that the chemicals and human rights sectors should be partners in using the various measures at their disposal, including international agreements and instruments, and national legislation and political responsibility, to ensure commitment to human rights within the development nexus.

II. Round-table discussions

- 12. Following the opening of the high-level segment ministers, deputy ministers and ambassadors engaged in 12 simultaneous round-table discussions on the theme of the session: "A future detoxified: Sound management of chemicals and waste". Each round table was served by a high-level moderator from the United Nations Secretariat or other United Nations entity. A number of resource persons also participated in the round-table discussions. The composition of the round tables is set out in appendix I to the present report.
- 13. For the purposes of the ministerial round-table discussions the theme was subdivided into three sub-themes:
- (a) Opportunities for a detoxified future in the 2030 Agenda for Sustainable Development and its Sustainable Development Goals;
 - (b) Opportunities for strengthened implementation through partnerships;
- (c) Opportunities for reducing waste and pollution while enabling economic and social prosperity.
- 14. Following the round-table discussions, Mr. Tim Kasten, Deputy Director of the Economy Division of the United Nations Environment Programme, presented a compilation of the messages emerging therefrom.
- 15. The members of a ministerial panel representing the round-table discussions then reacted to the messages, with other participants from the discussions adding their views. The panel members were Ms. Arlette Sombo-Dibele, Minister of Environment, Sustainable Development, Water, Forests, and Hunting and Fishing (Central African Republic); Ms. Rosalie Matondo, Minister of Forest Economy, Sustainable Development and Environment (Congo); Mr. Khaled M. Fahmy, Minister of Environment (Egypt); Mr. Sydney A. Samuels, Minister of Environment and Natural Resources (Guatemala); Mr. Noel Holder, Minister of Agriculture (Guyana); Ms. Carole Dieschbourg, Minister of Sustainable Development and Infrastructure (Luxembourg); Mr. Etienne Didier Dogley, Minister of Environment, Energy and Climate Change (Seychelles); Mr. Singappuli Premajayantha, Minister of Environment and Renewable Energy (Sri Lanka) and Ms. O.C.Z. Muchinguri, Minister of Environment, Water and Climate (Zimbabwe).
- 16. In their reactions and comments, the panel members and other participants in the round-table discussions referred to some of the key issues identified as priorities across the three themes of the high-level segment, with many highlighting the role of the Basel, Rotterdam and Stockholm conventions in promoting implementation of the Sustainable Development Goals and in turn the

achievement of social and economic prosperity. In that context, numerous speakers mentioned the importance of synergies and of harmonizing national development plans with the Sustainable Development Goals, including as a way of facilitating the vital task of monitoring implementation. Several emphasized chemical and waste management as a priority for all, with another saying that immediate action to reduce pollution from chemical waste would be much less costly than dealing in the future with the consequences of inaction. Several speakers said that there was a need for robust legislation and regulations to control chemical and other wastes and imports of hazardous substances.

- 17. Several speakers said that institutional capacity-building was vital to ensuring the enforcement of relevant laws and regulations, particularly in developing countries, which should also receive training and guidance designed to promote implementation of the Basel, Rotterdam and Stockholm conventions. Many said that it was important to share knowledge, experiences and solutions to that end, including through scientific research and technology transfer. One speaker said that information and data must be transparent and readily available at all stages, including with regard to the life cycle of all products. In the interests of an integrated approach, numerous speakers emphasized the vital need for broad cooperation and partnership at the national, regional and global levels among all stakeholders, including Governments, ministries, civil society, academia, industry and business, with one saying that care must be taken to avoid any duplication of effort.
- 18. Various speakers also spoke of awareness-raising and education among the public, consumers and manufacturers as matters for attention. One said that financial assistance should be provided for that purpose and others said that simple language should be used to communicate the messages of the three conventions to the public. Other issues highlighted by speakers included a need to focus on the "3Rs" (reduce, reuse, recycle); waste management training for operators; innovative mechanisms for financing waste treatment centres; plastics and marine litter; price incentives to promote waste reduction; and, notably, the provision of financial assistance for building the capacities of small island developing States, other developing countries and least developed countries in the sound management of chemicals and waste. One said that the circular economy had its benefits but that care must be taken to ensure that recycled products did not contain toxins.
- 19. Speakers also said that there was a need for high-level commitment, political will, political coherence and a long-term strategic vision and framework for chemicals and waste management, with the last said to be a cross-cutting issue that called for strong institutional structures. Others placed emphasis on gender in policymaking, ethical policymaking and corruption. One speaker highlighted the problem of the dumping of used vehicles and equipment and another called for measures to stop occupying authorities from dumping chemical wastes and building chemical production facilities in the territories that they occupied.
- 20. The moderator then opened the floor for general discussion and comments, with responses from the panellists.
- 21. In the ensuing discussion many representatives spoke of a need for cooperation and coordination between all stakeholders at all levels. One panellist said that the fact that a number of countries did not produce toxic chemicals but still used them, for example in the case of fertilizers and pesticides to increase food security, was itself an argument for cooperation, including between chemical producers and end users. Another panellist spoke of a need for cooperation among entities at the national level, for example between different ministries, to facilitate coherent national action. She also said that the concept of a circular economy implied the need for all stakeholders to work together at the regional level in order to share best practices and identify opportunities and benefits, while maintaining connectivity with issues at the global and national levels.
- 22. Several representatives spoke of the scale of the challenge of managing chemicals and wastes in a sound and sustainable manner. One representative said that least developed countries were particularly vulnerable because they lacked the necessary infrastructure; the question was how to articulate action at the global, regional and national levels to provide effective solutions to the problems facing those countries. In response, a panellist said that the common agreement on waste management of the Central African Economic and Monetary Community served as an example of how cross-border alignment of regulatory measures could facilitate the management of wastes at the regional or subregional level. Another panellist said that controlling cross-border trade in hazardous substances was more difficult when there were disparities in the relevant regulations of neighbouring countries. One representative said that regional centres had a role to play in sharing good regulatory and policy practices among the countries of their regions. Another representative expressed concern at the lack of progress made in dealing with certain hazardous chemicals at successive meetings of the conferences of the Parties to the Rotterdam and Stockholm conventions. Another representative said

that it was important to promote awareness-raising and education, including in schools and the media, in order to disseminate the messages of the Basel, Rotterdam and Stockholm conventions.

- 23. Several representatives spoke of the importance of gender in the sound management of chemicals and wastes. One panellist said that insufficient attention was given to the exposure and vulnerability of women in the mining sector, for example when fetching contaminated water. Another panellist said that it was important to build the capacity of women and raise awareness of gender issues so that more women filled positions of responsibility. Another panellist said that the matter of gender should be strongly institutionalized, for example in national constitutions or through the establishment of gender commissions and clear gender-inclusive policies. Another panellist said that there was a tendency to focus on the vulnerability of women rather than on the strong roles they played in many sections of society. Another panellist said that gender concerned not only the role of women but also the interaction of both sexes, including with regard to their roles at the household and community levels, for example in the area of hazardous waste management in the home. Another panellist said that as gender equality was one of the Sustainable Development Goals (Goal 5) the gender dimension should be included in chemicals and waste management planning given the indivisibility of all the Sustainable Development Goals.
- Several participants said that developing countries would need financial, technical and other assistance to realize their goals with regard to the sound management of chemicals and waste. One panellist said that there was a danger of funding bias, whereby donors funded larger, more regionally prominent countries or blocs of countries rather than States that were smaller but just as in need. Another panellist said that fiscal measures could be utilized to ensure that funds were levied for environment-related programmes and to support capacity-building and awareness raising. One panellist said that efforts should be made to streamline the often cumbersome processes by which international financing was made available and to provide training to countries in the design of bankable projects, while another panellist highlighted the difficulties that developing countries often faced in aligning their project needs with donor requirements. Another panellist drew attention to the relationship between financial resources and compliance, stating that while there was general political will for compliance with the objectives of the Basel, Rotterdam and Stockholm conventions, funding mechanisms were often inadequate to generate the necessary financing. Another panellist said that policy coherence was important to facilitate financing and that there was a need for donor and recipient countries to agree on such matters as the polluter pays principle, climate neutrality and waste reduction.
- 25. Following the discussion the moderator thanked the panellists and other participants for their contributions to what she said was a rich and interesting discussion.
- 26. At the conclusion of the interactive discussion, Mr. Rolph Payet, Executive Secretary of the Basel, Rotterdam and Stockholm Conventions, presented a consolidation of the key messages that emerged from the round-table discussions, which summarized the outcomes of the high-level segment. The key messages are set out in appendix II to the present report.

III. Closure of the high-level segment

27. Closing the high-level segment, Mr. Chardonnens said that the valuable ideas and global perspectives that had informed the discussions and the resulting key messages demonstrated the strength of the multilateral approach and the importance of concerted action to address challenges in an efficient and effective manner. The 2030 Agenda for Sustainable Development provided a unique opportunity for the mainstreaming of the chemicals and waste agenda, to which end he encouraged all stakeholders to continue what he described as sterling work towards the goal of protecting human health and the environment.

Appendix I

Composition of round tables

Round table 1

Moderator: Mr. Steven Stone (United Nations Environment Programme)

Ms. Jeanne Josette Acacha Akoha (Benin)

Mr. Batio Bassière (Burkina Faso)

Mr. Serge Karonkano (Burundi)

Mr. Gilberto Correia Carvalho Silva (Cabo Verde)

Mr. Pierre Hele (Cameroon)

Ms. Rosalie Matondo (Congo)

Mr. Patrick Mayombe-Mumbyoko (Democratic Republic of Congo)

Ms. Aya Thiam Diallo (Mali)

Round table 2

Moderator: Ms. Katharina Kummer (World Health Organization)

Mr. Apolinário Jorge Correia (Angola)

Ms. Arlette Sombo-Dibele (Central African Republic)

Ms. Anne Désirée Ouloto (Cote d'Ivoire)

Ms. Chantal Abengdang Mebaley (Gabon)

Mr. Antonio Serifo Embalo (Guinea-Bissau)

Ms. Benedicte Johanita Ndahimananjara (Madagascar)

Mr. Almoustapha Garba (Niger)

Round table 3

Moderator: Mr. Achim Halpaap (United Nations Environment Programme)

Ms. Khomoatsana Tau (Lesotho)

Mr. Samura M.W. Kamara (Sierra Leone)

Ms. Barbara Thomson (South Africa)

Mr. Christopher Gamedze (Swaziland)

Mr. Sam Cheptoris (Uganda)

Mr. Lloyd Mulenga Kaziya (Zambia)

Ms. O.C.Z. Muchinguri (Zimbabwe)

Round table 4

Moderator: Ms. Monika Linn (Economic Commission for Europe)

Mr. Kare Chawicha Debessa (Ethiopia)

Mr. Kwabena Frimpong-Boateng (Ghana)

Mr. Abdulla Ziyad (Maldives)

Mr. Ibrahim Usman Jibril (Nigeria)

Mr. Etienne Didier Dogley (Seychelles)

Round table 5

Moderator: Mr. Habib N. El-Habr (United Nations Environment Programme)

Mr. Abdul Wali Modaqiq (Afghanistan)

Mr. Mohamed Bindaina (Bharain)

Mr. Khaled Mohamed Fahmy Abdelall (Egypt)

Ms. Saja Majali (Jordan)

Ms. Adalah Atira (State of Palestine)

Mr. Mustafa Osman Ismail Elamin (Sudan)

Mr. Per Ängquist (Sweden)

Mr. Mehmet Ceylan (Turkey)

Mr. Thani bin Ahmed Al Zeyoudi (United Arab Emirates)

Round table 6

Moderator: Mr. Andrey Vasilyev (Economic Commission for Europe)

Mr. Ado Lõhmus (Estonia)

Mr. Gani Sadibekov (Kazakhstan)

Mr. Mindaugas Gudas (Lithuania)

Ms. Carole Dieschbourg (Luxembourg)

Mr. Marek Haliniak (Poland)

Mr. Sergey Kraevoy (Russian Federation)

Ms. Stana Bozovic (Serbia)

Mr. Marc Henri Bruno Chardonnens (Switzerland)

Round table 7

Moderator: Mr. Stephan Sicars (United Nations Industrial Development Organization)

Mr. Abdullah Al Islam Jakob (Bangladesh)

Mr. Gigla Agulashvili (Georgia)

Mr. Noel Holder (Guyana)

Ms. Bounkham Vorachit (Lao People's Democratic Republic)

Mr. Ohn Winn (Myanmar)

Mr. Jay Dev Joshi (Nepal)

Mr. Mykola Kuzyo (Ukraine)

Round table 8

Moderator: Ms. María Neira (World Health Organization)

Mr. Javier Ureta Sáenz Peña (Argentina)

Ms. Cynthia Silva Maturana (Bolivia, Plurinational State of)

Mr. Jair Tannus Junior (Brazil)

Ms. Irene Cañas (Costa Rica)

Mr. Walter Francisco Garcia Cedeño (Ecuador)

Mr. Santiago Francisco Engonga Osono (Equatorial Guinea)

Mr. Sydney Alexander Samuels Milson (Guatemala)

Mr. Carlos Pineda Fasquelle (Honduras)

Mr. Edgardo Alberto Villalobos Jaen (Panama)

Mr. Marcos Gabriel Alegre Chang (Peru)

Mr. Jesus Castillo (Venezuela, Bolivarian Republic of)

Round table 9

Moderator: Mr. Nikhil Seth (United Nations Institute for Training and Research)

Mr. Omar Figueroa (Belize)

Mr. Ty Sokhun (Cambodia)

Mr. Ajay Narayan Jha (India)

Ms. Tuti Hendrawati Mintarsih (Indonesia)

Mr. Shigemoto Kajihara (Japan)

Mr. Joseph Caruana (Malta)

Mr. Singappuli Achchige Don Susil Premajayantha (Sri Lanka)

Mr. Surasak Karnjanarat (Thailand)

Mr. Siaosi Sovaleni (Tonga)

Round table 10

Moderator: Mr. Cosmas L. Zavazava (International Telecommunication Union)

Mr. Yury Ambrazevich (Belarus)

Ms. Beatriz Londoño Soto (Colombia)

Mr. Tae Song Han (Democratic People's Republic of Korea)

Ms. Kadra Ahmed Hassan (Djibouti)

Mr. Wayne McCook (Jamaica)

Mr. Israhyananda Dhalladoo (Mauritius)

Round table 11

Moderator: Ms. Maria Luisa Silva (United Nations Development Programme)

Ms. Lucija Ljubic Lepine (Bosnia and Herzegovina)

Ms. Sundus Al-Bayraqdar (Iraq)

Mr. Janis Karklinš (Latvia)

Mr. Ernest Makawa (Malawi)

Mr. Robert Dufter Salama (Malawi)

Ms. Amatlain Elizabeth Kabua (Marshall Islands)

Mr. Milorad Scepanovic (Montenegro)

Round table 12

Moderator: Mr. Tim Kasten (United Nations Environment Programme)

Mr. Abdulla Nasser Al Rahbi (Oman)

Mr. Farukh Akhter Amil (Pakistan)

Mr. Ahmad Al-Sada (Qatar)

Mr. Kyong-Lim Choi (Republic of Korea)

Ms. Elena Dumitru (Romania)

Mr. François Xavier Ngarambe (Rwanda)

Mr. Yackoley Kokou Johnson (Togo)

Mr. Chi Dung Duong (Viet Nam)

Mr. Ali Mohamed Saeed Majawar (Yemen)

Resource persons

Ms. Maria Helena Semedo (Food and Agriculture Organization)

Mr. Ross Bartley (Bureau of International Recycling)

Mr. David Azoulay (Center for International Environmental Law)

Mr. Klaus Kunz (CropLife International)

Ms. Pamela Miller (International POPs Elimination Network)

Ms. Meriel Watts (Pesticide Action Network Asia Pacific)

Ms. Sascha Gabizon (Women Engage for a Common Future International)

Appendix II

Key messages emerging from the high-level segment of the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions

Overall messages

- 1. With the adoption of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals the political momentum for a detoxified planet has increased. This opportunity must be seized.
- 2. There can be no sustainable development without a commitment to a pollution-free planet, and that requires the sound management of chemicals and waste.
- 3. The key to a detoxified future is to take action now, including through the implementation by all Parties of all the provisions of the Basel, Rotterdam and Stockholm conventions, which should be translated into national legislation, policy and actions.

On opportunities for a detoxified future in the 2030 Agenda for Sustainable Development

- 4. The sound management of chemicals and wastes is central to achieving the three dimensions of sustainable development and should be dealt with as a priority in a mutually supportive way to achieve the 2030 goals. It is also central to addressing poverty, food security, access to water, human rights and gender issues, particularly for women, children and vulnerable populations, and is linked to addressing climate change and the protection of biodiversity. With the obvious link between the Sustainable Development Goals and the Basel, Rotterdam and Stockholm conventions, and the many cross-sectoral aspects of that link, the chemicals and wastes-related Sustainable Development Goals cannot be achieved unless the conventions are implemented effectively.
- 5. The 2030 Agenda provides a unique opportunity for mainstreaming chemicals and wastes-related issues into national sustainable development plans and for the development of business cases for the sound management of chemicals and wastes. Institutional frameworks at all levels and policy coherence across all sectors must be strengthened. This requires strong political will, cooperation and community and end-user awareness, as well as partnerships at all levels.
- 6. Furthermore, the 2030 Agenda provides specific targets that support commitment to the sound management of chemicals and wastes in order to protect human health and the environment. The importance of increasing efforts to achieve the Sustainable Development Goals through a focus on poverty reduction strategies recognizing that the poor are the most affected by pollution, including through the extensive use of chemicals in agriculture, is clear.
- 7. There is a need for greater commitment by industry to prevent the pollution of streams and other water bodies that are depended upon by communities, especially those in abject poverty. Industry must play a more proactive role in achieving the Sustainable Development Goals.
- 8. Different levels of development and differing country capacities to address the challenges of chemicals and waste management must be recognized, particularly in small island developing States, least developed countries and vulnerable populations that have limited capacity or access to information necessary to deal with environmental challenges.

On opportunities for strengthened implementation through partnerships

- 9. Increased cooperation and coordination is needed at the national, regional and global levels to implement the conventions effectively. Partnerships have a central role and civil society, business, industry and private sector investment must be fully engaged.
- 10. Partnerships have proved to be useful tools in the implementation of the chemicals and waste agendas and should be further encouraged. Multi-stakeholder partnerships, including those involving the private sector, should be strengthened to promote new technologies, win-win partnerships and innovation in support of the implementation of the conventions.

- 11. Partnerships must be established with all sectors and stakeholders, including with local communities and municipal entities. A bottom-up approach is essential because citizens are the key driver for action. Regional networks can assist in monitoring and managing cross-border issues and civil society groups can help Governments monitor the environment.
- 12. The Basel and Stockholm convention regional centres are uniquely positioned to deliver synergistically on chemicals and wastes by engaging in capacity-building and catalysing the transfer of technology for the sound management of chemicals and waste at the national level.
- 13. Availability of, and access to, adequate financial resources are fundamental to ensuring the restoration of our oceans and landscapes from chemical pollution and for the adequate implementation of the chemicals and wastes agenda within the framework of the Sustainable Development Goals.

On opportunities for reducing waste and pollution while enabling economic and social prosperity

- 14. Although there has been much progress, further efforts through the Basel, Rotterdam and Stockholm conventions are needed to achieve the sound management of chemicals throughout their life cycles and to prevent or minimize significant adverse effects of hazardous wastes on human health and the environment.
- 15. Commitment to, and the conscientious implementation of, the chemicals and wastes conventions contributes to the achievement of the environmentally sound management of chemicals and the reduction of illegal traffic in waste and cross-border pollution, thus facilitating economic and social prosperity.
- 16. Raising awareness of the interlinkages between the Basel, Rotterdam and Stockholm conventions and issues such as air pollution, plastic pollution and marine litter increases the visibility of chemicals and wastes issues in a consistent manner to stakeholders, the media and schools, thereby enhancing the conventions' contributions to the achievement of the Sustainable Development Goals and the protection of human health and the environment.
- 17. Adequate technology transfer is essential to address sustainable development in fields such as agriculture, recycling, household and medical waste management, as are training and capacity-building in the management of chemicals and waste throughout their life cycles. Legislation and control techniques should be in place in all sectors; currently there is limited enforcement even where relevant regulations exist.
- 18. Lack of financial resources, as well as limited institutional capacity, are legitimate concerns that require attention. Further scientific research is also needed in developing countries along with associated funding, including for national coordinating units, laboratories and strengthening research institutes to enhance their ability to develop new technologies for chemicals and wastes management, to establish baseline data, to develop viable alternatives, to promote science-based decisions and to enhance monitoring capacity and database management skills needed to monitor progress in the achievement of the Sustainable Development Goals and related targets.
- 19. Mechanisms such as economic and policy incentives and disincentives should be established to implement the polluter pays principle, taking into consideration the specific situation of each country.
- 20. Formalization of the informal recycling sector is fundamental to the creation of decent jobs and the reduction of legal and occupational risks and environmental impacts. There is a large potential for recycling to have positive economic impacts in developing countries. Related activities must be facilitated by strong regulatory frameworks and technical expertise to ensure that wastes destined for use as resources do not have an adverse impact on human health and the environment.
- 21. Concepts such as the circular economy and the green economy provide opportunities for developing countries to reduce waste and pollution while enabling economic and social prosperity; they do, however, require behavioural and cultural adaptations.
- 22. Industry should be encouraged to develop chemicals and products based upon green and sustainable chemistry principles taking into account the precautionary principle, in particular in the case where persistence, bioaccumulation and long range transport are of concern, in order to prevent further damage to human health and the environment.

Annex III

Revised template for the certification for exports to a non-Party pursuant to paragraph 2 (b) (iii) of Article 3

ANNUAL CERTIFICATION OF INTENDED USE AND COMMITMENT FOR THE EXPORT OF CHEMICALS LISTED IN ANNEXES A OR B TO THE STOCKHOLM CONVENTION ON PERSISTENT ORGANIC POLLUTANTS

- 1. Pursuant to paragraph 2 (b) (iii) of Article 3 of the Stockholm Convention on Persistent Organic Pollutants, each Party shall take measures to ensure that "a chemical listed in Annex A for which any production or use specific exemption is in effect or a chemical listed in Annex B for which any production or use specific exemption or acceptable purpose is in effect, taking into account any relevant provisions in existing international prior informed consent instruments, is exported only" to, among others, "a State not Party to this Convention which has provided an annual certification to the exporting Party."
- 2. Such certification shall specify the intended use of the chemical and include a statement that, with respect to that chemical, the importing State is committed to:
- (a) Protect human health and the environment by taking the necessary measures to minimize or prevent releases;
 - (b) Comply with the provisions of paragraph 1 of Article 6; and
 - (c) Comply, where appropriate, with the provisions of paragraph 2 of Part II of Annex B.

The certification shall also include any appropriate supporting documentation such as legislation, regulatory instruments or administrative or policy guidelines.

- 3. The exporting Party receiving a certification from a State not Party to this Convention shall transmit the certification to the Secretariat within sixty days of receipt.
- 4. Pursuant to paragraph 2 (d) of Article 3, for the purpose of paragraph 2, the term "State not Party to this Convention" shall include, with respect to a particular chemical, a State or regional economic integration organization that has not agreed to be bound by the Convention with respect to that chemical.

SECTION I: IDENTIFICATION OF THE EXPORTING PARTY

1. Name and address of the authority of the exporting Party		
Institution		
Address		
Name of the contact point		
Telephone		
Fax		
E-mail		
Signature		
Date when the certification was received (DD/MM/YYYY)		

SECTION II: IDENTIFICATION OF THE IMPORTING STATE

1. Name and address of the authority of the importing State	
Institution	
Address	
Name of the contact point	
Telephone	
Fax	
E-mail	
Signature	
Date (DD/MM/YYYY)	

SECTION III: IDENTIFICATION OF THE IMPORTED CHEMICAL

Name and CAS No. of the imported chemical*	Name of the chemical
	CAS No.
*If the chemical is imported in the form of a preparation, please provide the name of the preparation, the name of the chemical	Name of the preparation
and the concentration as a percentage (%)	Name of the chemical
	Concentration of the chemical in the preparation (%)
*If the chemical is imported in the form of a related substance, please specify the name of the chemical and its CAS No.	Name of the chemical
	CAS No.

SECTION IV: INTENDED USE OF THE CHEMICAL

Intended use	
(1) Is the imported chemical intended to be used for any specific exemption or acceptable purpose in effect under the Stockholm Convention? ⁹³	☐ Yes ☐ No
(2) If yes, please specify the intended use of the imported chemical	
For additional information on the specific exemptions or acceptable purposes in effect under the Convention, please consult:	
The Register of Specific Exemptions at: http://chm.pops.int/Implementation/Exemptions/ RegisterofSpecificExemptions/tabid/1133/Default.aspx	
The Acceptable Purpose Registers at: http://chm.pops.int/Implementation/Exemptions/ AcceptablePurposesDDT/tabid/456/Default.aspx and; http://chm.pops.int/Implementation/Exemptions/ AcceptablePurposesPFOSandPFOSF/tabid/794/Default.aspx	

SECTION V: COMMITMENT

1. Commitment to protect human health and the environment by taking the necessary				
measures to minimize or prevent releases				
(1) Does your country commit itself to taking the necessary				
measures to minimize or prevent releases of the imported				
chemical in order to protect human health and the environment?				
(2) Please describe the measures to be taken and provide any				
appropriate supporting documentation such as legislation,				
regulatory instruments or administrative or policy guidelines.				
F				
2. Commitment to comply with the provisions of paragraph 1 of Article 6 of the Convention				
(1) Does your country commit itself to complying with the	□ Yes □ No			
provisions of paragraph 1 of Article 6 of the Convention				
regarding the imported chemical?				
(2) Please provide information on the current status of the				
following and provide any appropriate supporting				
documentation such as legislation, regulatory instruments or				
administrative or policy guidelines:				

⁹³ If the chemical is imported for the purpose of environmentally sound disposal, Article 6 of the Convention applies, in particular subparagraph 1 (d) which requires that wastes consisting of or containing persistent organic pollutants not be transported across international boundaries without taking into account relevant international rules, standards and guidelines.

 (a) Development of appropriate strategies for identifying (i) stockpiles consisting of or containing the chemical; and (ii) products and articles in use and wastes consisting of, containing or contaminated with the chemical 				
(b) Identification of stockpiles consisting of or containing the chemical, to the extent practicable, on the basis of the strategies referred to in (a) above				
(c) Management of stockpiles, as appropriate, in a safe, efficient and environmentally sound manner				
(d) Taking of appropriate measures so that wastes consisting of, containing or contaminated with the chemical, including products and articles upon becoming wastes, are:				
Handled, collected, transported and stored in an environmentally sound manner				
(ii) Disposed of in such a way that their persistent organic pollutant content is destroyed or irreversibly transformed so that the wastes do not exhibit the characteristics of persistent organic pollutants or otherwise disposed of in an environmentally sound manner when destruction or irreversible transformation does not represent the environmentally preferable option or the persistent organic pollutant content is low, taking into account international rules, standards and guidelines, including those that may be developed pursuant to paragraph 2 of Article 6 of the Convention, and relevant global and regional regimes governing the management of hazardous wastes (iii) Not permitted to be subjected to disposal				
operations that may lead to recovery, recycling, reclamation, direct reuse or alternative uses of persistent organic pollutants				
(iv) Not transported across international boundaries without taking into account relevant international rules, standards and guidelines				
(e) Development of appropriate strategies for identifying sites contaminated by the chemicals				
3. Commitment to comply, where appropriate, with the provisions of paragraph 2 of Part II of Annex B				
(1) If the imported chemical is DDT, does your country commit itself to restricting the production and use of DDT for disease vector control in accordance with the World Health Organization recommendations and guidelines on the use of DDT and when locally safe, effective and affordable alternatives are not available in your country?	□ Yes □ No			
(2) Where appropriate, please provide any supporting documentation such as legislation, regulatory instruments or administrative or policy guidelines.				

2. Commitment to comply with the provisions of paragraph 1 of Article 6 of the Convention











Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

Distr.: General 18 July 2017

Original: English

Conference of the Parties to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade Eighth meeting Geneva, 24 April–5 May 2017

> Report of the Conference of the Parties to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade on the work of its eighth meeting

Introduction

1. By decisions BC-12/23, RC-7/13 and SC-7/31, the conferences of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants, respectively, decided to hold the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention back to back from 24 April to 5 May 2017 (hereinafter, "the 2017 meetings"). The conferences of the Parties also decided that their 2017 meetings would "include joint sessions, where appropriate, on joint issues" and would feature a high-level segment of no more than one day's duration.

I. Opening of the meetings (agenda item 1)

- 2. Ms. Abiola Olanipekun, Chief, Scientific Support Branch of the Secretariat, acting as master of ceremonies, welcomed participants to the 2017 meetings.
- 3. The meetings began with a performance of Swiss yodelling.

A. Opening remarks

- 4. Opening remarks were made by Mr. Mohammed Oglah Hussein Khashashneh (Jordan), President of the Conference of the Parties to the Basel Convention, speaking also on behalf of Mr. Franz Perrez (Switzerland), President of the Conference of the Parties to the Rotterdam Convention, and Mr. Sam Adu-Kumi (Ghana), President of the Conference of the Parties to the Stockholm Convention; Mr. Rolph Payet, Executive Secretary of the Basel, Rotterdam and Stockholm conventions; Mr. Bill Murray, Executive Secretary of the Rotterdam Convention; Mr. Marc Chardonnens, State Secretary, Swiss Federal Office for the Environment; and Mr. Ibrahim Thiaw, Deputy Executive Director, United Nations Environment Programme (UNEP).
- 5. In his remarks Mr. Khashashneh said that positive outcomes from the current meetings would be vital to addressing the enormous challenges faced by the world, which were exemplified by the figures showing the small fraction of chemicals that had undergone environmental assessments and the

statistics on deaths from pesticide poisoning, particularly in developing countries, and on deaths among children under five years of age as a result of unhealthy environments and, notably, the effects of pollution. Progress in preventing and minimizing waste generation had been achieved through the approach, plans and guidelines developed and implemented under the Basel Convention, demonstrating the benefits of cooperation with its sister chemical conventions and indeed its status as a model to be emulated with regard to implementation and compliance. As to the Rotterdam Convention, it was crucial to increase its effectiveness because chemicals meeting the requirements for listing in Annex III to the Convention were sometimes not listed. More determined efforts must also be made to enhance implementation of the Stockholm Convention through elimination of the chemicals listed thereunder. Concerning the review of the synergies arrangements, it showed that the synergies process had provided a model for policy consistency among the three conventions, particularly with regard to the life cycle of chemicals and wastes, and had achieved efficiencies in the implementation of the conventions. While national and regional synergies continued to need improvement, synergies at the international level had been remarkably successful, which might be seen as evidence supporting the inclusion of the Minamata Convention on Mercury in the same framework as the Basel, Rotterdam and Stockholm conventions.

- 6. In his remarks, Mr. Payet said that the outcomes of the 2017 meetings of the conferences of the Parties would be crucial to tackling the nexus between development and planetary health and, hence, to improving the quality of life in a sustainable environment. He had been encouraged by the spirit of commitment that had characterized the regional preparatory meetings organized with the support of the Government of Switzerland. The relevance of the three conventions to sustainable development and poverty eradication had been recognized in the 2030 Agenda for Sustainable Development, in several key decisions and resolutions adopted since the 2015 meetings by, among others, the International Conference on Chemicals Management, the United Nations Environment Assembly and the World Health Assembly, and in a report of the United Nations Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes. In addition, some of the fruits of private sector commitment to engage with Governments in seeking sustainable solutions would be showcased at the current meetings, at the first ever technology fair.
- 7. Urging the Parties to address the continued decrease in voluntary contributions to the conventions and the increase in arrears in assessed contributions for the core funding of the Secretariat, he thanked those donors that had remained strongly committed to supporting the conventions such as Australia, China, Denmark, the European Union, Finland, France, Germany, Japan, the Netherlands, Norway, the Republic of Moldova, Sweden and Switzerland. He also commended the Global Environment Facility (GEF) and its implementing agencies on making available the financial resources and technical expertise needed for updating national implementation plans and for the implementation of the Stockholm Convention, which, according to the needs assessment report to be considered by the Conference of the Parties, would require over \$4.3 billion for the period 2018–2022. He urged the GEF secretariat and donor countries to take into consideration the recommendations of the report when negotiating the seventh replenishment of the GEF trust fund.
- Mr. Murray, in his remarks, drew attention to the major impacts that agriculture had on the state of the environment and vice versa. While the projected increase in the world's population to 9.2 billion by 2050 would, he said, require a 50 per cent increase in global food production, some 80 per cent of it from land already under cultivation, the input-intensive approach of the past had proved unsustainable in view of its deleterious effects on natural resources and biodiversity. Meanwhile, many millions around the globe were currently facing extreme hunger and most of the worst affected depended directly or indirectly on agriculture for their livelihoods and were at the greatest risk from the adverse effects of climate change and hazardous pesticides, chemicals and wastes. The 2030 Agenda for Sustainable Development and the Paris Agreement on climate change, among other things, had placed food security and agriculture at the centre of the global development agenda but there was no standard solution. Successful approaches must be context-specific and tailored to the needs of particular regions or communities, drawing on traditional knowledge and advances in science and technology, which required greater cooperation and collaboration at all levels, as in the case of the synergies between the secretariats of the Basel, Rotterdam and Stockholm conventions, the results of which would be discussed in the coming days. Recalling the role of the Food and Agriculture Organization of the United Nations (FAO) in capacity development and institution building for national governance frameworks that reduced the risks to human health and the environment from pesticides and associated wastes while facilitating regional collaboration, he said that the technology fair and side events at the current meetings would provide opportunities to learn about partnerships and to share knowledge and experience in promoting the sound management of chemicals and wastes and a detoxified future.

- 9. Mr. Chardonnens, in his remarks, welcomed the participants to the 2017 meetings in the city of Geneva, which had a long history of hosting those championing the protection of nature and hoped to be home not only to the Secretariat of the Basel, Rotterdam and Stockholm conventions but also that of the Minamata Convention. The multilateral system, he said, had to adjust to meet the many new challenges arising from the large-scale production and use of chemicals so as to ensure global governance frameworks that were more effective in protecting human health and the environment. To that end, the 2017 meetings offered an excellent opportunity to improve the effectiveness of the Basel, Rotterdam and Stockholm conventions through, among other things, the adoption of compliance mechanisms and decisions on the listing of hazardous chemicals and to strengthen the synergies between them. They also offered the opportunity to pave the way for additional synergies with the Minamata Convention, which could contribute to a more coherent effort by the international community to ensure the sound management and use of resources. Commending the Secretariat and the presidents of the three conferences of the Parties to the conventions on organizing the 2017 meetings, and expressing appreciation to UNEP and FAO for their support in furthering implementation, he called on the Parties, civil society and industry to support the multilateral processes in the intensive work of the coming two weeks. Given that communication over borders was important and fruitful, as evidenced by the prior informed consent procedure, he invited all participants to send the available postcards home to colleagues, friends and family to report about the meetings and their time in Geneva.
- 10. In his remarks, Mr. Thiaw said that, in contrast to their predecessors, young people lived in a heavily polluted world in which the prospect of enjoying safe air and water in the future seemed remote. The humans that were destroying the planet through pollution were not doing enough to prevent the millions of pollution-related deaths, in which chemicals played a significant part. Chemicals unquestionably improved lives but their use across the planet was outpacing the efforts to assess and address their impact on humans, wildlife and the entire food chain. Swift action was needed yet the process was slow and difficult. The existence of irrefutable scientific data placed a moral responsibility on all stakeholders to act where doubt existed. To that end, a rethink in the life-cycle approach to chemicals and adaptation to react to new findings must be triggered, including by working in various ways with Governments, scientists, the private sector, schools and the general public. The power of concerted action had been proven with the Montreal Protocol on Substances that Deplete the Ozone Layer, as had the importance of precautionary action, which could furthermore generate profit through the increasing demand for true life-cycle alternatives and renewable energy, mobile technology and electric transport. The Basel, Rotterdam and Stockholm conventions provided a crucial opportunity for taking the collective action needed to phase out some of the world's worst pollutants. That opportunity to achieve the sound management of chemicals by 2020, add important new chemicals to the conventions and accomplish global progress must therefore be seized immediately to avoid regret later.

B. Regional statements

11. Representatives speaking on behalf of groups of countries and individual countries made general statements on the issues to be discussed during the meetings.

C. Formal opening

12. The thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention were formally opened at 11.45 a.m. on 24 April 2017 by Mr. Khashashneh, Mr. Perrez, and Mr. Adu-Kumi, respectively.

II. Adoption of the agenda (agenda item 2)

- 13. The Conference of the Parties to the Rotterdam Convention adopted the following agenda for its eighth meeting on the basis of the provisional agenda set out in document UNEP/FAO/RC/COP.8/1:
 - 1. Opening of the meeting.
 - 2. Adoption of the agenda.
 - 3. Organizational matters:
 - (a) Election of officers;
 - (b) Organization of work;

- (c) Report on the credentials of representatives to the eighth meeting of the Conference of the Parties.
- 4. Rules of procedure for the Conference of the Parties.
- 5. Matters related to the implementation of the Convention:
 - (a) Status of implementation;
 - (b) Listing of chemicals in Annex III to the Convention;
 - (i) Consideration of chemicals for inclusion in Annex III;
 - (ii) Intersessional work on the process of listing chemicals in Annex III;
 - (c) Compliance;
 - (d) Technical assistance;
 - (e) Financial resources;
 - (f) International cooperation and coordination.
- Enhancing cooperation and coordination among the Basel, Rotterdam and Stockholm conventions.
- 7. Programme of work and budget.
- 8. Venue and date of the ninth meeting of the Conference of the Parties.
- 9. Other matters.
- 10. Adoption of the report.
- 11. Closure of the meeting.
- 14. In adopting its agenda the Conference of the Parties agreed to discuss under item 9, Other matters, a possible memorandum of understanding between UNEP, FAO and the Conference of the Parties to the Rotterdam Convention, the admission of observers to meetings under the Convention and guidelines on conduct for meeting participants.
- 15. During the discussion of the agendas for the 2017 meetings one representative, speaking on behalf of a group of countries, said that the matter of memorandums of understanding should be set out as separate items on the agendas for the three meetings rather than be discussed under the agenda items for "other matters". He said that the issue had been brought up at previous meetings of the conferences of the Parties and that the Conference of the Parties to the Rotterdam Convention, as reflected in its decisions RC-6/15 and RC-7/14, adopted in 2013 and 2015, had already decided twice that such a memorandum of understanding would be necessary. Given the importance of the issue, it should be presented as a separate agenda item. One representative supported the proposal, but others opposed it. It was agreed that the matter would remain under other matters and that the proposal to list it as a separate item would be noted in the reports of the 2017 meetings.

III. Organizational matters (agenda item 3)

A. Attendance

The meeting was attended by representatives of the following 144 Parties: Afghanistan, Albania, Antigua and Barbuda, Argentina, Armenia, Australia, Austria, Bahrain, Belgium, Belize, Benin, Bolivia (Plurinational State of), Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Burkina Faso, Burundi, Cabo Verde, Cambodia, Cameroon, Canada, Chad, Chile, China, Colombia, Congo, Cook Islands, Costa Rica, Côte d'Ivoire, Croatia, Cuba, Cyprus, Czechia, Democratic People's Republic of Korea, Democratic Republic of the Congo, Denmark, Dominican Republic, Ecuador, El Salvador, Estonia, Ethiopia, European Union, Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Greece, Guatemala, Guinea, Guinea-Bissau, Guyana, Honduras, Hungary, India, Indonesia, Iran (Islamic Republic of), Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Lao People's Democratic Republic, Latvia, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Madagascar, Malawi, Maldives, Mali, Malta, Marshall Islands, Mauritania, Mauritius, Mexico, Mongolia, Montenegro, Morocco, Mozambique, Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Qatar, Republic of Korea, Republic of Moldova, Romania, Russian Federation, Saint Kitts and Nevis, Samoa, Sao Tome and Principe, Saudi Arabia, Senegal, Serbia, Sierra Leone, Singapore, Slovakia, South Africa, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Switzerland, Syrian Arab Republic,

Thailand, The former Yugoslav Republic of Macedonia, Togo, Tonga, Trinidad and Tobago, Tunisia, Uganda, Ukraine, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, United Republic of Tanzania, Uruguay, Venezuela (Bolivarian Republic of), Viet Nam, Yemen, Zambia, Zimbabwe.

- 17. In addition, the meeting was attended by representatives of seven Parties that did not submit valid credentials: Djibouti, Equatorial Guinea, Kyrgyzstan, Lebanon, Malaysia, Rwanda, Suriname. It was also attended by representatives of two States that were not Parties to the Convention: the Holy See and the United States of America.
- 18. The following United Nations bodies and specialized agencies were represented as observers: Economic Commission for Europe, Food and Agriculture Organization of the United Nations, Global Environment Facility, International Labour Organization, United Nations Development Programme, United Nations Environment Programme, United Nations Industrial Development Organization, United Nations Institute for Training and Research, United Nations University, the World Bank Group, World Health Organization.
- 19. The following intergovernmental organizations were represented as observers: Association of Southeast Asian Nations, League of Arab States, South Asia Cooperative Environment Programme, South Centre, World Trade Organization.
- 20. A number of non-governmental organizations were represented as observers. The names of those organizations are included in the list of participants (UNEP/CHW.13/INF/70-UNEP/FAO/RC/COP.8/INF/53-UNEP/POPS/COP.8/INF/66).

B. Election of officers

- 21. Introducing the sub-item, the President noted that the Parties would need to elect the officers of the three conferences of the Parties whose terms of office would start at the closure of the 2017 meetings, as well as officers and members of subsidiary bodies. Continuing the introduction the representative of the Secretariat outlined the information in documents UNEP/CHW.13/2, UNEP/FAO/RC/COP.8/2 and UNEP/POPS/COP.8/2, noting, among other things, that curricula vitae should be provided for nominees for membership on the Chemical Review Committee of the Rotterdam Convention and the Persistent Organic Pollutants Review Committee of the Stockholm Convention.
- 22. Following that introduction one representative said that in the past there had been some flexibility regarding the provision of curriculum vitae and that they should not be required because each Party had the right to decide who would best represent it. The President said in response that it was up to each region to decide on its nominations and that the requirement to submit curricula vitae had been communicated at the regional meetings that had been held in preparation for the 2017 meetings.
- 23. In accordance with rule 22 of the rules of procedure, the following members of the Bureau elected at the seventh meeting of the Conference of the Parties to the Rotterdam Convention served during the eighth meeting of the Conference of the Parties:

President: Mr. Franz Perrez (Switzerland)
Vice-Presidents: Ms. Trecia David (Guyana)

Ms. Silvija Nora Kalniņš (Latvia)

Ms. Caroline Theka (Malawi)

- 24. Mr. Hassan Rahimi Majd (Islamic Republic of Iran), elected Vice-President at the seventh meeting of the Conference of the Parties and, pursuant to rule 22, to serve as Rapporteur, was unable to complete his term of office. Pursuant to rule 25, his compatriot, Mr. Mohammad Hematyar, served in his stead.
- 25. Also in accordance with rule 22, the Conference of the Parties elected the following members of the new Bureau, whose terms would commence upon the closure of the current meeting and terminate upon the closure of the next ordinary meeting of the Conference of the Parties:

President: Mr. Osvaldo Patricio Álvarez-Pérez (Chile)

Vice-Presidents: Mr. Nicolas Encausse (France)

Mr. Heidar Ali Balouji (Islamic Republic of Iran)

Ms. Suzana Andrejević Stefanović (Serbia)

Mr. Abderrazak Marzouki (Tunisia)

26. Ms. Stefanović was elected to serve as Rapporteur.

C. Organization of work

- 27. The discussion summarized in the present section, on organization of work (agenda item 3 (b)), took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 28–32 below are replicated in the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 30–34, and in the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), paragraphs 29–33.
- 28. The three conferences of the Parties agreed to conduct their meetings in accordance with the scenario note set out in document UNEP/CHW.13/INF/1-UNEP/FAO/RC/COP.8/INF/1-UNEP/POPS/COP.8/INF/1, the schedule set out in document UNEP/CHW.13/INF/2-UNEP/FAO/RC/COP.8/INF/2-UNEP/POPS/COP.8/INF/2 and the arrangements for the high-level segment described in document UNEP/CHW.13/INF/3-UNEP/FAO/RC/COP.8/INF/3-UNEP/POPS/COP.8/INF/3. The schedule and conduct of the meetings would be adjusted by the bureaux each day, as necessary, in the light of the progress of the meetings.
- 29. In accordance with the agreed arrangements, and as described in the scenario note, the conferences of the Parties to the three conventions would hold both joint and separate sessions during their meetings. During the joint sessions, the conferences of the Parties would discuss cross-cutting issues affecting at least two of the three conventions. In addition, the conferences of the Parties would establish such joint and separate contact and other groups as they deemed necessary for the various meetings, including a joint contact group on budget matters. All decisions would be adopted pending confirmation from the contact group on budget matters that any activities contemplated by the decisions had been taken into account in the proposed programmes of work and budgets for the biennium 2018–2019. The total number of contact groups meeting at any one time would be limited to facilitate participation by all delegations. The conferences of the Parties also agreed that the presidents of the three conferences would take it in turn to preside over joint sessions and that each, when so presiding, would act on behalf of all three.
- 30. A high-level segment of the meetings would be held on the afternoon of 4 May and the morning of 5 May. A ministerial dinner would take place on the evening of 4 May. A report on the high-level segment is set out in annex II to the present report.
- 31. In carrying out their work at the current meetings, the conferences of the Parties had before them working and information documents pertaining to the various items on the agendas for the meetings. Lists of those documents for the Basel, Rotterdam and Stockholm conventions, respectively, arranged according to the agenda items to which the documents pertain, are set out in information documents UNEP/CHW.13/INF/4, UNEP/FAO/RC/COP.8/INF/4 and UNEP/POPS/COP.8/INF/4, respectively.
- 32. During discussion of the organization of work one representative, speaking on behalf of a group of countries, expressed concern that there might not be sufficient time for careful consideration of all issues in plenary sessions. He also expressed concern with regard to the scheduling of a single session of the meeting of the Conference of the Parties to the Rotterdam Convention on Thursday, 27 April, with the remaining sessions of that meeting to take place the following week, saying that as had been previously agreed the meetings of the conferences of the Parties should be held back to back, i.e., one after the other. He concluded by voicing concern that some documents had been circulated late.

D. Credentials

33. The discussion summarized in the present section, on credentials (agenda item 3 (c)), took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the

eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 34–37 below are replicated in the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 36–39, and in the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), paragraphs 35–38.

- 34. Introducing the sub-item, the President said that during the period leading up to the 2017 meetings the bureaux of the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions had agreed to take the same common approach to their consideration of credentials for the current meetings as had been taken during the 2015 meetings of the conferences of the Parties to the three conventions. Pursuant to that approach each Bureau would accept original credentials in good order as well as copies, on the understanding that, in the case of the latter, originals would be submitted as soon as possible.
- 35. Continuing the introduction, the representative of the Secretariat outlined the requirements in respect of credentials set out in rule 18 of the rules of procedure of the Conference of the Parties to the Basel Convention, rule 19 of the rules of procedure of the Conference of the Parties to the Rotterdam Convention and rule 19 of the rules of procedure of the Conference of the Parties to the Stockholm Convention, saying that in accordance with those rules the bureaux of the Basel, Rotterdam and Stockholm conventions would examine the credentials of the representatives of the Parties present at the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention, respectively, and that each Bureau would present its report to its Conference of the Parties on the afternoon of Thursday, 4 May.
- 36. The President added that the three presidents were of the view that credentials were essential to multilateral environmental negotiations and served an important function that should be taken seriously. At the current meetings, he said, it would be important to have an early indication of possible problems with regard to credentials, and he therefore called on Parties to submit the credentials of their representatives by 1 p.m. on Wednesday, 26 April. Information on the status of credentials would be provided on Friday 28 April.
- 37. Also under the item it was announced that, as at the start of the 2017 meetings, there were 185 Parties to the Basel Convention, 157 Parties to the Rotterdam Convention and 181 Parties to the Stockholm Convention. At a later stage in the meetings, on the morning of 2 May 2017, it was announced that Turkey had recently ratified the Rotterdam Convention and would deposit its instrument of ratification in the near future.
- 38. On 28 April 2017 the representative of the Secretariat presented the report of the Bureau on the credentials of representatives as at noon on that day, indicating that the Bureau had examined the credentials of the representatives of the 148 Parties to the Rotterdam Convention that had registered for the meeting to date and had found that those of 138 had been issued by a Head of State or Government or a minister for foreign affairs and were therefore in good order. The credentials of 124 of those 138 representatives were originals, while 14 were copies that were accepted on the understanding that originals would be submitted as soon as possible.
- 39. It was also reported that the following 10 Parties had not submitted credentials for their representatives: Albania, Djibouti, Equatorial Guinea, Kyrgyzstan, Lebanon, Libya, Qatar, Rwanda, Suriname, United Arab Emirates. The Conference of the Parties adopted the report of the Bureau on credentials.
- 40. On the afternoon of 5 May 2017 the representative of the Secretariat presented the report of the Bureau on the credentials of representatives as at 1 p.m. on that day, indicating that the Bureau had further examined the credentials of the representatives of the 151 Parties to the Rotterdam Convention that had registered for the meeting to date and had found that those of 144 had been issued by a Head of State or Government or a minister for foreign affairs and were therefore in good order. The credentials of 133 of those 144 representatives were originals, while 11 were copies that were accepted on the understanding that originals would be submitted as soon as possible.
- 41. It was also reported that the following seven Parties had not submitted credentials for their representatives: Djibouti, Equatorial Guinea, Kyrgyzstan, Lebanon, Malaysia, Rwanda, Suriname. Those seven Parties were therefore participating as observers in the eighth meeting of the Conference of the Parties and would be recorded as such in the report of the meeting and list of participants.
- 42. The Conference of the Parties adopted the report of the Bureau on credentials, which superseded the report adopted on 28 April 2017.

IV. Rules of procedure for the Conference of the Parties (agenda item 4)

- 43. Introducing the item, the representative of the Secretariat recalled that at its first meeting the Conference of the Parties had adopted its rules of procedure, as set out in the annex to decision RC-1/1, in their entirety with the exception of the second sentence of paragraph 1 of rule 45. That sentence, which provided for the adoption of decisions on substantive matters by a two-thirds majority vote in the absence of consensus, had been enclosed in square brackets to indicate that it had not been adopted. At its second through seventh meetings the Conference of the Parties had considered the same issue and had agreed to defer adopting a formal decision on that matter.
- 44. As at previous meetings, the Conference of the Parties agreed that it would not adopt a formal decision on the item at the current meeting, that the square brackets around the second sentence of paragraph 1 of rule 45 would remain in place and that, until it decided otherwise, it would continue to decide substantive matters by consensus.

V. Matters related to the implementation of the Convention (agenda item 5)

A. Status of implementation

45. Introducing the sub-item, the President indicated that it comprised three parts: general issues related to the implementation of the Convention; proposals to increase the number of notifications of final regulatory action; and issues relevant to exports, export notifications and information exchange.

1. General issues related to the implementation of the Convention

- 46. The representative of the Secretariat introduced the matter, drawing attention to document UNEP/FAO/RC/COP.8/INF/6, which she said provided information on progress in the implementation of the Rotterdam Convention. She also noted that, beginning with the publication of volume 44 in December 2016, the PIC Circular referred readers to an online database providing up-to-date data on all import responses instead of providing such information in the Circular itself. A survey on the user-friendliness of the PIC Circular had generated 42 responses from 36 Parties, of which a majority appeared to be satisfied, while about a third had indicated a need for additional support from the Secretariat in the form of training and reminders. Finally, document UNEP/FAO/RC/COP.8/INF/7 provided a summary of Party responses to a questionnaire on definitions of the term "pesticides" circulated by the Secretariat as requested by the Conference of the Parties at its seventh meeting (UNEP/FAO/RC/COP.7/21, para. 47).
- 47. In the ensuing discussion one representative, speaking on behalf of a group of countries, encouraged all Parties to nominate their designated national authorities if they had not yet done so and to keep their contact details up to date, saying that they were essential for communications among Parties. He also encouraged Parties to submit import responses, saying that they were crucial for protection against unwanted imports of dangerous chemicals and that the Convention only provided protection for one year in the absence of an import response. Finally, noting the low level of response to the Secretariat's questionnaire on the definition of the term "pesticides" and stressing the importance of the issue to proper implementation of the Convention, he encouraged Parties who had not responded to the questionnaire to do so. Another representative described his country's efforts to implement the Convention and called for the creation of a mechanism under the Rotterdam and Stockholm conventions for the assessment of a country's success in implementing the conventions.
- 48. The representative of the European Union and its member States expressed support for the draft decision presented in document UNEP/FAO/RC/COP.8/4 on general issues related to the implementation of the Convention and introduced a conference room paper that would request the Secretariat to collect relevant data on the international and national trade in chemicals listed or recommended for listing in Annex III to the Convention. He also introduced a second conference room paper on definitions of the term "pesticides", proposing further work to be carried out by the Secretariat to provide complete information on the existence of various definitions of the term and their implications for the implementation of the Convention, including continuation of the survey on different definitions and the preparation of a comprehensive analysis of the replies and a description of the potential implications of the use of different definitions and options for how to address them.

- 49. One representative, opining that different understandings of the prior informed consent procedure undermined its implementation, suggested that the Secretariat enrich the information in the "Frequently Asked Questions" section of the website, make the information easier to read and make that section of the website easier to find.
- 50. The Conference of the Parties took note of the information presented and decided that the Secretariat, in undertaking its work, should take into account the suggestions contained in the conference room papers and the subsequent discussion in plenary.

2. Proposals to increase the number of notifications of final regulatory action

- 51. The representative of the Secretariat introduced the matter, outlining the information in document UNEP/FAO/RC/COP.8/5/Rev.1 and noting that the number of Parties that submitted notifications of final regulatory action continued to be low. According to the results of a survey circulated by the Secretariat pursuant to decision RC-7/1 (UNEP/FAO/RC/COP.8/INF/8), Parties faced difficulties in developing adequate legislation and establishing functional national decision-making processes leading to bans or restrictions of chemicals of concern, in developing mechanisms for data analysis and chemical risk assessment and in submitting notifications of final regulatory action meeting the criteria of Annex II to the Convention. Guidance on preparing notifications of final regulatory action, including a final regulatory action evaluation toolkit prepared with financial assistance from the European Union, was available on the Convention website.
- 52. In the ensuing discussion, the representative of the European Union and its member States introduced a conference room paper setting out elements of a draft decision that built on the draft decision in document UNEP/FAO/RC/COP.8/5/Rev.1. He encouraged Parties, as appropriate, to submit notifications of final regulatory action, to submit proposals for the listing of severely hazardous pesticide formulations in Annex III and to make use of the final regulatory action evaluation toolkit and the toolbox of the Inter-Organization Programme for the Sound Management of Chemicals. He also appealed for feedback on the new toolkit. Hailing capacity-building as a priority, he welcomed broader use of online tools and webinars and requested that the Secretariat take additional steps to provide advice and technical assistance to Parties, including through collaboration with the Basel and Stockholm convention regional centres, the regional and subregional offices of FAO and other partners.
- 53. Two representatives highlighted the limited capacities and resources of developing countries, in particular African countries, to evaluate the risks related to substances and to prepare notifications of final regulatory action and thus the need for technical assistance. Another representative welcomed the support from the Secretariat contemplated in paragraph 2 (b) of the draft decision in document UNEP/FAO/RC/COP.8/5/Rev.1, saying that his country would gladly avail itself of that support.
- 54. The Conference of the Parties took note of the information presented and decided that the Secretariat, in undertaking its work, should take into account the suggestions contained in the conference room paper and the subsequent discussion in plenary.

3. Exports, export notifications and information exchange

- 55. The representative of the Secretariat introduced the matter, outlining the information in document UNEP/FAO/RC/COP.8/6 and reporting that, as requested in decision RC-7/2, the Secretariat had collected information on the exchange of information on exports and export notifications pursuant to paragraph 2 (c) of Article 11 and on the implementation of Articles 12 and 14 of the Convention.
- 56. In the ensuing discussion the representative of the European Union and its member States introduced a conference room paper. He expressed concern regarding what he said was the low rate of response to the Secretariat questionnaire, the low rate of acknowledgement of receipt of export notifications and the low rate of response to explicit consent to import under Article 11 of the Convention. Given the importance of information exchange pursuant to Articles 11, 12 and 14, he urged all Parties to meet their obligations under those articles, highlighting Article 11 also as a means of reducing illegal trade. He also invited the Secretariat to provide assistance to Parties on the matter and to facilitate the exchange of information.
- 57. The Conference of the Parties took note of the information presented and decided that the Secretariat, in undertaking its work, should take into account the suggestions contained in the conference room paper and the subsequent discussion in plenary.

B. Listing of chemicals in Annex III to the Convention

- 1. Consideration of chemicals for inclusion in Annex III
- (a) Membership of the Chemical Review Committee, cooperation between the Committee and other scientific bodies and effective participation in the work of the Chemical Review Committee
 - 58. The representative of the Secretariat reported that the 14 members of the Committee whose designations were subject to confirmation by the Conference of the Parties had begun their terms of office in May 2016, while the remaining 17 members would conclude their terms in April 2018. Therefore, at the current meeting the Conference of the Parties would need to confirm the positions of the 14 members of the Committee and elect 17 new members. In addition, the second of two consecutive terms of office of the current Chair of the Committee would expire on 30 April 2018. The Conference of the Parties would therefore need to elect a new Chair or follow the approach that it had taken at its sixth meeting and request the Committee to select an interim chair for its fourteenth meeting and thereafter elect a Chair at its ninth meeting, in 2019.
 - 59. Regarding the effective participation of new members in the work of the Committee, the Secretariat had conducted an orientation workshop in Rome in April 2016, at which new members had been familiarized with the operations of the Committee.
 - Mr. Jürgen Helbig (Spain), Chair of the Chemical Review Committee, reported that in accordance with Articles 5, 6, and 7 of the Convention, the Committee had completed its review of, finalized draft decision guidance documents in respect of and decided to recommend that the Conference of the Parties consider listing in Annex III to the Convention four chemicals, in addition to the two chemicals and two severely hazardous pesticide formulations that it had previously recommended for listing but on which final decisions had not been adopted by the Conference of the Parties. With regard to chemicals currently under consideration, he reported that the Committee had reviewed notifications of final regulatory action for atrazine submitted by the European Union. Cabo Verde, Chad, the Gambia, Mauritania, the Niger, Senegal and Togo at its eleventh and twelfth meetings but had not reached consensus as to whether the notifications met the criteria set out in Annex II and decided to defer further consideration of the chemical to its thirteenth meeting. At its twelfth meeting, the Committee had also reviewed a proposal from Colombia to list carbofuran suspension concentrate 330 g/L and had concluded that it met the criteria set out in part 3 of Annex IV for listing in Annex III as a severely hazardous pesticide formulation. The Committee had decided to defer work on preparing a draft decision guidance document because the Conference of the Parties at the current meeting would consider listing carbofuran as a pesticide in Annex III, which listing would, should it occur, negate the need to include carbofuran formulation in Annex III as it would already fall within the scope of the listing of carbofuran as a pesticide. He concluded by noting that the Committee was currently scheduled to undertake the review of the pesticides phorate and triazophos and the industrial chemicals carbon tetrachloride, hexabromocyclododecane and polychlorinated naphthalenes at its next meeting.
 - 61. In the ensuing discussion a number of representatives, including one speaking on behalf of a group of countries, expressed appreciation for the work of the Committee, its Chair, and its outgoing members. One representative speaking on behalf of a group of countries expressed support for allowing the Committee to elect an interim chair at its next meeting, subject to confirmation by the Conference of the Parties at its ninth meeting. He also urged Parties to provide resources to enable the Secretariat to continue to organize orientation workshops to acquaint new Committee members with the operations of the Committee, which were considered very useful.
 - 62. The Conference of the Parties then adopted the draft decision set out in document UNEP/FAO/RC/COP.8/7, as orally amended, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
 - 63. Decision RC-8/1, on the operation of the Chemical Review Committee, as adopted by the Conference of the Parties, is set out in annex I to the present report.
 - 64. It was agreed that a nomination for a third member of the Chemical Review Committee from the Latin America and Caribbean region would be communicated to the Secretariat and thence to Parties following the close of the current meeting.

(b) Carbofuran

- 65. The representative of the Secretariat introduced the relevant documents, recalling that the Chemical Review Committee at its eleventh meeting had recommended carbofuran for listing in Annex III to the Convention based on nine notifications of final regulatory action from the European Union, Canada, Cabo Verde, Chad, the Gambia, Mauritania, the Niger, Senegal and Togo. The seven African Parties were all members of the Sahelian Pesticides Committee, and their notifications all related to a single final regulatory action applicable to the Sahelian region. At its twelfth meeting the Chemical Review Committee had finalized a draft decision guidance document on carbofuran and had decided to forward it, together with a recommendation for the inclusion of the chemical in Annex III, to the Conference of the Parties for consideration at the current meeting.
- 66. In the ensuing discussion most of those who spoke, including one speaking on behalf of a group of countries, expressed support for listing carbofuran in Annex III under the pesticide category, saying that all the listing criteria had been met. One representative said that carbofuran had considerable adverse effects on the environment and wildlife in Africa, and another that listing of the chemical would encourage the use of safe alternatives.
- 67. One representative said that her country opposed the listing because carbofuran was widely used in the country as a systemic insecticide for a variety of crops and because there was a lack of effective alternatives. The chemical was primarily used in a soil mix rather than through aerial spraying, and few adverse effects had been observed from its use in that manner. Subsequently another representative of the same Party said that, taking into account the recommendations of the Chemical Review Committee and the views of other Parties, his country would support the listing of carbofuran in Annex III to the Convention. He emphasized, however, that it would be necessary to continue the use of the chemical in his country, which he said would take all necessary measures to ensure that such use was subject to safeguards.
- 68. The Conference of the Parties adopted the decision set out in document UNEP/FAO/RC/COP.8/14 approving the draft decision guidance document for carbofuran and listing the chemical in Annex III to the Convention.
- 69. The Conference of the Parties also decided that the Chemical Review Committee should discontinue its consideration of a proposal by Colombia to list carbofuran suspension concentrate 330 g/L in Annex III as a severely hazardous pesticide formulation, as the formulation at issue fell within the scope of the listing of carbofuran in Annex III at the current meeting.
- 70. Decision RC-8/2, on the listing of carbofuran in Annex III to the Convention, as adopted by the Conference of the Parties, is set out in annex I to the present report.

(c) Trichlorfon

- 71. The representative of the Secretariat introduced the relevant documents, recalling that the Parties had deliberated on the inclusion of trichlorfon in Annex III to the Convention at their seventh meeting but had been unable to reach consensus. The President, observing that the Parties had been very close to agreement at their seventh meeting, asked whether the Conference of the Parties was prepared to adopt the draft decision set out in document UNEP/FAO/RC/COP.8/9 and to approve the associated draft decision guidance document set out in document UNEP/FAO/RC/COP.8/9/Add.1.
- 72. In the ensuing discussion, all representatives who took the floor expressed support for listing the chemical in Annex III to the Convention.
- 73. The Conference of the Parties adopted the decision set out in document UNEP/FAO/RC/COP.8/9 approving the draft decision guidance document for trichlorfon and listing the chemical in Annex III to the Convention.
- 74. Decision RC-8/3, on the listing of trichlorfon in Annex III to the Convention, as adopted by the Conference of the Parties, is set out in annex I to the present report.

(d) Short-chain chlorinated paraffins

75. The representative of the Secretariat introduced the relevant documents, recalling that the Chemical Review Committee at its tenth meeting had recommended short-chain chlorinated paraffins for listing in Annex III to the Convention based on two notifications of final regulatory action from Canada and Norway. At its eleventh meeting the Chemical Review Committee had finalized a draft decision guidance document on short-chain chlorinated paraffins and had decided to forward it, together with a recommendation for the inclusion of the chemical in Annex III, to the Conference of the Parties for consideration at the current meeting.

- 76. In the ensuing discussion, all representatives who took the floor expressed support for the listing of short-chain chlorinated paraffins in Annex III to the Convention.
- 77. The Conference of the Parties adopted the decision set out in document UNEP/FAO/RC/COP.8/12 approving the draft decision guidance document for short-chain chlorinated paraffins and listing the chemical in Annex III to the Convention.
- 78. Decision RC-8/4, on the listing of short-chain chlorinated paraffins in Annex III to the Convention, as adopted by the Conference of the Parties, is set out in annex I to the present report.

(e) Tributyltin compounds

- 79. The representative of the Secretariat introduced the relevant documents, recalling that the Chemical Review Committee at its tenth meeting had recommended tributyltin compounds for listing in Annex III to the Convention in the industrial category based on a notification of final regulatory action for tributyltin compounds in the industrial category from Canada and taking into account that the Committee at its second meeting had concluded that earlier submitted notifications pertaining to the pesticide category had met the criteria of Annex II to the Convention.
- 80. In the ensuing discussion, all representatives who took the floor expressed support for the listing of tributyltin compounds in Annex III to the Convention in the industrial category. One representative supporting the listing said that notifications of final regulatory action could be in different use categories.
- 81. The Conference of the Parties adopted the decision set out in document UNEP/FAO/RC/COP.8/13 approving the draft decision guidance document for tributyltin compounds and listing the chemical in Annex III to the Convention.
- 82. Decision RC-8/5, on the listing of tributyltin compounds in Annex III to the Convention, as adopted by the Conference of the Parties, is set out in annex I to the present report.

(f) Carbosulfan

- 83. The representative of the Secretariat introduced the relevant documents, recalling that the Chemical Review Committee at its eleventh meeting had recommended carbosulfan for listing in Annex III to the Convention based on nine notifications of final regulatory action from the European Union, Burkina Faso, Cabo Verde, Chad, the Gambia, Mauritania, the Niger, Senegal and Togo. The eight African Parties were all members of the Sahelian Pesticides Committee, and their notifications all related to a single final regulatory action applicable to the Sahelian region. At its twelfth meeting the Chemical Review Committee had finalized a draft decision guidance document on carbosulfan and had decided to forward it, together with a recommendation for the inclusion of the chemical in Annex III, to the Conference of the Parties for consideration at the current meeting.
- 84. In the ensuing discussion many representatives, including one speaking on behalf of a group of countries, expressed support for the listing of carbosulfan in Annex III to the Convention, with several citing the health concerns associated with the chemical and one noting the link between carbosulfan and its metabolite carbofuran, which was also being considered for listing.
- 85. A number of representatives opposed the listing, including one who said that it would undermine food security and have a high social and economic cost for millions of people in his country and another who had questions regarding the risk evaluation underlying one of the notifications of final regulatory action on carbosulfan reviewed by the Chemical Review Committee.
- 86. One representative, speaking on behalf of a group of countries, said that the listing of a chemical in Annex III to the Convention did not constitute a ban on that chemical, but rather enabled those importing it to use it safely and sustainably; that the risk evaluation required by Annex II to the Convention encompassed both comprehensive scientific risk assessments and simpler evaluations demonstrating that risks had been assessed; and that experience had shown that the listing of a chemical in Annex III did not hinder exports of that chemical.
- 87. Following its discussion the Conference of the Parties adopted a decision by which it decided that the requirements for listing chemicals in Annex III to the Convention set out in Article 5 and Article 7 of the Convention had been met in respect of carbosulfan and, given that there was no consensus in favour of listing carbosulfan in Annex III, that it would defer further consideration of the chemical to its ninth meeting.
- 88. Decision RC-8/6, on the consideration of carbosulfan for listing in Annex III to the Convention, as adopted by the Conference of the Parties, is set out in annex I to the present report.

(g) Fenthion (ultra low volume formulations at or above 640 g active ingredient/L)

- 89. The representative of the Secretariat introduced the relevant documents, recalling that the Parties had deliberated on the inclusion of fenthion (ultra low volume formulations at or above 640 g active ingredient/L) in Annex III to the Convention at their seventh meeting but had been unable to reach consensus.
- 90. In the ensuing discussion, one representative said that at an African subregional meeting in Khartoum several countries had opposed the listing of fenthion in Annex III to the Convention on the grounds that the chemical was used to control quelea birds and that there were no available alternatives to fenthion for that use. He said that listing the chemical would pose problems for crops such as sorghum and millet and would adversely affect food security. Another representative, noting that the African region had the highest level of pesticide poisoning according to a WHO report, said that at that subregional meeting participants had not discussed the listing of fenthion but only reviewed alternatives to fenthion. Another representative said that participants at the meeting had agreed to adopt and promote alternatives to fenthion when possible, that fenthion should be used as a last resort at a maximum concentration of 600 g active ingredient/L and that countries would require financial support to enable them to use alternatives. A number of representatives suggested that fenthion at a concentration of 600 g active ingredient/L was as effective as 640 g active ingredient/L and could be used until more suitable alternatives were identified.
- 91. Several representatives opposed the listing of fenthion, saying that it was necessary for controlling quelea birds and ensuring food security, that there were a lack of suitable alternatives, that listing could result in a scarcity of the chemical and an increase in its price and that it was currently being used in a controlled and safe manner. One representative proposed that in the absence of alternatives, instead of listing, awareness raising and community engagement could address some of the concerns voiced.
- 92. Many representatives supported the listing of fenthion in Annex III, saying that it met the requirements of Article 6 and Article 7 of the Convention, that people had a right to information and a right to health and that listing would spur the identification of suitable alternatives. In addition, one representative speaking on behalf of a group of countries said that the country proposing listing had demonstrated a real problem with the use of fenthion under national conditions and that the criteria of Annex IV had therefore been met; there was no need for another country to demonstrate a problem with use of the same substance. One representative, while supporting the listing of fenthion, said that the listing of chemicals in Annex III to the Convention should only be achieved by consensus. She said that Parties should react with understanding to the concerns of those opposing listing and work with such Parties to address their concerns.
- 93. Following its discussion the Conference of the Parties adopted a decision by which it decided that the requirements for listing chemicals in Annex III to the Convention set out in Article 6 and Article 7 of the Convention had been met in respect of fenthion (ultra low volume formulations at or above 640 g active ingredient/L) and, given that there was no consensus in favour of listing that formulation in Annex III, that it would defer further consideration of fenthion (ultra low volume formulations at or above 640 g active ingredient/L) to its ninth meeting.
- 94. Decision RC-8/7, on the consideration of fenthion (ultra low volume formulations at or above 640 g active ingredient/L) for listing in Annex III to the Convention, as adopted by the Conference of the Parties, is set out in annex I to the present report.

(h) Chrysotile asbestos

- 95. The representative of the Secretariat introduced the relevant documentation, noting that a draft decision on the matter was set out in document UNEP/FAO/RC/COP.8/11 and recalling that the Conference of the Parties had deliberated on the inclusion of chrysotile asbestos in Annex III to the Convention at its third, fourth, fifth, sixth and seventh meetings but had been unable to reach consensus.
- 96. In the ensuing discussion many representatives, including two speaking on behalf of groups of countries, supported listing chrysotile asbestos in Annex III to the Convention. They argued, inter alia, that all the criteria, procedures and requirements mandated by the Convention for listing a chemical in Annex III had been met; that listing chrysotile asbestos would allow for enhanced information exchange that would assist Parties to mitigate the environmental and health risks associated with its use; that listing a chemical in Annex III did not constitute a ban on its use or an international trade barrier but did allow Parties to make better informed decisions and to apply the prior informed consent procedure to protect human health and the environment; and that failing to reach agreement on listing

chemicals that met the criteria for listing ran contrary to the purpose of the Convention, violated its principle of shared responsibility, harmed its credibility and compromised its effectiveness.

- 97. Several other representatives opposed the listing of chrysotile asbestos in Annex III, arguing, inter alia, that there was no conclusive scientific evidence of negative human health effects; that the documentation on which the Chemical Review Committee had based its work was flawed; that listing chrysotile asbestos in Annex III would create significant economic hardships; that safety regulations in their countries allowed for the safe manufacture and use of chrysotile asbestos; and that there were no safe and cost-effective alternatives to chrysotile asbestos for many uses. Several representatives said that because the Conference of the Parties had been unable to achieve consensus on the listing of chrysotile asbestos despite discussing it at numerous meetings, and because the scientific case for listing had not been made, the Conference of the Parties should not discuss the listing of chrysotile asbestos at future meetings in the absence of new scientific information that convincingly demonstrated a need to reopen the issue.
- 98. Many representatives, including one speaking on behalf of a group of countries, argued that there was abundant and sound scientific evidence of the harmful effects of chrysotile asbestos on human health, with several noting that the International Agency for Research on Cancer of the World Health Organization (WHO) had classified all forms of asbestos, including chrysotile asbestos, as carcinogenic and that WHO had concluded that the scientific evidence regarding its hazard to human health was overwhelming and that there was no safe level of exposure to chrysotile asbestos. A representative speaking on behalf of a group of countries noted that the Convention did not require the conduct of risk assessments or comprehensive scientific assessments of chemicals but rather the review of notifications of final regulatory action against the criteria set out in Annex II to the Convention.
- 99. Several representatives who supported listing, including one speaking on behalf of a group of countries, described their national policies and experiences relevant to chrysotile asbestos, including, inter alia, the health problems and deaths that it had caused in their countries; various pathways through which citizens were exposed to chrysotile asbestos, including exposure related to its manufacture and use and the destruction by storms of buildings and materials that contained it; the difficulties associated with monitoring its international trade; the technical challenges and significant economic expenses associated with the removal of chrysotile asbestos; and the availability of substitutes. One called for the development of manuals to provide guidance on the environmentally sound management of asbestos residues. Several representatives who opposed listing outlined the manufacture or use of chrysotile asbestos in their countries, its important economic impact, the regulations designed to protect human health and the safety record in relevant industries.
- 100. Given the lack of consensus, the Conference of the Parties decided to defer further consideration of chrysotile asbestos to its ninth meeting.

(i) Liquid formulations (emulsifiable concentrate and soluble concentrate) containing paraquat dichloride at or above 276 g/L, corresponding to paraquat ion at or above 200 g/L

- 101. The representative of the Secretariat introduced the relevant documents, noting that a draft decision on the matter was set out in document UNEP/FAO/RC/COP.8/10, and outlined technical assistance activities of the Secretariat aimed at strengthening the capacity of Parties with regard to alternatives to newly listed and candidate pesticides under the Rotterdam Convention, including paraquat dichloride. As with chrysotile asbestos, the President then recalled that at its sixth meeting the Conference of the Parties had concluded in decision RC-6/8 that the requirements of Articles 6 and 7 of the Convention for listing the paraquat dichloride formulations in Annex III had been met but, owing to the concerns of several Parties, had been unable to reach consensus on their listing. Again recalling that the listing of a chemical in the Convention merely facilitated the exchange of information about the chemical and did not prohibit its trade between consenting countries, and stressing that the proposed listing would only cover paraquat dicholoride formulations with concentrations of the chemical at or above 276 g/L, he asked whether the Conference of the Parties was prepared to adopt the draft decision set out in document UNEP/FAO/RC/COP.8/10 and to approve the associated draft decision guidance document set out in document UNEP/FAO/RC/COP.8/10/Add.1.
- 102. In the ensuing discussion many representatives, including some speaking on behalf of groups of countries, supported the listing of liquid formulations containing paraquat dichloride at or above 276 g/L, corresponding to paraquat ion at or above 200 g/L, in Annex III to the Convention, saying that all the criteria for listing had been met. Several representatives drew attention to its toxicity and impact on human health and the environment, and several said that its use had been banned or restricted in their countries. Several representatives said that while their countries allowed the import

and use of the paraquat dichloride formulations under discussion they supported listing in order to facilitate information exchange and safe use of the chemical. One representative said that listing would facilitate the alignment of import conditions with domestic measures already in place to promote the safe use of paraquat formulations. One representative said that listing of the paraquat dichloride formulations under discussion would assist advocacy efforts in the representative's country to ban the use of the chemical.

- 103. A number of representatives, including one speaking on behalf of a group of countries, stressed that listing did not constitute a ban but instead would merely assist those countries that continued to use it to make informed decisions on the conditions applied to its import and use. One representative, speaking on behalf of a group of countries and responding to an assertion by an observer that the listing of a chemical resulted in negative economic impacts, said that evidence to support the assertion should be provided to the Secretariat as the claim was not in line with that Party's own investigations.
- 104. One representative, speaking on behalf of a group of countries, spoke in favour of listing paraquat dichloride formulations in Annex III, stating that the chemical was used for weed control in those countries, often without adequate protection and with limited understanding of proper application procedures or its adverse health effects. In addition, the proper management and legal infrastructure for protecting human health and the environment was lacking, requiring further financial, technical and legal assistance and information exchange to ensure the safer use of pesticides and herbicides and the promotion of alternatives.
- 105. One representative, opposing listing of the paraquat dichloride formulations under discussion, said that the findings of independent research in his country were not in line with those of the Burkina Faso study considered by the Chemical Review Committee and had not demonstrated the need for regulatory measures more stringent than those already in place. The Government would nevertheless undertake a further technical study of the use and effects of paraquat, and the findings of that study would inform his Party's stance on the issue at the next meeting of the Conference of the Parties. Another representative opposed the listing of paraquat dichloride formulations in Annex III to the Convention in the form proposed, on the grounds that the Chemical Review Committee had not considered a sufficient body of evidence and that WHO had only classified the chemical as class II, moderately hazardous. Further scientific evidence was needed to supplement and update the information currently available.
- 106. Given the lack of consensus, the Conference of the Parties decided to defer further consideration of liquid formulations (emulsifiable concentrate and soluble concentrate) containing paraquat dichloride at or above 276 g/L, corresponding to paraquat ion at or above 200 g/L, to its ninth meeting.

2. Intersessional work on the process of listing chemicals in Annex III to the Convention

- The representative of the Secretariat introduced the sub-item, outlining the information in document UNEP/FAO/RC/COP.8/16 and recalling that at its seventh meeting the Conference of the Parties had established an intersessional working group with the mandate to review the cases in which the Conference of the Parties had been unable to reach consensus on the listing of chemicals in Annex III to the Convention by identifying the reasons for and against listing, and to use that and other information, such as that set out in documents UNEP/FAO/RC/COP.4/12 and UNEP/FAO/RC/COP.4/13, to develop options for improving the effectiveness of the process for listing chemicals in Annex III to the Convention. The group was also to develop proposals for enabling improved information flows that supported the prior informed consent procedure for such chemicals. The group comprised 80 experts from 35 Parties and 15 observers. Australia had volunteered to act as lead country for the intersessional process and in that capacity had facilitated the preparation of a workplan and an initial discussion document and, together with the Government of Latvia, had organized a workshop in Riga in July 2016. The workshop had been co-funded by the Governments of Australia, Germany and Latvia. The workshop had resulted in a report, including a non-exhaustive list of proposals and options for improving the effectiveness of the process for listing chemicals in Annex III, which was set out in document UNEP/FAO/RC/COP.8/INF/20. At the request of the workshop participants the Secretariat had also prepared a study of information on the impacts of listing chemicals in Annex III to the Convention, which was set out in document UNEP/FAO/RC/COP.8/INF/21.
- 108. She then reported that on 11 October 2016 the Secretariat had received two proposals to amend the Convention. The first related to Article 16, on technical assistance, and had been submitted by Botswana, Cameroon, Ghana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Nigeria, South Africa, Swaziland, the United Republic of Tanzania, Zambia and Zimbabwe. The second related to Article 22, on the adoption and amendment of annexes, and had been submitted by Botswana, Cameroon, Ghana,

Kenya, Lesotho, Malawi, Mozambique, Namibia, Nigeria, Swaziland, the United Republic of Tanzania and Zambia. The Secretariat had communicated both proposals to the Parties on 18 October 2016, more than six months before the start of the current meeting. The amendment proposals were set out in document UNEP/FAO/RC/COP.8/16/Add.1, explanatory notes by the proponents in document UNEP/FAO/RC/COP.8/INF/40 and comments on the proposals submitted by Parties in document UNEP/FAO/RC/COP.8/INF/41.

- 109. The representative of Australia then presented the report of the workshop. Summarizing the discussions, he said that they revealed a general sense that the Convention and multilateralism continued to play an important role in facilitating information exchange in relation to international trade in chemicals and that there was broad overall support for the objectives of the Convention and general agreement that the listing of chemicals in Annex III was important but was a complement to and should not replace domestic processes. Among the matters discussed were the question of whether listing in Annex III resulted in bans of listed chemicals; ideas for improving the listing process and the implications of listing; and improving the effectiveness of the process by looking outside the scope of the Convention at matters such as possible means of influencing public perception.
- He then turned to the proposals for improving the process, which included a more proactive approach to identifying potential chemicals for Annex III listing; supporting the development of final regulatory action in developing countries; increasing the number and quality of notifications of final regulatory action; and making better use of notifications submitted to the Secretariat, such as through increased awareness. With regard to the consideration of chemicals by the Chemical Review Committee, proposals on alternatives to listed chemicals, translation of documents, opportunities for outside consultation and the role of observers had been discussed. With regard to the consideration of chemicals for listing in Annex III by the Conference of the Parties, the intersessional group had discussed proposals on improving the operation of the Conference of the Parties, consideration of socioeconomic factors, building awareness, industry engagement, compliance, enforcement, technical assistance and the impacts of listing, with the last subject leading to the preparation of the study set out in document UNEP/FAO/RC/COP.8/INF/21. There were also proposals related to decision-making in the absence of consensus, including the need to explore the understanding of consensus, Party opt-outs from listing amendments, the development of new legal instruments, new voluntary annexes, voluntary prior informed consent procedures and voting. Some of the proposals resulting from the workshop, he said, might help the Conference of the Parties to focus on ways to enhance the effectiveness of the Convention.
- 111. The representative of Nigeria then introduced the proposal to amend Article 22 of the Convention. A majority of Parties, he said, were frustrated with the failure to list certain chemicals despite undisputed evidence of their adverse effects on human health and the environment. With the number of chemicals increasing, the proponents were concerned that the Convention would become ineffective if decisions to list other chemicals were similarly delayed. Interpreting consensus as absolute agreement effectively gave a few Parties a veto over the majority. Like others, the proponents strongly favoured consensus but felt that provisions for voting as a last resort promoted earnest negotiations. The proponents were open to further discussion, and an amendment to Article 22 could even be avoided if Parties could agree that consensus meant general rather than absolute agreement.
- 112. The representative of Cameroon then presented the proposal to amend Article 16, saying that it was intended to ensure that developed countries and countries with capacity provided both technical and financial assistance the latter through the GEF trust fund to help developing countries and countries with economies in transition to build their chemicals management capacities. The proposal was linked to the proposal to amend Article 22 insofar as some countries did not support the listing of chemicals because they did not have the means to find or accommodate alternatives, including because of their cost.
- 113. In the ensuing discussion many representatives, including one speaking on behalf of a group of countries, lauded the work done by the intersessional working group and expressed appreciation to the Governments of Australia, Germany and Latvia for supporting its work, noting that it had allowed for a broad discussion of key issues and saying that discussions on ways to improve the effectiveness of the Convention should continue. Several, including one speaking on behalf of a group of countries, said that the intersessional process should continue.
- 114. Many representatives said that developing country Parties required additional financial and technical assistance to enable them to implement the Convention effectively and to manage hazardous pesticides and other chemicals and wastes in an environmentally sound manner. One representative said that only Parties that were members of the European Union had transmitted export notifications to his country, which showed that the Convention was not being fully implemented.

- 115. Many representatives expressed support for the proposed amendment to Article 16. Several representatives, including one speaking on behalf of a group of countries, said that their countries were willing to explore ways to improve the provision of financial and technical assistance within existing mechanisms that supported the effectiveness of the Convention. One representative said that GEF had become too politicized in its evaluation of projects and was unlikely to provide transparent and effective support to all Parties requiring assistance.
- 116. In the discussion on the proposed amendment to Article 22 the views expressed differed, with many representatives supporting and many others opposing it. Many representatives, including one speaking on behalf of a group of countries, said that they shared the concerns underlying the proposed amendment to Article 22. Several said that the ability and willingness of a small number of Parties, and sometimes a single Party, to prevent the listing of a chemical in Annex III despite a recommendation by the Chemical Review Committee that the substance met the criteria established by the Convention, negatively affected the effectiveness of the Convention, was not in keeping with its original intent or spirit and prevented the majority of Parties from benefiting from its provisions.
- 117. Many representatives expressed support for the proposed amendment to Article 22, saying among other things that it would enhance the effectiveness of the Convention; provide increased protection to human health and the environment; enhance shared responsibility; bring the operations of the Convention into line with relevant scientific findings; prevent a few Parties from overriding the will of the great majority; allow Parties to receive valuable information and other assistance that would build their capacity to manage hazardous chemicals; and not prevent any country from producing, using, exporting or importing a listed substance.
- 118. Several representatives, while expressing support for certain arguments of the proponents, expressed concern that the proposed amendment might have unintended consequences that would undermine the operation of the Convention, including the probability that all Parties would not be subject to the same prior informed consent procedures for the same chemicals.
- 119. Many other representatives expressed opposition to the proposed amendment, saying that consensus-based decision-making protected the sovereign rights and legitimate individual interests of Parties; that voting on the listing of chemicals would violate a basic principle of the Convention; that entry into force would take too long and result in logistical problems; that the Convention consisted of a balanced set of provisions agreed to as a unit, with each article linked to another, such that changing the decision-making procedures would undermine that balance and perhaps require the renegotiation of other aspects of the Convention; and that listing chemicals in the absence of consensus would harm Parties that opposed listing. Several Parties said that the proposed amendment had not been endorsed by all Parties of the African region. One representative said that the listing of additional chemicals in Annex III should not be considered the only measure of the Convention's effectiveness.
- 120. A number of representatives, including one speaking on behalf of the proponents of the Article 16 amendment, said that the two amendment proposals were linked. A number of others said that the proposals should not be considered at the current meeting because they had not had the opportunity to examine them. In response the representative of the Secretariat confirmed that the Secretariat had communicated the proposals to the Parties more than six months before the current meeting as required by Article 21 of the Convention.
- 121. Following the discussion the President underscored the importance of having expert rather than politicized discussions in an informal setting. The Conference of the Parties then established an informal open-ended contact group, co-chaired by Mr. Andrew McNee (Australia) and Ms. Silvija Kalnins (Latvia), that would be open to participation by representatives of Parties and non-Party States. The mandate of the contact group was to develop an outcome on the way forward to enhance the effectiveness of the Rotterdam Convention, taking note of all the relevant documents including documents UNEP/FAO/RC/COP.8/16 and UNEP/FAO/RC/COP.8/INF/20.
- 122. The Conference of the Parties subsequently adopted a draft decision submitted by the contact group.
- 123. Decision RC-8/8, on enhancing the effectiveness of the Rotterdam Convention, as adopted by the Conference of the Parties, is set out in annex I to the present report.
- 124. During discussion of the draft decision one representative said that proposals submitted by a group of countries from his region had not been considered and that the proposals agreed to the adoption of the decision on the understanding that the proposals would be taken up at the ninth meeting of the Conference of the Parties. He also said that the outcome of the discussion on the effectiveness of the Convention demonstrated that the general interest could be thwarted by a few or even one Party because of the way the rules of procedure and the concept of consensus were being

applied. No Party, he said, should have a veto power with regard to matters related to the protection of human health and the environment, on which there was general agreement.

C. Compliance

- 125. The discussion summarized in the present section, on compliance (agenda item 5 (c)), took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 126–157, below are replicated in the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 118–149, and in the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), paragraphs 191–222.
- 126. Introducing the item, the President indicated that matters relating to compliance under each of the three conventions would be discussed sequentially, with each President presiding over the discussions pertaining to his convention.

1. Basel Convention

- 127. The representative of the Secretariat introduced the matter, indicating that the principal subjects to be considered at the current meeting were the report of the Committee Administering the Mechanism for Promoting Implementation and Compliance on its activities during the biennium 2016–2017 (UNEP/CHW.13/9, sects. II B and II C), which included recommendations in respect of both the Committee's general review mandate and its specific submission mandate, and the election of five new members of the Committee. Draft guidance on illegal traffic (UNEP/CHW.13/9/Add.1) and proposed revisions to the revised reporting format and the forms for notifying the designation of country contacts and import/export restrictions or prohibitions (UNEP/CHW.13/9/Add.2) were also before the Conference of the Parties for consideration. She highlighted the generous financial support for the Committee that had been provided by the Governments of Colombia, Japan, Norway and Switzerland and by the European Union.
- Mr. Juan Simonelli (Argentina), Chair of the Implementation and Compliance Committee, 128. gave a presentation, highlighting some of the activities and recommendations detailed in document UNEP/CHW.13/9. Regarding the work of the Committee on specific submissions, he outlined the progress made in dealing with the 13 specific submissions considered at the Committee's twelfth meeting. He added that the Committee recommended that it be mandated to explore options for strengthening institutional links with the executive board of the Special Programme to support institutional strengthening at the national level for implementation of the Basel, Rotterdam and Stockholm conventions, the Minamata Convention and the Strategic Approach to International Chemicals Management, to ensure mutual support between the two bodies and the efficient use of resources. As to the work under the general review mandate, he drew attention to the activities and recommendations related to national reporting, national legislation, illegal traffic, guidance on insurance, bonds and other guarantees and the control system. On the matter of reporting he pointed out that the targets set at the twelfth meeting of the Conference of the Parties to improve the completeness and timely submission of national reports had not been met, with only nine of the 178 Parties with an obligation to submit full reports for 2013 having done so by the stated deadline. In concluding, he drew attention to the Committee's proposed programme of work for 2018–2019, which included new areas of work for the consideration of the Conference of the Parties, and expressed appreciation for, among other things, the cooperation of Parties in the activities of the Committee and the financial support provided by Parties, including through the implementation fund.
- 129. In the ensuing discussion, many participants voiced appreciation for the work of the Implementation and Compliance Committee. One representative said that the mechanism should assist Parties to implement the Convention and be simple, transparent and not overly rigid. He said that it should help Parties to provide reports with the required information within required timelines and improve coordination between all authorities such that information could be provided on product inventorying and scheduling, and he added that additional guidelines for the preparation of reports and inventories should be developed. Another representative said that the mechanism worked well and that Parties viewed it as supportive rather than punitive. He added that his country was pleased to continue to support the implementation fund. Another representative urged that work towards the development of guidance on Article 11 agreements and arrangements with non-Parties continue. Another representative, speaking on behalf of a group of countries, said that the Committee should keep its activities consistent with its programme of work and mandate. He drew attention to conference room papers submitted by the European Union and its member States that contained suggestions for amendments to the guidance on illegal traffic and the format for national reporting, saying that another

conference room paper would be submitted proposing changes to the draft decision and to the Committee's programme of work. Supported by another representative he expressed concern regarding the proposed further work on electronic approaches to the control system and said that the possible establishment of an intersessional group as well as the previously mentioned issues could be discussed in a contact group. Another representative said that amending the terms of reference of the Committee merited further discussion and that she would have some recommendations on a few items of the work programme.

- 130. One representative said that he had submitted a conference room paper reflecting concerns with the reporting format. Regarding the classification of Parties' compliance performance with regard to reporting, he objected to the naming of Parties and, suggesting that even developed countries did not always have the capacity to complete their national reporting, said that the mechanism must retain the spirit of the Convention by building the capacity of countries to implement its objectives. Another representative said that the proposed additional paragraph for the terms of reference of the Committee should reflect a non-punitive, non-adversarial and conciliatory mechanism, which was not the way it was currently drafted.
- 131. A few representatives drew attention to the low level of reporting, with one adding that it was not clear whether the Committee had carried out a study to understand the reason why there had been so little reporting and another suggesting that the reason was that there was no new information to report. One representative said that since the existing reporting system was not being well implemented it might not be effective to impose additional requirements that might improve the process but would require additional funding that had not yet been identified.
- 132. Several representatives said that there was a need for technical and financial assistance, training and capacity-building in respect of reporting. One representative said that the Special Programme could assist countries with such needs. He added that it was important to accelerate the mechanism so that reporting could be carried out in a timely manner and consistently between the three conventions.
- 133. Several representatives outlined their countries' experience in matters related to compliance and identified challenges faced, including a lack of infrastructure resulting in hazardous waste needing to be treated abroad, national situations that led to the spread of hazardous wastes and chemicals, a need for assistance with the return of illegal goods to their points of origin, improvement of feedback on reports submitted and a lack of national legislation and inventories of all processes for fighting against waste products.
- 134. Following the discussion the Conference of the Parties established a contact group on Basel Convention compliance and legal matters, co-chaired by Mr. Simonelli and Mr. Geri-Geronimo Romero Sañez (Philippines). The group was asked to prepare for consideration by the Conference of the Parties to the Basel Convention at a subsequent session a draft decision using the draft decision in document UNEP/CHW.13/9 as a starting point and taking into account the discussion outlined above; a revised draft of the guidance set out in document UNEP/CHW.13/9/Add.1; and revised proposed revisions to the revised reporting format and the forms for notifying the designation of country contacts and import/export restrictions or prohibitions set out in document UNEP/CHW.13/9/Add.2 and the conference room papers submitted by the European Union and its member States and India.
- 135. Following the establishment of the contact group the President said that it was vital for all Parties to the Convention, especially those not in a position to participate in intersessional processes, to have the time to review the outcomes of such processes so that they could come to meetings of the Conference of the Parties prepared for their consideration and possible adoption. The regional preparatory meetings were key to that preparatory work, as was careful planning to ensure that the outcomes of intersessional processes were finalized in a timely manner. To that end, he had asked the Secretariat to prepare a schedule for intersessional work to ensure that all products of intersessional groups under the Basel Convention were complete by the end of October 2018 so that they would be ready for consideration and possible adoption at the fourteenth meeting of the Conference of the Parties.
- 136. Subsequently the Conference of the Parties to the Basel Convention adopted, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019, the draft decision prepared by the contract group, in which, among other things, it adopted a revised version of the draft guidance on illegal traffic (UNEP/CHW.13/9/Add.1/Rev.1) and further revised versions of the reporting format and forms for notifying the designation of country contacts and import/export restrictions and prohibitions (UNEP/CHW.13/9/Add.2/Rev.1).

137. Decision BC-13/9, on the Committee Administering the Mechanism for Promoting Implementation and Compliance, as adopted by the Conference of the Parties, is set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28).

2. Rotterdam Convention

- The representative of the Secretariat introduced the matter, outlining the information in document UNEP/FAO/RC/COP.8/18 and recalling that at its seventh meeting, as at all its previous meetings, the Conference of the Parties to the Rotterdam Convention had discussed but had not achieved consensus on adoption of the procedures and mechanisms on compliance required under Article 17 of the Convention. By its decision RC-7/6, the Conference of the Parties had accordingly decided that it would further consider the procedures and mechanisms for adoption early in the course of its eighth meeting, using the draft text in the annex to the decision (reproduced for the current meeting in annex I to document UNEP/FAO/RC/COP.8/18) as the starting point for its discussions, and had invited the Bureau to facilitate consultations among Parties in the period between its seventh and eighth meetings to promote a policy dialogue on outstanding issues. In the course of those consultations, following the submission of views by Parties, the Presidents of the three conferences of the Parties had submitted to the bureaux of the three Conventions a proposal that the Conference of the Parties to the Rotterdam Convention consider for adoption the procedures and mechanisms on compliance in plenary at the beginning of the 2017 meetings. Concluding the introduction of the document, she said that the compromise text and draft decision by the co-chairs of the contact group that had considered the matter at the seventh meeting of the Conference of the Parties was set out in annex II to document UNEP/FAO/RC/COP.8/18.
- 139. The President said that as a result of the consultations held since the seventh meeting of the Conference of the Parties, it appeared that there was no longer any objection to the adoption of the procedures and mechanisms on compliance. He proposed that the Conference of the Parties adopt the draft decision set out in annex II to document UNEP/FAO/RC/COP.8/18, with minor adjustments to reflect that it was being adopted at the eighth rather than the seventh meeting of the Conference of the Parties.
- 140. In the ensuing discussion, it was widely acknowledged that the establishment of compliance procedures was required by the Convention, that compliance with the Convention was crucial to its success, and that the compliance procedure to be established should contribute to the effective implementation of the Convention and be facilitative, transparent and non-punitive in nature. Many representatives, including one speaking on behalf of a group of countries, emphasized that the provision of adequate financial and technical assistance was closely linked to the effective implementation of the Convention and thus compliance.
- 141. Several representatives called for the examination of the draft text on procedures and mechanisms on compliance with the Rotterdam Convention and the links between compliance and financial resources and technical assistance, including with regard to how the term compliance should be defined. One called for amending the Convention to create a dedicated financial mechanism to support implementation. Other representatives, including a number speaking on behalf of groups of countries, said that compliance procedures could be agreed to at the current meeting based on the compromise text and draft decision achieved at the seventh meeting of the Conference of the Parties. Several of those representatives, including one speaking on behalf of a group of countries, said that discussion should be limited to issues on which there was disagreement at the end of the seventh meeting of the Conference of the Parties, as indicated by the presence of square brackets around relevant paragraphs in the draft text. Another representative underscored that, at the seventh meeting of the Parties, his country had not agreed to the text on procedures and mechanisms on compliance with the Rotterdam Convention.
- 142. Following the discussion, it was agreed that the matter would be further considered during the separate sessions of the eighth meeting of the Conference of the Parties to the Rotterdam Convention.
- 143. Following resumption of the consideration of the matter of compliance a regionally balanced friends-of-the-President group chaired by the President was established to look at the way forward. The President subsequently presented for adoption a compromise version of the annexes to document UNEP/FAO/RC/COP.8/18 that he had prepared following consultations in the friends-of-the-President group in an effort to accommodate the concerns of those opposing the proposed compliance mechanism and procedures in their current form while respecting the position of others that matters on which tentative agreement had been reached at the sixth and seventh meetings of the Conference of the Parties should not be reopened. In introducing the compromise version he noted in particular that a Party-to-Party trigger could only be effected following consultation with the Party concerned to allow

it to correct any misunderstandings and that the proposed compliance committee would have to ensure that it was taking into account the Party's national circumstances in drafting its recommendations; that while the committee could adopt decisions by a four-fifths majority, any recommendations put forward by the committee to the Conference of the Parties for adoption would need to be approved by the Conference of the Parties by consensus; and that any Party being reviewed should receive information and advice from the committee to facilitate its preparation of a voluntary plan for meeting its obligations under the Convention. He also highlighted a new paragraph in the related draft decision stating that the procedures and mechanisms should be facilitative, non-punitive and non-adversarial.

- 144. In the ensuing discussion one representative said that the President's compromise version did not adequately capture his country's position. Supported by several other representatives, he said among other things that only a few Parties had had a chance to examine it in detail; that it therefore reflected the views of a relatively small group of Parties; and that debate should continue and not be limited to provisions enclosed in square brackets in the draft text in annex I to document UNEP/FAO/RC/COP.8/18. One representative, supported by another, called for further discussion in a contact group.
- 145. Several other representatives, on the other hand, including one speaking on behalf of a group of countries, commended the President on his work and, expressing dismay at the failure to achieve consensus, opposed any further discussion of text on which tentative agreement had been reached at previous meetings of the Conference of the Parties.
- 146. The President then indicated that while some representatives had expressed concern regarding his compromise proposal none had objected to its adoption, and he accordingly announced that it had been adopted. Several representatives, asking that their comments be reflected in the present report, argued strongly in response that they had indeed objected to the adoption of the compromise proposal. They also said that the President's announcement that his proposal had been adopted was invalid, with one Party objecting to the announcement.
- 147. At a subsequent session, one Party, asking that its comment be reflected in the present report, requested that the quorum for the debate to proceed be verified, which was done by the Secretariat and announced by the President. The debate then continued with the President saying that, in the light of the comments mentioned in the previous paragraph, it had become clear that there was no consensus on his proposal and that the Conference of the Parties had not in fact adopted his proposed compromise text, and he then withdrew that text as a proposed basis for further discussion.
- 148. Regarding the basis for further discussion of compliance at future meetings of the Conference of the Parties, several representatives, including one speaking on behalf of a group of countries, reiterated their position that discussion should proceed from the tentative agreement that had been reached at the seventh meeting of the Conference of the Parties and, with one Party referring to the importance of incremental negotiations, that draft text set out in the annex to decision RC-7/6 that was not enclosed in square brackets should not be reopened. Citing the proposition that "nothing is agreed until everything is agreed", a number of other representatives argued that all provisions of the draft compliance procedures and mechanisms remained open for debate and that future discussions should reflect all positions put forth at the current meeting, including in relevant conference room papers. Another representative said that aspects of the consensus decision-making procedures were blocking progress in the operation and further development of the Convention.
- 149. Given the lack of consensus, the Conference of the Parties decided to defer further consideration of compliance to its ninth meeting.

3. Stockholm Convention

150. The representative of the Secretariat introduced the matter, outlining the information in document UNEP/POPS/COP.8/23 and recalling that at its seventh meeting and all previous meetings the Conference of the Parties to the Stockholm Convention had discussed but had not achieved consensus on adoption of the procedures and mechanisms on compliance required under Article 17 of the Convention. By its decision SC-7/26, the Conference of the Parties had accordingly decided that it would further consider the procedures and mechanisms for adoption early in the course of its eighth meeting and had invited the Bureau to facilitate consultations among Parties in the period between its seventh and eighth meetings to promote a policy dialogue on outstanding issues. In the course of those consultations, following the submission of views by Parties, the Presidents of the three conferences of the Parties had submitted to the bureaux of the three conventions a proposal that the issue of compliance be taken up by a friends-of-the-President group early in the course of the 2017 meetings. She also noted that in considering the draft procedures and mechanisms on compliance the Conference of the Parties might wish to take into account relevant recommendations of the effectiveness

evaluation committee (UNEP/POPS/COP.8/22/Add.1, paras. 151–169, 179 and 180), which included a recommendation that the Conference of the Parties adopt procedures and mechanisms on compliance at the current meeting.

- 151. Continuing the introduction the President said that the Conference of the Parties could commence its work based on either of the two versions of the draft procedures and mechanisms text set out in the annex to document UNEP/POPS/COP.8/23: the first version as it stood at the close of the sixth meeting of the Conference of the Parties, at which time there were four principal issues outstanding, and the second as it stood at the close of the seventh meeting of the Conference of the Parties, which reflected several additional outstanding issues raised at that meeting.
- 152. In the ensuing discussion many representatives, including several speaking on behalf of groups of countries, underscored the importance of establishing an effective compliance mechanism. A number of representatives said that compliance and the provision of adequate financial and technical assistance to developing countries were linked. Several representatives, including a number speaking on behalf of groups of countries, said that discussion of the matter should move forward on matters on which agreement had not yet been reached and should not reopen previous discussions. Another representative proposed the establishment of a contact group to discuss remaining substantial issues and views.
- 153. Following the discussion the Conference of the Parties established a contact group, co-chaired by Ms. Anne Daniel (Canada) and Mr. Humphrey Mwale (Zambia), to consider the matter for a period of three hours, after which the co-chairs would report to the plenary on the outcome of the group's discussions.
- 154. Following the work of the contact group the Conference of the Parties decided that a regionally balanced friends-of-the President group co-chaired by Ms. Daniel and Mr. Mwale would consider the matter further with a focus on the outstanding issues and with the aim of preparing for its consideration a draft decision taking into account the discussions in plenary and in the contact group.
- 155. At a subsequent session, the co-chair of the friends-of-the-President group reported that the group had continued the discussions initiated in the contact group on the outstanding issues common to both versions of the draft procedures and mechanisms text set out in the annex to document UNEP/POPS/COP.8/23, namely, triggers and measures, until one delegation had expressed strong concern over the operating format that had been set for the group. The Conference of the Parties therefore decided to resume consideration of the matter in the contact group. At a subsequent session, the co-chair of the contact group reported that the group had held general discussions on 16 elements put forward by a group of countries, and subsequently discussed, without reaching agreement, how to further consider the matter of compliance at the next meeting of the Conference of the Parties.
- 156. Several representatives, including one speaking on behalf of a group of countries, said that, given that no agreement on any issue had been reached at the present meeting, future discussions of the matter should be based on the two versions of the draft procedures and mechanisms text set out in the annex to document UNEP/POPS/COP.8/23. Several other representatives said that deliberations on the matter at the ninth meeting of the Conference of the Parties should also give equal consideration to the discussions, and the proposals introduced, at the current meeting. One representative said that the entire text was open for further negotiation and requested that the Secretariat compile all relevant documents, including proposals introduced and views expressed at the current meeting, to produce a comprehensive text as the basis for future discussions.
- 157. Given the lack of consensus, the Conference of the Parties decided to defer further consideration of the matter of compliance to its ninth meeting.

D. Technical assistance

- 158. The discussion summarized in the present section, on technical assistance (agenda item 5 (d)), took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 159–165, 169–174 and 177–179 below are substantially identical to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 156–162, 166–171 and 177–179, and the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), paragraphs 128–134, 138–143 and 147–149.
- 159. Introducing the matter, the President said that technical assistance was essential to the successful implementation of the conventions, that the regional centres of the Basel and Stockholm conventions and the regional and subregional offices of UNEP and FAO continued to play a vital role

in its delivery and that it was one of the areas of work that benefited most from enhanced coordination and cooperation among the three conventions. The main matters to be considered at the current meetings were technical assistance in general, including the technical assistance plan prepared by the Secretariat for the delivery of technical assistance under all three conventions; the Basel and Stockholm convention regional centres; and the implementation of decision V/32 of the Conference of the Parties to the Basel Convention, on the enlargement of the scope of the Trust Fund to Assist Developing and Other Countries in Need of Technical Assistance in the Implementation of the Basel Convention.

1. Technical assistance

- 160. The representative of the Secretariat introduced the matter, outlining the information in document UNEP/CHW.13/17-UNEP/FAO/RC/COP.8/17-UNEP/POPS/COP.8/17 and recalling that since the 2013 meetings of the conferences of the Parties the Secretariat had implemented a common technical assistance and capacity-building programme for the three conventions aimed at avoiding duplication and thus increasing the effectiveness of delivered assistance. Based on past experience and information provided by Parties about their needs, the Secretariat had developed a four-year technical assistance plan to replace the current biennial programme with a view to allowing for improved impact assessment, monitoring and evaluation while advancing capacity development and assisting Parties to address their needs in a strategic, systematic and forward-looking manner.
- 161. In the ensuing discussion, several representatives said that technical assistance and technology transfer were crucial to implementation of the three conventions by developing country Parties and Parties with economies in transition. Examples of the achievements to which technical assistance had contributed included regulation and standard-setting relating to polychlorinated biphenyls (PCBs) under the Stockholm Convention and data collection for the preparation of a proposal on carbofuran as a severely hazardous pesticide formulation under the Rotterdam Convention. Several representatives said that there was a need for increased technical assistance, in relation, for example, to dealing with new industrial persistent organic pollutants, e-waste and plastics, including microplastics in the marine environment.
- 162. There was general support for the Secretariat's four-year technical assistance plan, including its cross-cutting nature in respect of many issues. Several representatives, however, suggested changes to the draft decision in document UNEP/CHW.13/17-UNEP/FAO/RC/COP.8/17-UNEP/POPS/COP.8/17, and others said that they would like to discuss the matter further in a contact group.
- 163. Several representatives said that there was a need for more resources for technical assistance, from both existing and new sources, to ensure that the plan could be implemented successfully. Their proposals included leveraging public-private partnerships; drawing on the expertise and resources of implementing institutions such as the United Nations Development Programme (UNDP) and the United Nations Industrial Development Organization (UNIDO); and ensuring coordinated programme planning with international organizations implementing programmes on chemicals and wastes.
- 164. One representative proposed that the technical assistance plan should build on the Bali Strategic Plan for Technology Support and Capacity-building and the Rio Declaration on Environment and Development and that it should incorporate the principle of common but differentiated responsibilities. Several representatives made comments in relation to training support, calling for more dynamic, hands-on learning as opposed to a traditional workshop format; saying that there was a need for more research, training, education and scientific and technical support in specialized fields relevant to implementation of the conventions; and calling for more support on reporting, which was currently only available from the Secretariat, which had limited time and capacity to provide it. One representative said that there was a need to ensure that the plan was a living document that was updated and adjusted as needed and implemented according to the resources available.
- 165. Following the discussion, the conferences of the Parties decided that the contact group on technical assistance and financial resources established as described in section V E 3 below (para. 198) should consider the matter further.
- 166. Subsequently the Conference of the Parties to the Rotterdam Convention adopted a draft decision submitted by the contact group.
- 167. Decision RC-8/9, on technical assistance, as adopted by the Conference of the Parties to the Rotterdam Convention, is set out in annex I to the present report.
- 168. In addition the conferences of the Parties to the Basel and Stockholm conventions adopted decisions on technical assistance that were substantially identical to the decision adopted by the

Conference of the Parties to the Rotterdam Convention. Decisions BC-13/11 (sections I and IV) and SC-8/15 (sections I and III), as adopted by the conferences of the Parties to the Basel and Stockholm conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), respectively.

2. Regional centres

- 169. The representative of the Secretariat introduced the matter, outlining the information in documents UNEP/CHW.13/11 and UNEP/POPS/COP.8/16/Rev.1, on the activities undertaken by the regional centres of the Basel and Stockholm conventions, the Secretariat and others in response to the requests of the conferences of the Parties to the two conventions, and highlighting information about the number of regional centres that had submitted their business plans, work plans and activity reports, the 2015 and 2016 annual joint meetings of the directors of the regional centres under the two conventions and the status of framework agreements with a number of regional centre host country Governments, including the decision by the Government of El Salvador to terminate the framework agreement between the Secretariat of the Basel Convention and the Government of El Salvador.
- 170. In the ensuing discussion several members said that regional centres played a critical role in enabling the sound management of chemicals and wastes and that the need for support provided by the centres was increasing with the constant development of new products. It was also said that the regional centres should take into account the specific requirements for technical assistance identified at the current meetings when developing their work plans.
- 171. One representative said that the regional centres could play a role in collecting and verifying information not only on best available technologies but also on the operators using such technologies, with the aim of developing a register to assist countries in stemming the spread of dubious technologies.
- 172. Several representatives said that there was a need to ensure that the regional centres had the resources that they needed to support Parties. In that respect, several representatives expressed concern at the closure of a regional centre in the Latin America region, saying that others should be saved from the same fate. In that context the representative of Brazil proposed that the Stockholm Convention regional centre based in the environment agency of the State of São Paulo, (Companhia do Tecnologia do Saneamento Ambiental do Estado de São Paulo), which had also developed a number of initiatives in support of the Basel Convention, become a regional centre for the latter convention. The representatives of several countries hosting existing regional centres expressed their continued support for those centres.
- 173. One representative said that language-related difficulties prevented her country from benefiting fully from the services of the centre in her region, and she proposed that the regional centre located in Moscow be strengthened to allow it to support countries from the Commonwealth of Independent States.
- 174. Following the discussion, the conferences of the Parties to the Basel and Stockholm conventions decided that the contact group on technical assistance and financial resources established as described in section V E 3 below (para. 198) should consider the matter further.
- 175. Subsequently the conferences of the Parties to the Basel and Stockholm conventions adopted, pending confirmation from the contact group on budget matters that any activities contemplated by the decisions had been taken into account in the proposed programme of work and budget for the biennium 2018–2019, draft decisions on Basel Convention regional and coordinating centres and on Stockholm convention regional and subregional centres for capacity-building and the transfer of technology, as section II of decisions BC-13/11 and SC-8/15, respectively, on technical assistance.
- 176. Decisions BC-13/11 (section II) and SC-8/15 (section II), as adopted by the conferences of the Parties to the Basel and Stockholm conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), respectively.
- 3. Implementation of decision V/32 on the enlargement of the scope of the Trust Fund to Assist Developing and Other Countries in Need of Technical Assistance in the Implementation of the Basel Convention
 - 177. In the interests of time, the Conference of the Parties to the Basel Convention decided not to discuss the implementation of decision V/32, on the enlargement of the scope of the Trust Fund to

Assist Developing and Other Countries in Need of Technical Assistance in the Implementation of the Basel Convention, in plenary. Instead the matter would be taken up directly by the contact group on technical assistance and financial resources established as described in section V E 3 below (para. 198).

- 178. Following the discussion in the contact group the Conference of the Parties to the Basel Convention adopted the draft decision on the matter set out in document UNEP/CHW.13/12, without change, as section III of decision BC-13/11, on technical assistance.
- 179. The decision, as adopted by the Conference of the Parties to the Basel Convention, is set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28).

E. Financial resources

- 180. The discussion summarized in the present section, on financial resources (agenda item 5 (e)), took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 181–198 below are substantially identical to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 231–248, and the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), paragraphs 151–168.
- 181. Under the item the conferences of the Parties first considered issues relating to the financial mechanism of the Stockholm Convention and second the integrated approach to financing for chemicals and wastes and the Special Programme to support institutional strengthening at the national level for the implementation of the Basel, Rotterdam and Stockholm conventions, the Minamata Convention and the Strategic Approach.

1. Financial mechanism of the Stockholm Convention

- 182. The representative of the Secretariat introduced the matter, outlining the information in document UNEP/POPS/COP.8/18 and noting that it comprised five issues: first, guidance from the Conference of the Parties to the financial mechanism; second, the fourth review of the financial mechanism; third, cooperation between the Secretariat and the GEF secretariat and reciprocal representation at relevant meetings; fourth, the assessment of the funding needed by developing countries and countries with economies in transition to implement the Convention during the period 2018–2022; and fifth, reporting by the GEF Council to the Conference of the Parties.
- 183. Regarding the first issue, he said that a non-exhaustive list of proposed elements of guidance to the financial mechanism was before the Conference of the Parties for consideration in the draft decision set out in the document, along with newly proposed guidance that took into account proposed programme priorities for 2018–2022 and that was based on the recommendations of the effectiveness evaluation committee. The Conference of the Parties, he added, might wish to consider further additional guidance to the financial mechanism. For the second and third issues, the Conference of the Parties had before it a draft report on the fourth review of the financial mechanism (UNEP/POPS/COP.8/INF/30) prepared by an independent evaluator, and information on cooperation between the Secretariat and the GEF secretariat (UNEP/POPS/COP.8/18, paras. 22–27) and the GEF co-financing policy (UNEP/POPS/COP.8/INF/29). With regard to the fourth issue, document UNEP/POPS/COP.8/INF/32 contained a full report on the assessment of funding needs prepared by two independent experts. Echoing the President, he added that the outcomes of the deliberations on the assessment of funding needs for the period 2018–2022, the additional guidance to the financial mechanism and the fourth review of the financial mechanism would constitute important inputs for the negotiations on the seventh replenishment of the GEF trust fund.
- 184. Finally, regarding reporting by the GEF Council to the Conference of the Parties, he noted that a report by the GEF Council was before the Parties in document UNEP/POPS/COP.8/INF/28. Following the Secretariat's introduction, the representative of GEF introduced the report, which provided information on GEF activities between 1 July 2014 and 30 June 2016 and how GEF had responded to existing guidance from the Conference of the Parties. During the period, she noted, GEF had provided funding of approximately \$187 million, leveraging an additional \$753 million from private sector and other sources, for 81 projects in the chemicals and wastes focal area, including \$131 million for projects aimed at reducing human exposure to persistent organic pollutants. More than 45 per cent of the approved projects for the sixth replenishment period related to chemicals, including projects relating to unintentionally produced persistent organic pollutants, PCBs, persistent organic pollutant pesticides, perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl

fluoride, effectiveness evaluation, national implementation plans, capacity-building, green chemistry, reducing chemical emissions in the context of sustainable urban growth and chemicals management in the industrial sector. In the more than 15 years of implementation of the Stockholm Convention, GEF had provided over \$1 billion in resources and leveraged an additional \$3 billion in co-financing for implementation of the Convention. Evaluations of those projects, including the fourth review of the financial mechanism, had shown that GEF support was exceeding performance targets with positive impacts, but GEF looked forward to working with all partners to further improve its operations during its seventh replenishment period.

- 185. In the ensuing discussion, several representatives, including one speaking on behalf of a group of countries, indicated their general support for the draft decision, although a number, including one speaking on behalf of a group of countries, said that they wished to propose minor changes or additions.
- 186. A number of representatives said that predictable funding was critical to the successful implementation of the conventions. One suggested that new sources of predictable, sustainable and adequate financing would need to be identified due to the interim nature of the role of GEF with regard to the financial mechanism. He also said that the approach of GEF was politicized and should be more technical. Another representative said that GEF should improve access to funding by allowing various national agencies to participate and to bear in mind the practices of other international financial institutions with regard to access to funding.
- 187. Several representatives said that there was a need for diversified sources of funding. A number of representatives said that the private sector should play a greater role in financing, with one calling for the development of strategies in that regard. Another said that private sector participation should form part of a broader co-financing effort and asked that GEF support developing countries in identifying and mobilizing co-financing for implementation projects. He also encouraged GEF to seek alternative international funding sources that could allow for joint efforts to achieve the 2030 Agenda for Sustainable Development in an integrated manner. Another representative said that in addition to diversified sources of funding, countries with economies in transition needed access to very low interest loans.
- 188. One representative, saying that GEF was a crucial tool for catalysing resource mobilization at the domestic level, expressed concern about a decision taken at the latest meeting of the GEF Council regarding a possible reduction of resources as a result of exchange rate fluctuations and the possibility that such a situation might recur during the seventh replenishment period.
- 189. One representative called for countries to more accurately assess both the volumes of persistent organic pollutants subject to ultimate disposal and the financial means required for that, at the same time expressing appreciation for the needs assessment work done by the Secretariat and other stakeholders.
- 190. Following the discussion, the Conference of the Parties to the Stockholm Convention decided that the contact group on technical assistance and financial resources established as described in section V E 3 below (para. 198) should consider the matter further.
- 191. Subsequently the Conference of the Parties to the Stockholm Convention adopted a draft decision prepared by the contact group.
- 192. Decision SC-8/16, on the financial mechanism of the Stockholm Convention, as adopted by the Conference of the Parties to the Stockholm Convention, is set out in annex I to the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32).

2. Integrated approach and Special Programme

193. The representative of the Secretariat introduced the matter, outlining the information in document UNEP/CHW.13/INF/40-UNEP/FAO/RC/COP.8/INF/44-UNEP/POPS/COP.8/INF/35 and reporting that, in accordance with decisions BC-12/18, RC-7/8 and SC-7/22, the Secretariat had continued to take the integrated approach as a reference in its mandated activities and its support for the Parties to the three conventions and had participated in the internal task team of the Special Programme to support institutional strengthening at the national level for implementation of the Basel, Rotterdam and Stockholm conventions, the Minamata Convention and the Strategic Approach, including by attending the first two meetings of the Special Programme executive board as an observer.

- 194. The representative of UNEP then reported on the implementation of the Special Programme, outlining the information in document UNEP/CHW.13/INF/41-UNEP/FAO/RC/COP.8/INF/45-UNEP/POPS/COP.8/INF/36.
- 195. The conferences of the Parties were invited to take note of the information provided.
- 196. In the ensuing discussion a number of representatives, speaking on behalf of groups of countries, praised the achievements of the Special Programme to date. Along with the fact that GEF was already taking into account possible co-benefits for the implementation of the Basel and Rotterdam conventions, said one, the implementation of the Special Programme showed the good progress made in the external financing component of the integrated approach. He called for further progress in the other two components, namely, mainstreaming and private sector involvement, pointing to the recent adoption by several Parties of legislation imposing taxes and levies in accordance with the polluter pays principle as an example to be followed. Another representative called for continued improvement of the programme, in particular by including a needs assessment to ensure that country needs and stated goals were met and by raising the current cap on funding.
- 197. The representative of India said that efficient implementation of the conventions required the dissemination of appropriate technologies to developing countries, supported by effective capacity-building and technical assistance. Consequently, his delegation intended to introduce a conference room paper proposing a framework for the development of a mechanism along the lines of the technology facilitation mechanism under the 2030 Agenda for Sustainable Development. A second representative, speaking on behalf of a group of countries, supported the view that technology transfers were essential and that the technology facilitation mechanism was a good means of facilitating them but said that the mobilization of new, additional and predictable financial resources remained key to the implementation of the conventions in developing countries.

3. Establishment of a contact group

198. Following the discussion in section 2 above, the conferences of the Parties established a joint contact group on technical assistance and financial resources co-chaired by Ms. Leticia Reis de Carvalho (Brazil) and Mr. Niko Urho (Finland). The group was mandated to prepare for consideration at a subsequent session of the meetings draft decisions on technical assistance using the draft decision in document UNEP/CHW.13/17-UNEP/FAO/RC/COP.8/17-UNEP/POPS/COP.8/17 as a starting point; on Basel and Stockholm convention regional centres using the draft decisions in documents UNEP/CHW.13/11 and UNEP/POPS/COP.8/16/Rev.1; on the implementation of decision V/32 using the draft decision in document UNEP/CHW.13/12; on the financial mechanism of the Stockholm Convention using the draft decision in document UNEP/POPS/COP.8/18. The group was also tasked with considering the integrated approach and Special Programme and the conference room paper on the financial mechanism for technology transfer to be submitted by India.

F. International cooperation and coordination

- 199. The discussion summarized in the present section, on international cooperation and coordination (agenda item 5 (f)), took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 200–211 below are substantially identical to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 207–218, and the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), paragraphs 224–235.
- 200. The representative of the Secretariat introduced the documents relevant to the sub-item, which outlined the activities of the Secretariat in respect of international cooperation and coordination undertaken in response to decisions BC-12/17, RC-7/9 and SC-7/27, including contributions that the three conventions could make to implementation of the 2030 Agenda, cooperation with UNEP in the implementation of resolutions adopted by the United Nations Environment Assembly and cooperation with other entities both within and beyond the chemicals and waste cluster. She also introduced information documents setting out reports submitted by the Executive Director of UNEP, the secretariat of the Strategic Approach and the interim secretariat of the Minamata Convention. Observing that the aim of cooperation was to enhance the effectiveness of the implementation of the conventions and to increase efficiency and effectiveness in the use of resources and expertise, the President opened the floor, suggesting that Parties, building upon the draft decision in document UNEP/CHW.13/19-UNEP/FAO/RC/COP.8/20-UNEP/POPS/COP.8/24, might wish to consider additional efforts under the conventions to support achievement of the Sustainable Development Goals.

- In the ensuing discussion there was general consensus that enhanced international cooperation and coordination were essential to the implementation of the three conventions and the 2030 Agenda for Sustainable Development. One representative said that the management of chemicals and wastes under the three conventions was aligned with the spirit of the Sustainable Development Goals, particularly goal 12, and with the three pillars of sustainable development. Another representative said that the 2030 Agenda included many Sustainable Development Goals related to the environmentally sound management of chemicals and wastes and that their associated targets could only be achieved through the effective and efficient use of resources through enhanced cooperation and collaboration involving all actors and that the three conventions had already demonstrated what could be achieved through a synergistic approach. Another representative said that the complexity and ambition of the 2030 Agenda should not divert attention from the universality and interdependence of the Sustainable Development Goals. One representative said that synergies between the three conventions and other United Nations entities should lead to actual direct cooperation rather than just the identification of areas of mutual interest. Another representative said that it was essential that countries fully comply with their obligations under the chemicals and waste conventions as they committed to delivering on the Sustainable Development Goals.
- 202. Several representatives offered proposals for further elements that might be included in the draft decision. The representative of the European Union and its member States, introducing a conference room paper on the matter, said that reference should be made to the adoption of the 2030 Agenda for Sustainable Development, integration of the sound management of chemicals and waste in a number of the Sustainable Development Goals and work under the Strategic Approach. Another representative said that the draft decision should draw on the work of other entities, such as UNDP and FAO, to assist Governments in mainstreaming sound chemicals and waste management into their development activities. Another representative said that the draft decision should include those organizations and entities with which the Secretariat was requested to enhance cooperation and coordination, including the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes.
- 203. Several representatives commented on the balance between obligations under international agreements and the right of individual countries to follow their own development agendas. One representative said that the Sustainable Development Goals were aspirational rather than binding and that countries retained flexibility regarding the development of national indicators. While synergies with the Sustainable Development Goals were to be welcomed, linkages with national reporting related to the three conventions should be avoided. Another representative called for further study of the implications for Parties of bringing the Sustainable Development Goals into the domain of the three conventions. Another representative stressed the voluntary nature of the national review processes that would form part of the follow-up and review mechanisms of the 2030 Agenda.
- 204. One representative, speaking on behalf of a group of countries, encouraged Parties and regional and intergovernmental organizations with experience in implementing measures in relation to the Sustainable Development Goals to provide inputs to the Secretariat for subsequent circulation among the Parties to guide them in implementing the three conventions within the context of the 2030 Agenda.
- 205. The representative of UNEP highlighted some issues discussed in the Executive Director's report to the conferences of the Parties (UNEP/CHW.13/INF/56-UNEP/FAO/RC/COP.8/INF/46-UNEP/POPS/COP.8/INF/59), including the outcomes of the second session of the United Nations Environment Assembly and priority matters that would be considered during the third session, the theme of which "pollution-free planet" was closely aligned with the objectives of the three conventions. In addition, he said, several of the elements of the UNEP programme of work provided opportunities for integration with work under the three conventions.
- 206. The representative of the interim secretariat of the Minamata Convention and the secretariat of the Strategic Approach highlighted the main areas of cooperation between those entities and the three conventions, particularly in the context of the lead-up to the first meeting of the Conference of the Parties to the Minamata Convention, the efforts to achieve the 2020 goal for sound chemicals management and the recent launch of an intersessional process for preparing recommendations on the sound management of chemicals and waste beyond 2020.
- 207. The representative of UNIDO gave a statement on the Joint Declaration of Intent on Chemical Leasing signed in November 2016 between UNIDO, Austria, Germany and Switzerland. Chemical leasing, he said, was a new and innovative business model that could contribute to inclusive and sustainable industrial development and sound chemicals management. The initiative was closely aligned with the principles of the 2030 Agenda and the objectives of the three conventions and could

contribute to and stimulate the engagement of industry and the public sector to translate those objectives into business opportunities.

- 208. The representative of the Economic Commission for Europe gave an update on activities under the Convention on Long-range Transboundary Air Pollution, which was the first convention to deal with air pollution on a regional basis. Its protocol on persistent organic pollutants currently covered 16 substances. The convention gave a prominent role to science, not just in providing information but also in guiding policy. The protocol's long-term strategy called for greater linkages with the work of the Stockholm Convention.
- 209. The representative of the United Nations Environment Management Group gave a report on the group's work to enhance coordination in the United Nations system to address the global challenge of e-waste. The Environment Management Group had established an Inter-agency Issue Management Group on Tackling E-waste in 2016 to facilitate further synergies, including with the Basel, Rotterdam and Stockholm conventions, in promoting e-waste prevention and environmentally sound management. A draft report had been prepared by the inter-agency issue management group on a coordinated approach to e-waste management in the United Nations system.
- 210. Following the discussion, the President noted that the proposals referred to in footnote 16 of document UNEP/CHW.13/19-UNEP/FAO/RC/COP.8/20-UNEP/POPS/COP.8/24 could be further considered by the Conference of the Parties to the Basel Convention during its discussion of national reporting.
- 211. The conferences of the Parties decided that the joint contact group on the review of the synergies arrangements and other joint issues, established as described in section VI A below (para. 221), should consider the matter further with the aim of preparing for their consideration at a subsequent joint session a draft decision based on the draft decision in document UNEP/CHW.13/19-UNEP/FAO/RC/COP.8/20-UNEP/POPS/COP.8/24, taking into account the discussion on the matter and the content of the conference room paper presented by the European Union and its member States.
- 212. Following the work of the contact group the Conference of the Parties to the Rotterdam Convention adopted a revised version of the draft decision set out in document UNEP/CHW.13/19-UNEP/FAO/RC/COP.8/20-UNEP/POPS/COP.8/24 prepared by the contact group.
- 213. Decision RC-8/10, on international cooperation and coordination, as adopted by the Conference of the Parties to the Rotterdam Convention, is set out in annex I to the present report.
- 214. In addition the conferences of the Parties to the Basel and Stockholm conventions adopted decisions on international cooperation and coordination that were substantially identical to the decision adopted by the Conference of the Parties to the Rotterdam Convention. Decisions BC-13/16 and SC-8/20, as adopted by the conferences of the Parties to the Basel and Stockholm conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), respectively.
- 215. During the consideration of the decision, one representative said that while he supported its adoption he regretted that neither it nor document UNEP/CHW.13/19-UNEP/FAO/RC/COP.8/20-UNEP/POPS/COP.8/24 made reference to the Samoa Pathway. Such a reference would facilitate linkages between secretariats of multilateral environmental agreements, such as the Secretariat of the Basel, Rotterdam and Stockholm conventions, small island developing States and the wider sustainable development agenda, in the light of a report by the United Nations Joint Inspection Unit on the United Nations system and the implementation of the Samoa Pathway.

VI. Enhancing cooperation and coordination among the Basel, Rotterdam and Stockholm conventions (agenda item 6)

216. The discussion summarized in the present section, on enhancing cooperation among the Basel, Rotterdam and Stockholm conventions (agenda item 6), took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 217–221, 225–226, 230–231, 235–236 and 240–241 below are substantially identical to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 260–264, 268–269, 273–274, 278–279 and 283–284, and the report of the Conference of the Parties to the Stockholm

Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), paragraphs 241–245, 249-250, 254–255, 259–260 and 264–265.

217. Introducing the item, the President said that it encompassed five topics: the reviews of the synergies arrangements between the Basel, Rotterdam and Stockholm conventions; the clearing-house mechanism for information exchange; mainstreaming gender; illegal traffic and trade; and "from science to action". Each topic would be discussed separately.

A. Review of the synergies arrangements

- The representative of the Secretariat introduced the matter, outlining the information in document UNEP/CHW.13/22-UNEP/FAO/RC/COP.8/21-UNEP/POPS/COP.8/25 and recalling that by decisions BC-12/20, RC-7/10 and SC-7/28 the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions had mandated three reviews of the three conventions' synergies arrangements: a review of the matrix-based management approach and organization of the Secretariat; a review of the proposals set out in the note by the Secretariat on the organization and operation of the part of the Rotterdam Convention Secretariat hosted by FAO to enhance synergies arrangements; and a review of the overall synergies arrangements, including joint activities and joint managerial functions. A steering committee, comprising the Presidents of the three conferences of the Parties, the executive secretaries and Deputy Executive Secretary of the three conventions, the Corporate Services Division of UNEP and the Evaluation Office of UNEP, had overseen the conduct of the three reviews by an independent consulting company. Reports on the results of the reviews, including 40 recommendations on various thematic issues directed to various audiences, were before the conferences of the Parties in documents UNEP/CHW.13/INF/44-UNEP/FAO/RC/COP.8/INF/30-UNEP/POPS/COP.8/INF/47, UNEP/CHW.13/INF/45-UNEP/FAO/RC/COP.8/INF/31-UNEP/POPS/COP.8/INF/48 and UNEP/CHW.13/INF/43-UNEP/FAO/RC/COP.8/INF/29-UNEP/POPS/COP.8/INF/46, respectively, and a compilation of the recommendations and actions proposed in response thereto was set out in document UNEP/CHW.13/22/Add.1-UNEP/FAO/RC/COP.8/21/Add.1-UNEP/POPS/COP.8/25/Add.1.
- 219. In the ensuing discussion several representatives, including a number speaking on behalf of groups of countries, welcomed the reviews, saying that the synergies process had provided important benefits for the operation and management of the Secretariat and the implementation of the conventions, including in advancing the environmentally sound management of chemicals and wastes throughout their life cycles. Many said that the synergies process and its benefits should be focused on assisting countries to implement key provisions of the conventions more effectively, including with regard to, inter alia, reporting, technology transfer, financial resources, administrative costs and burdens and the environmentally sound management of chemicals and wastes. Several representatives, including one speaking on behalf of a group of countries, expressed support for the intent of the draft decision on the matter, with several representatives introducing proposals for amendments and calling for their discussion in a contact group. The representative of the European Union and its member States introduced a conference room paper on the subject and the representative of Kenya, speaking on behalf of the countries of his region, indicated that those countries would also submit a conference room paper.
- 220. Some representatives underscored what they said were the potential advantages of including the Minamata Convention in aspects of the synergies arrangements, including potentially co-locating its secretariat with, or integrating its secretariat into, the Secretariat of the Basel, Rotterdam and Stockholm conventions, and expressed support for requesting the Secretariat to examine the potential impact of, and potential modalities for, doing so. While only the parties to the Minamata Convention could take decisions regarding their secretariat, and nothing that occurred at the current meetings would prejudge such decisions, it would be appropriate to signal to the parties to the Minamata Convention that the Parties to the Basel, Rotterdam and Stockholm conventions were open to exploring the issue. Several other representatives said that it was premature to hold formal discussions of synergies with the Minamata Convention before the Conference of the Parties to that convention had discussed issues related to its secretariat at its first meeting.
- 221. Following the discussion the conferences of the Parties established a joint contact group on the review of the synergies arrangements and other joint issues, co-chaired by Ms. Jane Stratford (United Kingdom of Great Britain and Northern Ireland) and Mr. Nguyen Anh Tuan (Viet Nam), to prepare for their consideration at a subsequent joint session a draft decision using the draft decision in document UNEP/CHW.13/22-UNEP/FAO/RC/COP.8/21-UNEP/POPS/COP.8/25 as a starting point and taking into account the conference room papers introduced relevant to the issue and the discussion in plenary.

- 222. Subsequently the Conference of the Parties to the Rotterdam Convention adopted a draft decision prepared by the contact group, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 223. Decision RC-8/11, on enhancing cooperation and coordination among the Basel, Rotterdam and Stockholm conventions, as adopted by the Conference of the Parties to the Rotterdam Convention, is set out in annex I to the present report.
- 224. In addition the conferences of the Parties to the Basel and Stockholm conventions adopted decisions on enhancing cooperation and coordination among the Basel, Rotterdam and Stockholm conventions that were substantially identical to the decision adopted by the Conference of the Parties to the Rotterdam Convention. Decisions BC-13/18 and SC-8/21, as adopted by the conferences of the Parties to the Basel and Stockholm conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), respectively.

B. Clearing-house mechanism

- 225. The representative of the Secretariat introduced the matter, outlining the information in document UNEP/CHW.13/23-UNEP/FAO/RC/COP.8/22-UNEP/POPS/COP.8/26 and recalling that by decisions BC-12/21, RC-7/11 and SC-7/29 the conferences of the Parties had taken note of the proposed joint clearing-house mechanism strategy prepared by the Secretariat, invited Parties and others to comment on the strategy and requested the Secretariat to make information in 11 priority thematic areas available through the clearing-house mechanism and to revise the proposed strategy. A revised version of the proposed strategy (UNEP/CHW.13/INF/47-UNEP/FAO/RC/COP.8/INF/33-UNEP/POPS/COP.8/INF/50) and a draft biennial workplan prepared by the Secretariat based on the draft revised workplan (UNEP/CHW.13/INF/48-UNEP/FAO/RC/COP.8/INF/39-UNEP/POPS/COP.8/INF/43) were before the conferences of the Parties.
- 226. Following the introduction, the conferences of the Parties decided that the contact group on the review of the synergies arrangements and other joint issues established as described in section VI A above (para. 221) should consider the matter further with the aim of preparing a draft decision for their consideration at a subsequent joint session using the draft decision in document UNEP/CHW.13/23-UNEP/FAO/RC/COP.8/22-UNEP/POPS/COP.8/26 as a starting point and taking into account a conference room paper previously submitted by the European Union and its member States.
- 227. Subsequently the Conference of the Parties to the Rotterdam Convention adopted a draft decision prepared by the contact group, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 228. Decision RC-8/12, on the clearing-house mechanism for information exchange, as adopted by the Conference of the Parties to the Rotterdam Convention, is set out in annex I to the present report.
- 229. In addition the conferences of the Parties to the Basel and Stockholm conventions adopted decisions on the clearing-house mechanism that were substantially identical to the decision adopted by the Conference of the Parties to the Rotterdam Convention. Decisions BC-13/19 and SC-8/22, as adopted by the conferences of the Parties to the Basel and Stockholm conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), respectively.

C. Mainstreaming gender

- 230. In the discussion of the sub-item, one representative said that the issue of mainstreaming gender was important both to the operation and effectiveness of the Basel, Rotterdam and Stockholm conventions and the achievement of the Sustainable Development Goals and offered several amendments to the relevant draft decision. A number of other representatives said that those amendments and those in a conference room paper submitted by the European Union and its member States warranted further discussion.
- 231. The conferences of the Parties decided that the contact group on the review of the synergies arrangements and other joint issues established as described in section VI A above (para. 221) should consider the matter further with the aim of preparing a draft decision for their consideration at a subsequent joint session using the draft decision in document UNEP/CHW.13/20-

UNEP/FAO/RC/COP.8/19-UNEP/POPS/COP.8/19 as a starting point and taking into account the discussion in plenary and a conference room paper previously submitted by the European Union and its member States.

- 232. Subsequently the Conference of the Parties to the Rotterdam Convention adopted a draft decision prepared by the contact group, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 233. Decision RC-8/13, on mainstreaming gender, as adopted by the Conference of the Parties to the Rotterdam Convention, is set out in annex I to the present report.
- 234. In addition the conferences of the Parties to the Basel and Stockholm conventions adopted decisions on mainstreaming gender that were substantially identical to the decision adopted by the Conference of the Parties to the Rotterdam Convention. Decisions BC-13/20 and SC-8/23, as adopted by the conferences of the Parties to the Basel and Stockholm conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), respectively.

D. Illegal traffic and trade

- 235. The representative of the Secretariat introduced the matter, outlining the information in document UNEP/CHW.13/24-UNEP/FAO/RC/COP.8/23-UNEP/POPS/COP.8/27 and recalling that at their 2015 meetings the conferences of the Parties had requested the Secretariat to prepare recommendations on possible synergies between the Basel, Rotterdam and Stockholm conventions in preventing and combating illegal traffic and trade in hazardous chemicals and wastes, building on lessons learned under the Basel Convention. In the absence of financial support for such work the Secretariat had developed a number of such recommendations based on an analysis of possible synergies in preventing and combating illegal traffic and trade in hazardous chemicals and wastes (UNEP/CHW.12/INF/51) that it had prepared for the consideration of the Conference of the Parties to the Basel Convention at its 2015 meeting.
- 236. Following the introduction the conferences of the Parties decided that the contact group on the review of the synergies arrangements and other joint issues established as described in section VI A above (para. 221) should consider the matter further with the aim of preparing a draft decision for their consideration at a subsequent joint session using the draft decision in document UNEP/CHW.13/24-UNEP/FAO/RC/COP.8/23-UNEP/POPS/COP.8/27 as a starting point and taking into account a conference room paper previously submitted by the European Union and its member States.
- 237. Subsequently the Conference of the Parties to the Rotterdam Convention adopted a draft decision prepared by the contact group, as orally amended and pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 238. Decision RC-8/14, on synergies in preventing and combating illegal traffic and trade in hazardous chemicals and wastes, as adopted by the Conference of the Parties to the Rotterdam Convention, is set out in annex I to the present report.
- 239. In addition the conferences of the Parties to the Basel and Stockholm conventions adopted decisions on synergies in preventing and combating illegal traffic and trade in hazardous chemicals and wastes that were substantially identical to the decision adopted by the Conference of the Parties to the Rotterdam Convention. Decisions BC-13/21 and SC-8/24, as adopted by the conferences of the Parties to the Basel and Stockholm conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), respectively.

E. From science to action

240. The representative of the Secretariat introduced the matter, outlining the information in document UNEP/CHW.13/25-UNEP/FAO/RC/COP.8/24-UNEP/POPS/COP.8/28 and recalling that at their 2015 meetings the conferences of the Parties had requested the Secretariat to develop a road map for further engaging Parties and other stakeholders in informed dialogue for enhanced science-based action in the implementation of the conventions at the regional and national levels, taking into account the roles of the scientific bodies of the conventions. In response to the decision the Secretariat, in consultation with the experts of the scientific bodies of the conventions, regional centres and other

relevant stakeholders and taking into account the results of an online survey of Parties and other stakeholders, had prepared a draft road map for consideration by the conferences of the Parties at the current meetings. The draft roadmap was set out in annex I to document UNEP/CHW.13/INF/50-UNEP/FAO/RC/COP.8/INF/35-UNEP/POPS/COP.8/INF/52 and a summary of the results of the online survey in annex II to the same document.

- 241. Following the introduction, the conferences of the Parties decided that the contact group on the review of the synergies arrangements and other joint issues established as described in section VI A above (para. 221) should consider the matter further with the aim of preparing a draft decision for their consideration at a subsequent joint session using the draft decision in document UNEP/CHW.13/25-UNEP/FAO/RC/COP.8/24-UNEP/POPS/COP.8/28 as a starting point and taking into account a conference room paper previously submitted by the European Union and its member States.
- 242. Subsequently the Conference of the Parties to the Rotterdam Convention adopted a draft decision prepared by the contact group, pending confirmation from the contact group on budget matters that any activities contemplated by the decision had been taken into account in the proposed programme of work and budget for the biennium 2018–2019.
- 243. Decision RC-8/15, on from science to action, as adopted by the Conference of the Parties to the Rotterdam Convention, is set out in annex I to the present report.
- 244. In addition the conferences of the Parties to the Basel and Stockholm conventions adopted decisions on from science to action that were substantially identical to the decision adopted by the Conference of the Parties to the Rotterdam Convention. Decisions BC-13/22 and SC-8/25, as adopted by the conferences of the Parties to the Basel and Stockholm conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), respectively.

VII. Programme of work and budget (agenda item 7)

- 245. The discussion summarized in the present section, on the programme of work and budget (agenda item 7), took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 246–252 below are replicated in the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 289–295, and in the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), paragraphs 270–276.
- 246. Introducing the item, the President said that it was key to ensuring that the 2018–2019 programmes of work included the activities and resources needed to support the implementation of the three conventions, while ensuring the continuation of the activities of the previous biennium, and that the Secretariat's staff and financial resources were managed efficiently and effectively in a way that responded to the needs of the three conventions and in conformity with United Nations policies and procedures.
- 247. The representative of the Secretariat then continued the introduction, outlining the information in document UNEP/CHW.13/26-UNEP/FAO/RC/COP.8/25-UNEP/POPS/COP.8/29 and the related tables in document UNEP/CHW.13/INF/51-UNEP/FAO/RC/COP.8/INF/36-UNEP/POPS/COP.8/INF/53. He said that in preparing the budget proposal the executive secretaries had attempted to assure the core capacity of the Secretariat to service meetings of the Parties and to provide technical assistance and scientific, technical and legal support to Parties; to strengthen the science-based action required for implementing the conventions; to ensure adequate capacity to mobilize, manage and efficiently administer resources; to prioritize core budget resources for essential activities; and to provide a conservative and realistic assessment of the requirements for 2018–2019. In response to decisions BC-12/25, RC-7/15 and SC-7/33, the Secretariat was presenting two budget scenarios for consideration by the conferences of the Parties. The first assumed zero nominal growth compared with the budget for 2016–2017, while the second represented the executive secretaries' assessment of the amount necessary to provide a similar level of services to those provided during the 2016–2017 biennium.
- 248. Regarding the implications of the two scenarios, the executive secretaries' scenario would allow the continuation of the approved programme of work for 2016–2017, along with a number of new activities, and would involve an average increase of 3 per cent across the three conventions. The zero nominal growth scenario envisaged a reduction in the core services provided by the Secretariat,

including a 42 per cent reduction in the number of translated pages of pre-session documents for the meetings of the conferences of the Parties and the replacement of face-to-face meetings of the three individual bureaux with video conferences. The scenario also envisaged that certain activities currently funded from the core budgets would henceforth be funded from the voluntarily-funded budgets. In addition, based on an analysis of recent trends in voluntary funds raised during the preceding years, the voluntary fund budget proposal was reduced by 37 per cent to reflect the shortfalls that had been experienced in recent years. It was noted that the staff requirements were the same in the two

- 249. As to the format of the budget, it had been necessary to change it owing to the adoption by the United Nations of the International Public Sector Accounting Standards (IPSAS) in 2014 and the implementation of the Umoja enterprise resource planning system in June 2015. Umoja's cost-sharing functionality enabled the equitable sharing of staff costs and savings among the conventions, and it was thus considered unnecessary to establish a single operational account for staff costs as had been recommended by the United Nations Office of Internal Oversight Services. In addition, it was noted that the detailed information previously provided in the budget proposals was available in activity fact sheets on the activities in the proposed programme of work (UNEP/CHW.13/INF/52-UNEP/FAO/RC/COP.8/INF/37-UNEP/POPS/COP.8/INF/54).
- 250. He also drew attention to the financial reports for the current biennium (UNEP/FAO/RC/COP.8/INF/38/Rev.2) and highlighted issues with regard to difficulties caused by the implementation of Umoja, growth in arrears in contributions to the Conventions, which had increased beyond the amount of the working capital reserve and a drop, as noted above, in voluntary contributions. Information on donors that had contributed to the implementation of the three conventions and the activities that they had funded was provided in document UNEP/CHW.13/INF/55-UNEP/FAO/RC/COP.8/INF/43-UNEP/POPS/COP.8/INF/57. He expressed particular thanks to those countries that had generously supported the participation of representatives of developing-country Parties and Parties with economies in transition in the current meetings.
- 251. In conclusion, he recalled that FAO continued to provide the Rotterdam Convention Secretariat with \$1.5 million per biennium and noted that during the period 1999–2015 the FAO part of the Secretariat had accumulated an unspent balance of \$994,524 that would be returned to the Rotterdam Convention general trust fund in 2017 (UNEP/FAO/RC/COP.8/INF/51).
- 252. Following the presentation the conferences of the Parties established a joint contact group on budget matters for the three conventions, chaired by Mr. Osvaldo Álvarez-Pérez (Chile). The group was asked to prepare for consideration and separate adoption by the conferences of the Parties draft programmes of work and budgets for the biennium 2018–2019 and related draft decisions.
- 253. Subsequently the Conference of the Parties to the Rotterdam Convention adopted a draft decision prepared by the contact group.
- 254. Decision RC-8/17, on the programme of work and budget for the Rotterdam Convention for the biennium 2018–2019, as adopted by the Conference of the Parties to the Rotterdam Convention, is set out in annex I to the present report.
- 255. In addition the conferences of the Parties to the Basel and Stockholm conventions adopted decisions on the programmes of work and budgets for those conventions for the biennium 2018-2019. Decisions BC-13/24 and SC-8/27, as adopted by the conferences of the Parties to the Basel and Stockholm conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), respectively.

VIII. Venue and date of the ninth meeting of the Conference of the Parties (agenda item 8)

256. The conferences of the Parties decided to hold their next meetings in Geneva from 29 April to 10 May 2019 in a format similar to that of the 2017 meetings, with joint sessions covering matters of relevance to at least two of the three conventions and separate sessions of the meetings of each of the three conferences of the Parties. They also decided that the 2019 meetings would not feature a high-level segment and that such segments would occur only at every second set of meetings of the conferences of the Parties.

IX. Other matters (agenda item 9)

A. Memorandums of understanding between UNEP, FAO and the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions

- 257. The discussion summarized in the present section, on memorandums of understanding between UNEP, FAO and the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions, took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 258–263 below are substantially identical to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 301–306, and the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), paragraphs 282–287.
- 258. Introducing the matter, the representative of the Secretariat recalled that at their previous meetings the three conferences of the Parties had reviewed draft memorandums of understanding with UNEP regarding the provision of secretariat services, following which they had, in decisions BC-12/24, RC-7/14 and SC-7/32, noted that many of the issues addressed in the draft memorandums of understanding were being discussed by a task team established by the Executive Director in response to decision 27/13 of the UNEP Governing Council, on the effectiveness of the administrative arrangements and programmatic cooperation between UNEP and the multilateral environmental agreements for which it provided secretariat services, including the Basel, Rotterdam and Stockholm conventions; decided to wait for the task team to finalize its work before taking a final decision on the memorandums of understanding; and requested the Executive Secretary to prepare, in consultation with the Executive Director and taking into account the outcome of the deliberations of the Environment Assembly at its second session, revised draft memorandums of understanding for consideration by the conferences of the Parties at their 2017 meetings. At its second session, in its resolution 2/18, the Environment Assembly, noting the work of the task team, had requested the Executive Director, in consultation with the secretariats of the UNEP-administered multilateral environmental agreements, to develop for consideration by the governing bodies of those multilateral environmental agreements a draft flexible template of options for the provision of secretariat services. In the same resolution the Environment Assembly had also requested the Executive Director, when delegating authority to the heads of the multilateral environment agreement secretariats, to maintain the flexibility required on a case-by-case basis, including reflecting the size of the secretariats.
- 259. As had been reported to and discussed with the bureaux during the intersessional period, work on the draft template of options was expected to be completed in time for consideration by the Environment Assembly at its third session, in December 2017. Accordingly, no revised draft memorandums of understanding had been prepared for consideration by the conferences of the Parties at the 2017 meetings. As to delegations of authority, a policy and framework on that subject had entered into force on 1 November 2016 and, on 30 January 2017, had been supplemented by a direct delegation of authority to the Executive Secretary of the Basel, Rotterdam and Stockholm conventions; both the policy and framework and direct delegation covered matters covered by the draft memorandums of understanding, and the full extent of that overlap would be examined during the development of the draft template of options.
- 260. The representative of UNEP then provided additional information about the delegation of authority policy and framework and related matters, confirming that UNEP had taken administrative actions pursuant to decisions BC-12/24, RC-7/14 and SC-7/32, as well as in accordance with Environment Assembly resolution 2/18, and saying that the new delegation of authority policy and framework simplified, standardized and streamlined the delegation of authority from the Executive Director to the heads of the multilateral environmental agreement secretariats and of other bodies for which UNEP provided the secretariat or secretariat functions.
- 261. In the ensuing discussion one representative, speaking on behalf of a group of countries, said that the memorandums of understanding were a long-standing issue to which his delegation attached great importance. He noted with concern that no draft memorandums of understanding were being presented for consideration and possible adoption at the current meetings.
- 262. As to the statement in paragraph 9 of document UNEP/FAO/RC/COP.8/26 that FAO saw no need for a memorandum of understanding between the Director General of FAO and the Conference of the Parties to the Rotterdam Convention "unless the Conference of the Parties to the Rotterdam Convention holds different views", he said that as reflected in its decisions RC-6/15 and RC-7/14 the

Conference of the Parties to the Rotterdam Convention had already twice determined that such a memorandum of understanding was necessary.

- 263. Following those comments, the conferences of the Parties decided that the contact group on the review of synergies arrangements and other joint issues established as described in section VI A above (para. 221) should consider the matter further with the aim of preparing draft decisions for consideration by the conferences of the Parties.
- 264. Subsequently the Conference of the Parties to the Rotterdam Convention adopted a draft decision prepared by the contact group.
- 265. Decision RC-8/16, on the draft memorandum of understanding between the Food and Agriculture Organization of the United Nations, the United Nations Environment Programme and the Conference of the Parties to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, as adopted by the Conference of the Parties to the Rotterdam Convention, is set out in annex I to the present report.
- 266. In addition, the conferences of the Parties to the Basel and Stockholm conventions adopted decisions on draft memorandums of understanding with UNEP. Decisions BC-13/23 and SC-8/26, as adopted by the conferences of the Parties to the Basel and Stockholm conventions, respectively, are set out in annex I to the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28) and in annex I to the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), respectively.

B. Admission of observers

- 267. The discussion summarized in the present section, on the admission of observers, took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 268–270 below are replicated in the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 311–313, and in the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), paragraphs 292–294.
- 268. The representative of the Secretariat introduced the matter, recalling that at their meetings in 2015 the conferences of the Parties had requested the Secretariat to maintain its current practices with regard to the admission of observers to meetings under the Conventions, including the use of the previously approved application forms to be used by bodies or agencies wishing to be represented as observers at such meetings. She then briefly outlined the procedures by which the requests were transmitted by such bodies and agencies and reviewed by the Secretariat. She also drew attention to documents UNEP/CHW.13/INF/57/Rev.1, UNEP/FAO/RC/COP.8/INF/9 and UNEP/POPS/COP.8/INF/56/Rev.1, which set out lists of the bodies and agencies requesting admission to participate in the respective meetings as observers. The attention of the meeting was drawn to a number of additional bodies and agencies that were also requesting admission to participate in the meetings as observers but that had transmitted their applications after the deadline to be included in the relevant documents.
- 269. Following the presentation one representative, asking that his statement be reflected in the current report, said that the Secretariat should strive to ensure that the participation of observers that were non-governmental organizations was in conformity with relevant United Nations resolutions.
- 270. The conferences of the Parties took note of the information provided.

C. Guidelines on conduct for meeting participants

- 271. The discussion summarized in the present section, on guidelines on conduct for meeting participants, took place during joint sessions of the thirteenth meeting of the Conference of the Parties to the Basel Convention, the eighth meeting of the Conference of the Parties to the Rotterdam Convention and the eighth meeting of the Conference of the Parties to the Stockholm Convention. Paragraphs 272–275 below are replicated in the report of the Conference of the Parties to the Basel Convention on the work of its thirteenth meeting (UNEP/CHW.13/28), paragraphs 315–318, and in the report of the Conference of the Parties to the Stockholm Convention on the work of its eighth meeting (UNEP/POPS/COP.8/32), paragraphs 298–301.
- 272. The representative of the Secretariat drew attention to two sets of guidelines that had been prepared by the Secretariat, the first on the use of cameras and audio and video recording devices at meetings of the conferences of the Parties and their subsidiary bodies and the second on the

participation of observers in such meetings. The guidelines, which had been brought to the attention of the bureaux of the three conferences of the Parties at their meetings in June and July 2016, were available on the convention websites and were reproduced in document UNEP/CHW.13/INF/58-UNEP/FAO/RC/COP.8/INF/47-UNEP/POPS/COP.8/INF/24.

- 273. In the ensuing discussion, one representative requested clarification as to whether the guidelines had been presented for adoption or approval or whether they were already applicable to all meeting participants, suggesting also that paragraph 2 of annex I to the document should be amended to prevent negotiations from being disrupted by incidents of the kind that had occurred at the current meetings, in which the representative of an observer had disseminated pictures taken during contact group discussions via social media. Another representative, speaking on behalf of a group of countries, called on all observers to respect the rules of conduct, and a number of others said that there must be serious consequences for failing to do so, including in the current case, as it threatened to undermine the spirit of mutual trust prevailing among the government representatives participating in the meetings.
- 274. The representative of the Secretariat said in response that the guidelines had been developed by the Secretariat based on the standard practices of other multilateral environmental agreements; that they had been developed in response to expressions of concern regarding similar incidents at the 2015 meetings; and that they were not intended for adoption and had been prepared by the Secretariat pursuant to its inherent prerogative and responsibility to ensure the smooth running of meetings under the conventions. The Secretariat, she concluded, considered that the incident that had taken place at the current meeting was covered by the guidelines as they stood.
- 275. The conferences of the Parties took note of the information provided.

X. Adoption of the report (agenda item 10)

276. The Conference of the Parties adopted the present report on the basis of the draft report set out in documents UNEP/CHW.13/L.1-UNEP/FAO/RC/COP.8/L.1-UNEP/POPS/COP.8/L.1, as orally amended, and UNEP/FAO/RC/COP.8/L.1/Add.1, on the understanding that the finalization of the report would be entrusted to the Rapporteur, in cooperation with the Secretariat, under the authority of the President of the Conference of the Parties.

XI. Closure of the meeting (agenda item 11)

277. Following the customary exchange of courtesies the meeting was declared closed at 6.40 p.m. on Friday, 5 May 2017.

Annex I

Decisions adopted by the Conference of the Parties at its eighth meeting

RC-8/1:	Operation of the Chemical Review Committee
RC-8/2:	Listing of carbofuran in Annex III to the Rotterdam Convention
RC-8/3:	Listing of trichlorfon in Annex III to the Rotterdam Convention
RC-8/4:	Listing of short-chain chlorinated paraffins in Annex III to the Rotterdam Convention
RC-8/5:	Listing of tributyltin compounds in Annex III to the Rotterdam Convention
RC-8/6:	Consideration of carbosulfan for listing in Annex III to the Rotterdam Convention
RC-8/7:	Consideration of fenthion (ultra low volume formulations at or above 640 g active ingredient/L) for listing in Annex III to the Rotterdam Convention
RC-8/8:	Enhancing the effectiveness of the Rotterdam Convention
RC-8/9:	Technical assistance
RC-8/10:	International cooperation and coordination
RC-8/11:	Enhancing cooperation and coordination among the Basel, Rotterdam and Stockholm conventions
RC-8/12:	Clearing-house mechanism for information exchange
RC-8/13:	Mainstreaming gender
RC-8/14:	Synergies in preventing and combating illegal traffic and trade in hazardous chemicals and wastes
RC-8/15:	From science to action
RC-8/16:	Draft memorandum of understanding between the Food and Agriculture Organization of the United Nations, the United Nations Environment Programme and the Conference of the Parties to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade
RC-8/17:	Programme of work and budget for the Rotterdam Convention for the biennium 2018–2019

RC-8/1: Operation of the Chemical Review Committee

The Conference of the Parties

- 1. *Takes note* of the information provided in the reports of the Chemical Review Committee on the work of its eleventh and twelfth meetings;¹
- 2. Appoints the 14 designated experts listed in the note by the Secretariat² to serve as members of the Committee from 1 May 2016 to 30 April 2020 and confirms the appointment of Mr. Iftikhar-ul-Hassan Shah Gilani (Pakistan) to replace his compatriot, Ms. Khalida Bashir, as a member of the Committee to serve for the balance of Ms. Bashir's term, i.e., until 30 April 2018;
- 3. *Also appoints* the 17 designated experts listed in the annex to the present decision to serve as members of the Committee with terms of office from 1 May 2018 to 30 April 2022;³
- 4. *Requests* the Chemical Review Committee at its thirteenth meeting to identify an interim chair of the Committee for its fourteenth meeting and decides to consider the election of the Chair of the Committee at its ninth meeting;
- 5. *Notes* that the Secretariat conducted an orientation workshop for new members and requests the Secretariat to continue, subject to the availability of resources, to organize further such workshops and to report on their results to the Conference of the Parties at its ninth meeting.

Annex to decision RC-8/1

Experts designated by Parties who are appointed as members of the Chemical Review Committee with terms of office commencing on 1 May 2018

African States

Mr. Victor N'Goka (Congo)

Mr. Joseph Cantamanto Edmund (Ghana)

Mr. Christian Sekomo Birame (Rwanda)

Ms. Noluzuko Gwayi (South Africa)

Asian-Pacific States

Ms. Sun Jinye (China)

Mr. Shankar Prasad Paudel (Nepal)

Mr. Iftikahr-ul-Hassan Gilani (Pakistan)

Mr. Nuansri Tayaputch (Thailand)

Central and Eastern European States

Ms. Līga Rubene (Latvia)

Ms. Dorota Wiaderna (Poland)

Latin American and Caribbean States

Ms. Cristina Alexandra Salgado Torres (Ecuador)

Mr. Suresh Amichand (Guyana)

[to be nominated]

Western European and other States

Mr. Jeffery Goodman (Canada)

Mr. Timo Seppälä (Finland)

Mr. Peter Korytár (Malta)

Mr. Peter Alistair Dawson (New Zealand)

¹ UNEP/FAO/RC/CRC.11/9 and UNEP/FAO/RC/CRC.12/9.

² UNEP/FAO/RC/CRC.12/INF/3/Rev.1.

³ The curricula vitae of these experts are set out in document UNEP/FAO/RC/COP.8/INF/52.

RC-8/2: Listing of carbofuran in Annex III to the Rotterdam Convention

The Conference of the Parties,

Noting with appreciation the work of the Chemical Review Committee,

Having considered the recommendation of the Chemical Review Committee to make carbofuran subject to the prior informed consent procedure and accordingly to list it in Annex III to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade as a pesticide,

Satisfied that all the requirements for listing in Annex III to the Rotterdam Convention have been met,

1. *Decides* to amend Annex III to the Rotterdam Convention to list the following chemical:

Chemical	Relevant CAS number(s)	Category
Carbofuran	1563-66-2	Pesticide

- 2. Also decides that this amendment shall enter into force for all Parties on 15 September 2017;
 - 3. Approves the decision guidance document on carbofuran.⁴

⁴ UNEP/FAO/RC/COP.8/14/Add.1, annex.

RC-8/3: Listing of trichlorfon in Annex III to the Rotterdam Convention

The Conference of the Parties,

Noting with appreciation the work of the Chemical Review Committee,

Having considered the recommendation of the Chemical Review Committee to make trichlorfon subject to the prior informed consent procedure and accordingly to list it in Annex III to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade,

Satisfied that all the requirements for listing in Annex III to the Rotterdam Convention have been met,

1. *Decides* to amend Annex III to the Rotterdam Convention to list the following chemical:

Chemical	Relevant CAS number(s)	Category
Trichlorfon	52-68-6	Pesticide

- 2. Also decides that this amendment shall enter into force for all Parties on 15 September 2017;
 - 3. Approves the decision guidance document on trichlorfon.⁵

⁵ UNEP/FAO/RC/COP.8/9/Add.1, annex.

RC-8/4: Listing of short-chain chlorinated paraffins in Annex III to the Rotterdam Convention

The Conference of the Parties,

Noting with appreciation the work of the Chemical Review Committee,

Having considered the recommendation of the Chemical Review Committee to make short-chain chlorinated paraffins subject to the prior informed consent procedure and accordingly to list those chemicals in Annex III to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade as industrial chemicals,

Satisfied that all the requirements for listing in Annex III to the Rotterdam Convention have been met,

1. *Decides* to amend Annex III to the Rotterdam Convention to list the following chemicals:

Chemical	Relevant CAS number(s)	Category		
Short-chain chlorinated paraffins	85535-84-8	Industrial		

- 2. Also decides that this amendment shall enter into force for all Parties on 15 September 2017;
 - 3. Approves the decision guidance document on short-chain chlorinated paraffins.⁶

⁶ UNEP/FAO/RC/COP.8/12/Add.1, annex.

RC-8/5: Listing of tributyltin compounds in Annex III to the Rotterdam Convention

The Conference of the Parties,

Noting with appreciation the work of the Chemical Review Committee,

Having considered the recommendation of the Chemical Review Committee to make tributyltin compounds subject to the prior informed consent procedure and accordingly to list those chemicals in Annex III to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade as industrial chemicals,

Satisfied that all the requirements for listing in Annex III to the Rotterdam Convention have been met,

1. *Decides* to amend Annex III to the Rotterdam Convention to list the following chemicals:

Chemical	Relevant CAS number(s)	Category
All tributyltin compounds including:		Industrial
- Tributyltin oxide	56-35-9	
- Tributyltin fluoride	1983-10-4	
- Tributyltin methacrylate	2155-70-6	
- Tributyltin benzoate	4342-36-3	
- Tributyltin chloride	1461-22-9	
- Tributyltin linoleate	24124-25-2	
- Tributyltin naphthenate	85409-17-2	

- 2. Also decides that this amendment shall enter into force for all Parties on 15 September 2017;
 - 3. Approves the revised decision guidance document on tributyltin compounds.⁷

⁷ UNEP/FAO/RC/COP.8/13/Add.1, annex.

RC-8/6: Consideration of carbosulfan for listing in Annex III to the Rotterdam Convention

The Conference of the Parties,

Noting with appreciation the work of the Chemical Review Committee in its consideration of carbosulfan, in particular the technical quality and comprehensiveness of the draft decision guidance document for that chemical,

Having considered the recommendation of the Chemical Review Committee to make carbosulfan subject to the prior informed consent procedure and accordingly to list it in Annex III to the Rotterdam Convention,

Taking into account that the Conference of the Parties is not yet able to reach consensus on whether to list carbosulfan,

Aware that the failure to reach consensus so far has caused concern in many Parties,

1. Decides that the agenda for the ninth meeting of the Conference of the Parties shall include further consideration of a draft decision to amend Annex III to the Rotterdam Convention to include the following chemical:

Chemical	Relevant CAS number(s)	Category
Carbosulfan	55285-14-8	Pesticide

- 2. Decides that the requirements set out in article 5 of the Convention, including the criteria set out in Annex II to the Convention as referred to in paragraph 6 of article 5, the requirements set out in paragraph 1 of article 7 of the Convention and the requirements set out in the first sentence of paragraph 2 of Article 7 of the Convention on the process for listing in Annex III to the Convention have been met;
- 3. Encourages Parties to make use of all available information on carbosulfan to assist others, in particular developing-country Parties and Parties with economies in transition, to make informed decisions regarding the import and management of carbosulfan and to inform other Parties of those decisions using the information exchange provisions laid down in Article 14.

RC-8/7: Consideration of fenthion (ultra low volume formulations at or above 640 g active ingredient/L) for listing in Annex III to the Rotterdam Convention

The Conference of the Parties,

Noting with appreciation the work of the Chemical Review Committee in its consideration of fenthion (ultra low volume formulations at or above 640 g active ingredient/L), in particular the technical quality and comprehensiveness of the draft decision guidance document for that chemical,

Having considered the recommendation of the Chemical Review Committee to make fenthion (ultra low volume formulations at or above 640 g active ingredient/L) subject to the prior informed consent procedure and accordingly to list it in Annex III to the Rotterdam Convention,

Taking into account that the Conference of the Parties is not yet able to reach consensus on whether to list fenthion (ultra low volume formulations at or above 640 g active ingredient/L),

Aware that the failure to reach consensus so far has caused concern in many Parties,

1. *Decides* that the agenda for the ninth meeting of the Conference of the Parties shall include further consideration of a draft decision to amend Annex III to the Rotterdam Convention to include the following chemical:

Chemical	Relevant CAS number(s)	Category
Fenthion (ultra low volume formulations at or above 640 g active ingredient/L)	55-38-9	Severely hazardous pesticide formulation

- 2. Decides that the requirements set out in Article 6 of the Convention, including the criteria set out in part 3 of Annex IV to the Convention as referenced in paragraph 5 of Article 6, the requirements set out in paragraph 1 of Article 7 and the requirements set out in the first sentence of paragraph 2 of Article 7 on the process for listing in Annex III to the Convention have been met;
- 3. Encourages Parties to make use of all available information on fenthion (ultra low volume formulations at or above 640 g active ingredient/L) to assist others, in particular developing-country Parties and Parties with economies in transition, to make informed decisions regarding the import and management of fenthion (ultra low volume formulations at or above 640 g active ingredient/L) and to inform other Parties of those decisions using the information exchange provisions laid down in Article 14.

RC-8/8: Enhancing the effectiveness of the Rotterdam Convention

The Conference of the Parties,

Recalling decision RC-7/5 and welcoming the intersessional work undertaken to enhance the effectiveness of the Rotterdam Convention, including the process of listing chemicals in Annex III,

Taking into account the circumstances and particular requirements of developing countries and countries with economies in transition, in particular the need to strengthen national capabilities and capacities for the management of chemicals, including transfer of technology, providing financial and technical assistance and promoting cooperation among the Parties,

Recalling the discussions during its eighth meeting and noting all the efforts and proposals to enhance the effectiveness of the Convention undertaken and put forward to date,

- 1. *Takes note* of the various options for enhancing the effectiveness of the Rotterdam Convention, including by improving the prior informed consent procedure, improving the listing process and considering cross-cutting issues such as the provision of technical and financial assistance;
- 2. Requests the Secretariat to develop an online survey to gather information on priority actions to enhance the effectiveness of the Convention and key information gaps related to such actions, to be sent to Parties by 30 June 2017 with an invitation to complete the survey by 31 October 2017:
- 3. Also requests the Secretariat, subject to the availability of resources, to compile the results of the survey mentioned in paragraph 2 above and to prepare by 15 January 2018 a report analysing the legal and operational implications of the priority actions received pursuant to paragraph 2 above;
- 4. *Further requests* the Secretariat to make the report referred to in paragraph 3 above available to Parties and others for comments by 31 March 2018 and to compile the comments received;
- 5. Decides to establish a working group with membership composed of representatives from Parties to identify, on the basis of the report developed pursuant to paragraph 3 above and the comments received pursuant to paragraph 4 above, a set of prioritized recommendations for enhancing the effectiveness of the Convention and to prepare a report identifying further steps for consideration by the Conference of the Parties at its ninth meeting;
- 6. *Invites* Parties to nominate representatives to participate in the working group and to inform the Secretariat of their nominations by 30 September 2017;
- 7. *Decides* that the abovementioned working group shall operate by electronic means, be open to participation by non-Party States and, subject to the availability of resources, hold face-to-face meetings;
- 8. *Notes* that paragraph 1 of rule 45 of the rules of procedure states that "Parties shall make every effort to reach agreement on all matters of substance by consensus. [If all efforts to reach consensus have been exhausted and no agreement has been reached, the decision shall, as a last resort, be taken by a two-thirds majority vote of the Parties present and voting, unless otherwise provided by the Convention, by the financial rules referred to in article 18, paragraph 4 of the Convention, or by the rules of procedure.]"

RC-8/9: Technical assistance

The Conference of the Parties,

Noting the recommendations contained in the report on the overall review of the synergies arrangements, 8

- 1. *Requests* the Secretariat to continue to collect, through the database established for that purpose, information on the technical assistance and capacity-building needs of developing-country Parties and Parties with economies in transition;
- 2. Welcomes the technical assistance plan for the implementation of the Basel, Rotterdam and Stockholm conventions for the period 2018–2021⁹ and requests the Secretariat, subject to the availability of resources, to implement it in cooperation with relevant actors, striving to attract the programming capacity and financial resources of relevant international organizations;
 - 3. *Encourages* Parties, regional centres and others:
- (a) To make financial or in-kind contributions to facilitate the availability of capacity-development materials and activities in appropriate official regional languages;
 - (b) To undertake capacity-building activities in official local languages, as appropriate;
- 4. *Requests* the Secretariat in collaboration with other international organizations to explore additional ways of facilitating North-South, South-South and triangular cooperation in its technical assistance plan referred to in paragraph 2 above;
- 5. Emphasizes the role of the regional centres, as set out in the provisions of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal and the Stockholm Convention on Persistent Organic Pollutants, as well as the regional, subregional and country offices of the Food and Agriculture Organization of the United Nations, the United Nations Environment Programme and other participating organizations of the Inter-Organization Programme for the Sound Management of Chemicals, in delivering, upon request, technical assistance at the regional level for the implementation of the Basel, Rotterdam and Stockholm conventions and in facilitating technology transfer to eligible Parties;
- 6. Welcomes the United Nations Environment Assembly resolution highlighting the role of the regional centres of the Basel and Stockholm conventions in assisting the regions in the implementation of the two conventions and in other relevant work relating to the multilateral environmental agreements in the chemicals and waste cluster in the countries they serve;¹⁰
- 7. *Requests* the Secretariat to prepare a report for consideration by the Conference of the Parties at its next meeting on the implementation of the technical assistance plan for the period 2018-2021, including, as appropriate, adjustments to the plan;
- 8. *Also requests* the Secretariat to report to the Conference of the Parties at its next meeting on the implementation of the present decision.

 $^{^{8}\} UNEP/CHW.13/INF/43-UNEP/FAO/RC/COP.8/INF/29-UNEP/POPS/COP.8/INF/46.$

⁹ UNEP/CHW.13/INF/36-UNEP/FAO/RC/COP.8/INF/26-UNEP/POPS/COP.8/INF/25.

¹⁰ See United Nations Environment Assembly resolution 2/7 on the sound management of chemicals and waste.

RC-8/10: International cooperation and coordination

The Conference of the Parties

- 1. Takes note of the report by the Secretariat on international cooperation and coordination;¹¹ the note by the Secretariat on integrating chemicals and waste management into the 2030 Agenda for Sustainable Development and the Sustainable Development Goals;¹² and the information provided by the secretariat of the Strategic Approach to International Chemicals Management on the Strategic Approach and the sound management of chemicals and wastes beyond 2020;¹³
- 2. Welcomes the 2030 Agenda for Sustainable Development, which includes the sound management of chemicals and wastes as an essential and integral cross-cutting element of sustainable development;
- 3. *Emphasizes* the important contributions of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants to supporting the Parties to those conventions in implementing the 2030 Agenda for Sustainable Development and the achievement of the relevant Sustainable Development Goals and associated targets;
- 4. Takes note of the methodology for the collection of data relevant to the indicators of the Sustainable Development Goals and requests the Secretariat to continue to cooperate with the United Nations Environment Programme and the secretariats of other chemicals and wastes-related multilateral environmental agreements to ensure a coordinated approach to the implementation of the methodology;
- 5. Requests the Secretariat to make available to the United Nations Environment Programme information relevant to the implementation of the 2030 Agenda for Sustainable Development submitted to it by Parties, as a contribution to the overall follow-up and review by the High-level Political Forum on Sustainable Development;
- 6. Also requests the Secretariat to continue to cooperate with the United Nations Environment Programme, the United Nations Statistics Division and other relevant organizations in the development of methodologies for indicators relevant to the Basel, Rotterdam and Stockholm conventions;¹⁴
- 7. Further requests the Secretariat, subject to the availability of resources, to assist Parties, upon request, in their efforts to integrate relevant elements of the conventions into their national plans and strategies for sustainable development, and, as appropriate, legislation;
- 8. Welcomes the adoption of relevant resolutions by the United Nations Environment Assembly at its second session, invites the Executive Director of the United Nations Environment Programme to take into account the work of the conventions in the implementation of those resolutions, and requests the Executive Secretary of the Basel, Rotterdam and Stockholm conventions to cooperate with the Executive Director of the United Nations Environment Programme in the implementation of those resolutions;
- 9. Welcomes the resolutions adopted at the fourth session of the International Conference on Chemicals Management, including in particular the endorsement of the overall orientation and guidance for achieving the 2020 goal, and the resolution to launch an intersessional process on the sound management of chemicals and waste beyond 2020, and requests the Secretariat to continue to cooperate with the secretariat of the Strategic Approach in this respect and to participate in and provide relevant input to the Strategic Approach intersessional process on the sound management of chemicals and waste beyond 2020;

¹¹ UNEP/CHW.13/INF/38-UNEP/FAO/RC/COP.8/INF/27-UNEP/POPS/COP.8/INF/44.

 $^{^{12}\,}UNEP/CHW.13/INF/39-UNEP/FAO/RC/COP.8/INF/28-UNEP/POPS/COP.8/INF/45.$

¹³ UNEP/CHW.13/INF/54-UNEP/FAO/RC/COP.8/INF/42-UNEP/POPS/COP.8/INF/58.

¹⁴ In accordance with the decisions of the United Nations Statistical Commission.

- 10. Requests the Secretariat to continue to enhance cooperation and coordination with the interim secretariat of the Minamata Convention on Mercury and the secretariat of the Strategic Approach in areas of relevance to the Basel, Rotterdam and Stockholm conventions, as well as with the international organizations and the activities listed in the report by the Secretariat on international cooperation and coordination;¹⁵
- 11. *Also* requests the Secretariat to report on the implementation of the present decision to the Conference of the Parties at its next meeting.

¹⁵ UNEP/CHW.13/INF/38-UNEP/FAO/RC/COP.8/INF/27-UNEP/POPS/COP.8/INF/44.

RC-8/11: Enhancing cooperation and coordination among the Basel, Rotterdam and Stockholm conventions

The Conference of the Parties,

Mindful of the legal autonomy of, respectively, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants,

Reaffirming that actions taken to enhance coordination and cooperation should be aimed at strengthening the implementation of the three conventions at the national, regional and global levels, promoting coherent policy guidance and enhancing efficiency in the provision of support to Parties with a view to reducing their administrative burden and maximizing the effective and efficient use of resources at all levels, taking into account national-level activities, circumstances and priorities, as appropriate,

Mindful that several of the follow-up actions to the recommendations presented in the reports on the reviews called for in decisions BC-12/20, RC-7/10 and SC-7/28¹⁶ are addressed in decisions adopted by the conferences of the Parties at their 2017 meetings,

- 1. Welcomes the report on the further review of the synergies arrangements; 17
- 2. Also welcomes the report on the review of the matrix-based management approach and organization¹⁸ undertaken by the Executive Director in consultation with the Director General of the Food and Agriculture Organization of the United Nations;
- 3. Further welcomes the report on the review of the proposals to enhance synergies arrangements set out in the note by the Secretariat on the organization and operation of the part of the Rotterdam Convention Secretariat hosted by the Food and Agriculture Organization of the United Nations;¹⁹
- 4. Requests the Secretariat to continue to seek opportunities for enhanced coordination and cooperation among the Basel, Rotterdam and Stockholm conventions in order to ensure policy coherence and enhance efficiency with a view to reducing the administrative burden and maximizing the effective and efficient use of resources at all levels;
- 5. *Invites* Parties to submit to the Secretariat, by 30 June 2018, suggestions for possible further action to enhance cooperation and coordination among the Basel, Rotterdam and Stockholm conventions and requests the Secretariat to inform the Conference of the Parties about the specific suggestions received in the documents to be considered under each relevant agenda item for its next meeting:
- 6. *Requests* the Secretariat to include information on progress achieved in enhancing cooperation and coordination in its reports on the implementation of relevant decisions.

¹⁶ UNEP/CHW.13/22/Add.1-UNEP/FAO/RC/COP.8/21/Add.1-UNEP/POPS/COP.8/25/Add.1.

 $^{^{17}\} UNEP/CHW.13/INF/43-UNEP/FAO/RC/COP.8/INF/29-UNEP/POPS/COP.8/INF/46,\ annex.$

¹⁸ UNEP/CHW.13/INF/44-UNEP/FAO/RC/COP.8/INF/30-UNEP/POPS/COP.8/INF/47, annex.

¹⁹ UNEP/CHW.13/INF/45-UNEP/FAO/RC/COP.8/INF/31-UNEP/POPS/COP.8/INF/48, annex.

RC-8/12: Clearing-house mechanism for information exchange

The Conference of the Parties

- 1. Welcomes the progress made in the implementation of the joint clearing-house mechanism;
- 2. Welcomes the work of the Secretariat in revising the draft joint clearing-house mechanism strategy²⁰ and in preparing a draft workplan for the implementation of the joint clearing-house mechanism for the biennium 2018–2019;²¹
 - 3. *Requests* the Secretariat, subject to the availability of resources:
- (a) To start the work to implement the strategy of the joint clearing-house mechanism²² in a gradual and cost-effective manner;
- (b) To implement the activities of the workplan for the biennium 2018–2019 in accordance with the programme of work and budget for the Convention for the biennium;
 - 4. *Also* requests the Secretariat:
- (a) To ensure that activities undertaken in the development of the clearing-house mechanism are cost-effective, proportionate and balanced and in line with the capacity and resources of the Secretariat;
 - (b) To prioritize recurring activities, in particular in respect of maintenance;
- (c) To implement activities in house whenever possible and to resort to the use of consultants only in justifiable cases;
- (d) To link with other relevant existing mechanisms and sources of information without having to redo the content already contained in them;
- (e) Where possible, to participate in meetings through electronic means and to use translations already available in the six official United Nations languages;
- 5. Further requests the Secretariat to continue to enhance cooperation and coordination activities with existing partners in the area of information exchange, to explore possible cooperative activities with new partners as appropriate and to ensure complementarity and avoid duplication with existing and future activities, tools and mechanisms;
- 6. *Invites* Parties and others to participate, as appropriate, in the development of the strategy and in relevant activities of the workplan in accordance with the present decision;
- 7. Requests the Secretariat to keep the strategy under regular review in order to take into account lessons learned and relevant developments with regard to matters such as the multi-sectoral and multi-stakeholder discussions on the sound management of chemicals and waste beyond 2020.

 $^{^{20}\;}UNEP/CHW.13/INF/47-UNEP/FAO/RC/COP.8/INF/33-UNEP/POPS/COP.8/INF/50.$

²¹ UNEP/CHW.13/INF/48-UNEP/FAO/RC/COP.8/INF/39-UNEP/POPS/COP.8/INF/43.

²² UNEP/CHW.13/INF/47-UNEP/FAO/RC/COP.8/INF/33-UNEP/POPS/COP.8/INF/50.

RC-8/13: Mainstreaming gender

The Conference of the Parties,

Recalling Sustainable Development Goal 5 on gender equality, adopted by the General Assembly on 25 September 2015 in its resolution 70/1, entitled "Transforming our world: the 2030 Agenda for Sustainable Development",

Recalling also United Nations Environment Assembly resolution 2/5 of 27 May 2016, entitled "Delivering on the 2030 Agenda for Sustainable Development", which, among other things, stresses the importance of respecting, protecting and promoting gender equality in delivering the environmental dimension of the 2030 Agenda for Sustainable Development,

- 1. Welcomes the Gender Action Plan of the Secretariat of the Basel, Rotterdam and Stockholm conventions and the report on the implementation of the Gender Action Plan²³ and requests the Secretariat to continue its efforts in respect of gender mainstreaming in its activities, projects and programmes;
- 2. Recognizes that, notwithstanding the efforts of Parties and the Secretariat to promote gender equality, efforts are still needed to ensure that women and men from all Parties are equally involved in the implementation of the three conventions and are represented in their bodies and processes and thus inform and participate in decision-making on gender-responsive hazardous chemicals and wastes policies;
 - 3. *Requests* the Secretariat:
- (a) In accordance with decisions BC-12/25, RC-7/15 and SC-7/33, to continue to report on the implementation of the Gender Action Plan to the conferences of the Parties at their meetings in 2019 and at subsequent meetings;
- (b) To update, for consideration by the conferences of the Parties at their next meetings, the Gender Action Plan for mainstreaming gender considerations in the programme of work with indicators for monitoring progress so as to enable the conferences of the Parties to follow up on the plan's implementation.

52

²³ UNEP/CHW.13/INF/46-UNEP/FAO/RC/COP.8/INF/32-UNEP/POPS/COP.8/INF/49, annex.

RC-8/14: Synergies in preventing and combating illegal traffic and trade in hazardous chemicals and wastes

The Conference of the Parties,

Noting the priority areas for action recognized in decision SC-8/18 on effectiveness evaluation as they relate to strengthening legislation and regulations for the implementation and enforcement of the Stockholm Convention on Persistent Organic Pollutants,

Mindful of decision BC-13/10 on national legislation, notifications, enforcement of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal and efforts to combat illegal traffic under the Convention,

- 1. Welcomes the analysis of possible synergies in preventing and combating illegal traffic and trade in hazardous chemicals and wastes, building on lessons learned under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal;²⁴
- 2. *Emphasizes* the importance of the effective implementation of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, in particular Articles 11 and 12, for preventing and combating illegal trade in hazardous chemicals;
- 3. *Underlines* the importance of adequate legal and institutional frameworks at the national level in preventing and combating illegal traffic and trade in hazardous chemicals and wastes under the Basel Convention, the Rotterdam Convention and the Stockholm Convention:
- 4. *Emphasizes* the need to ensure complementarity and consistency and to avoid duplication of the work on illegal traffic and trade under the conventions with similar work by the United Nations Environment Programme and other relevant organizations;
- 5. *Urges* Parties to strengthen action under the conventions, including cooperation with other Parties, to combat illegal traffic and trade in hazardous chemicals and wastes;
- 6. *Emphasizes* the importance of the information provided by Parties to the Secretariat under each convention on the measures that they have adopted in order to implement the convention and requests the Secretariat to make the information relevant to illegal traffic and trade, if not identified as confidential by Parties involved, available on the website of the convention, without duplicating related requests under the other conventions;
 - 7. Encourages Parties to two or more of the Basel, Rotterdam and Stockholm conventions:
- (a) To establish, where they do not yet exist, coordinating mechanisms at the national level with a view to facilitating the exchange of information among relevant authorities responsible for the implementation and enforcement of the provisions of the conventions aimed at controlling the export and import of the chemicals and wastes covered under the conventions, other relevant institutions and the private sector;
- (b) To review, through those coordinating mechanisms, the lessons learned under each convention that could benefit the implementation and enforcement of the others and, as appropriate, to adjust their legal and institutional frameworks accordingly;
- 8. *Invites* Parties to share with other Parties, through the Secretariat, while avoiding duplication:
 - (a) Their experiences pursuant to paragraph 7 above;
 - (b) Information on cases of illegal trade in hazardous chemicals and wastes;
- 9. *Invites* the member organizations of the Inter-Organization Programme for the Sound Management of Chemicals, the Basel Convention and Stockholm Convention regional centres, the International Criminal Police Organization, the World Customs Organization, the secretariat of the Montreal Protocol on Substances that Deplete the Ozone Layer and relevant global and regional enforcement networks to provide the Conference of the Parties, through the Secretariat, with information on their activities aimed at preventing and combating illegal traffic and trade in hazardous chemicals and wastes as well as lessons learned from those activities for consideration by the Conference of the Parties at its next meeting;

²⁴ UNEP/CHW.13/INF/49-UNEP/FAO/RC/COP.8/INF/34-UNEP/POPS/COP.8/INF/51.

- 10. *Requests* the Secretariat:
- (a) To seek, subject to the availability of resources, comments from Parties and others on further areas, including areas common to two or three of the conventions, in which legal clarity could be improved as a means of preventing and combating illegal traffic and trade in hazardous chemicals and wastes and, based on those comments, to prepare a report, including recommendations, for consideration by the Conference of the Parties at its next meeting;
- (b) To support Parties, upon request and within available resources, on matters pertaining to the implementation and enforcement of the provisions of the Basel, Rotterdam and Stockholm conventions aimed at controlling the export and import of chemicals and wastes covered under the three conventions, including on the development and updating of national legislation or other measures;
- (c) To develop examples of the integration of the provisions of the Basel, Rotterdam and Stockholm conventions into national legal frameworks and to organize training activities, subject to the availability of resources and in collaboration with partners, to assist Parties, particularly developing-country Parties and Parties with economies in transition, in the development of national legislation and other measures to implement and enforce the provisions of the conventions aimed at controlling the export and import of chemicals and wastes covered under the conventions;
- (d) To report on the implementation of the present decision to the Conference of the Parties at its next meeting.

RC-8/15: From science to action

The Conference of the Parties

- 1. Emphasizes that, through its subsidiary bodies, expert groups and other related mechanisms, including with other partners, the necessary processes are in place to ensure science-based work and decision-making under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants and welcomes their work in that regard;
- 2. *Emphasizes* the importance of, and the need to enhance, the interaction between scientists, policymakers and other actors in the policy process to promote the exchange, development and joint construction of knowledge with the aim of achieving more informed decision-making for reaching the objectives of the conventions;
- 3. *Encourages* Parties and other stakeholders to initiate action to promote science-based decision-making and action in the implementation of the conventions at the national level;
- 4. *Takes note* of the Secretariat's draft road map for further engaging Parties and other stakeholders in informed dialogue for enhanced science-based action in the implementation of the conventions:²⁵
- 5. Requests the Secretariat, subject to the availability of resources, and in collaboration with regional centres, as appropriate, to undertake capacity-building and training activities to support Parties in science-based decision-making and action in the implementation of the Basel, Rotterdam and Stockholm conventions;
- 6. Welcomes the progress made to date and requests the Secretariat, by 30 September 2017, to further revise the draft road map with a focus on moving from multilateral dialogue to action at the national and regional levels while avoiding duplication and inconsistencies with existing mechanisms and taking into account the views expressed by Parties during the 2017 meetings of the conferences of the Parties to the three conventions;
- 7. *Invites* Parties and others to submit comments on the further revised road map by 28 February 2018;
- 8. *Invites* Parties to the Basel, Rotterdam and Stockholm conventions to nominate through their bureau representatives up to four experts per United Nations region, by 30 June 2017, to assist the Secretariat in further revising the draft road map, working through electronic means, and requests the Secretariat to prepare a final draft, with a focus on enhancing science-based action at the national and regional levels, in particular with regard to section 4.2 and appendix 1 of the current draft road map,²⁶ for consideration by the conferences of the Parties to the three conventions at their next meetings;
- 9. Requests the Secretariat to cooperate and coordinate with the United Nations Environment Programme and other relevant organizations, scientific bodies and stakeholders to strengthen the science-policy interface and to report to the conferences of the Parties at their meetings in 2019 on the implementation of the present decision.

²⁵ UNEP/CHW.13/INF/50-UNEP/FAO/RC/COP.8/INF/35-UNEP/POPS/COP.8/INF/52, annex I.

²⁶ Ibid.

RC-8/16: Draft memorandum of understanding between the Food and Agriculture Organization of the United Nations, the United Nations Environment Programme and the Conference of the Parties to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

The Conference of the Parties,

Noting the legal autonomy of the Conference of the Parties and noting that the United Nations Environment Assembly of the United Nations Environment Programme (UNEP), the Conference of the Food and Agriculture Organization of the United Nations (FAO) and the conferences of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants have equal decision-making authority within their respective mandates,

- 1. Recalls its request in decision RC-7/14 for the preparation of draft memorandums of understanding concerning the provision of secretariat functions for the Convention and notes with concern that no such draft has been submitted for consideration and possible adoption by the Conference of the Parties in 2017;
- 2. *Reiterates* its request in decision RC-7/14 for the preparation by the Secretariat of such draft memorandums of understanding for consideration and possible adoption at its next meeting;
- 3. *Takes note* of United Nations Environment Assembly resolution 2/18 on the relationship between UNEP and the multilateral environmental agreements for which it provides the secretariats and of the progress report prepared by the Executive Director of UNEP;²⁷
- 4. Requests the Executive Secretary of the Basel, Rotterdam and Stockholm conventions to engage actively in the work of the Executive Director, in consultation with the secretariats of other UNEP-administered multilateral environmental agreements, to develop a flexible draft template of options for the provision of secretariat services in an appropriate form, taking into account the UNEP delegation of authority policy and framework for the management and administration of multilateral environmental agreement secretariats and the draft memorandums of understanding between the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions and the Executive Director;²⁸
- 5. Decides that if the work of UNEP under paragraph 4 above is not finalized in time for the next meeting of the Conference of the Parties it should not delay consideration of the draft memorandum of understanding;
- 6. Acknowledges the continued application of the memorandum of understanding between the Director-General of FAO and the Executive Director of UNEP concerning arrangements for performing jointly the secretariat functions for the Rotterdam Convention, which was approved by the Conference of the Parties in its decision RC-2/5 and entered into force on 28 November 2005 and is distinct from the draft memorandum of understanding requested in decision RC-7/14 to be submitted for consideration by the Conference of the Parties at its next meeting;
- 7. Decides to include the draft memorandum of understanding as an item on the provisional agenda of the next meeting of the Conference of the Parties, in accordance with rule 10 (b) of the rules of procedure.

²⁷ UNEP/CHW.13/INF/56-UNEP/FAO/RC/COP.8/INF/46-UNEP/POPS/COP.8/INF/59.

²⁸ UNEP/CHW.12/25, annex; UNEP/FAO/RC/COP.7/19, annex; UNEP/POPS/COP.7/9, annex.

RC-8/17: Programme of work and budget for the Rotterdam Convention for the biennium 2018–2019

The Conference of the Parties,

Taking note of the financial reports on the Rotterdam Convention trust funds for 2016 and estimated expenditures for 2017 from the Trust Fund for the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam Convention Trust Fund),²⁹

I

Trust Fund for the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

- 1. *Approves* the programme budget for the Rotterdam Convention for the biennium 2018-2019 of 8,239,100 United States dollars for the purposes set out in table 1 of the present decision;
- 2. *Authorizes* the executive secretaries of the Rotterdam Convention to make commitments in an amount up to the approved operational budget, drawing upon available cash resources;
- 3. *Decides* to maintain the working capital reserve at the level of 15 per cent of the annual average of the biennial operational budgets for the biennium 2018–2019;
- 4. *Invites* the governing bodies of the United Nations Environment Programme and the Food and Agriculture Organization of the United Nations to continue and, where possible, increase their financial and other support for the operation of the Convention and its Secretariat in the biennium 2018–2019;
- 5. *Welcomes* the continued contribution by Italy and Switzerland, the host countries of the Secretariat, of 1,200,000 euros each for the biennium to the Secretariat to offset planned expenditures;
- 6. *Notes* that 50 percent of Switzerland's host country contribution of 1,200,000 euros for the biennium, equivalent to 651,466 United States dollars, ³⁰ will be apportioned to the Rotterdam Convention General Trust Fund and the remainder to the Special Trust Fund for the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade;
- 7. Adopts the indicative scale of assessments for the apportionment of expenses for the biennium 2018–2019 set out in table 2 of the present decision and authorizes the executive secretaries, consistent with the Financial Regulations and Rules of the United Nations, to adjust the scale to include all Parties for which the Convention enters into force before 1 January 2018 for 2018 and before 1 January 2019 for 2019;
- 8. Recalls that contributions to the Rotterdam Convention Trust Fund are expected by or on 1 January of the year for which those contributions have been budgeted, requests Parties to pay their contributions promptly, encourages Parties in a position to do so to pay their contributions by 16 October 2017 for the calendar year 2018 and by 16 October 2018 for the calendar year 2019 and requests the Secretariat to notify Parties of the amounts of their contributions as early as possible in the year preceding the year in which they are due;
- 9. *Notes with concern* that a number of Parties have not paid their contributions to the Rotterdam Convention Trust Fund for 2016 and prior years, contrary to the provisions of paragraph 3 (a) of rule 5 of the financial rules;

²⁹ UNEP/FAO/RC/COP.8/INF/38/Rev.2.

³⁰ The 50 per cent host country contribution of Switzerland to the General Trust Fund of 600,000 euros for 2018–2019 is equivalent to 651,466 United States dollars using the United Nations operational exchange rate of 1 May 2017, according to which 1 United States dollar equals 0.921 euros.

- 10. *Urges* Parties to pay their contributions promptly by or on 1 January of the year to which the contributions apply and requests the Secretariat to present at regional meetings information on the state of play³¹ regarding arrears and their consequences;
- 11. Recalls paragraph 14 of decision RC-7/15 and decides to continue the practice, with regard to contributions due from 1 January 2005 onwards, that no representative of any Party whose contributions are in arrears for two or more years shall be eligible to become a member of the Bureau of the Conference of the Parties or a member of any subsidiary body of the Conference of the Parties, provided, however, that this shall not apply to Parties that are least developed countries or small island developing States or to any Party that has agreed on and is respecting a schedule of payments in accordance with the financial rules:
- 12. Also recalls paragraph 15 of decision RC-7/15 and decides to continue the practice that no representative of any Party whose contributions are in arrears for four or more years and that has not agreed on or is not respecting a schedule of payments implemented in accordance with paragraph 3 (d) of rule 5 of the financial rules shall be eligible to receive financial support for attendance at intersessional workshops or other informal meetings, as arrears that have been outstanding for more than four years must be treated as 100 per cent doubtful debts under the International Public Sector Accounting Standards;
- 13. *Takes note* of the efforts of the executive secretaries and the President of the Conference of the Parties, who through a jointly signed letter invited the ministers of foreign affairs of Parties with contributions in arrears to take timely action to rectify those arrears, requests that this practice continue and thanks those Parties that have responded in a positive manner by paying their outstanding contributions;
- 14. *Also takes note* of the indicative staffing table for the Secretariat for the biennium 2018–2019 used for costing purposes to set the overall budget, which is set out in table 3 of the present decision;
- 15. Authorizes the Executive Secretary, should the annual increase applied to real staff costs and used to determine the staffing envelope not be adequate, on an exceptional basis and as a last resort to draw additional funds, not exceeding 100,000 United States dollars, from the Basel, Rotterdam and Stockholm conventions' three general trust funds' net balance to cover any shortfall in the approved staffing envelope for the biennium 2018–2019, provided that the balances are not reduced below the respective working capital reserves, except in the case of the Stockholm Convention, the working capital reserve for which may temporarily be used for this purpose;
- 16. Authorizes the executive secretaries to continue to determine the staffing levels, numbers and structure of the Secretariat in a flexible manner as recommended by the Office of Internal Oversight Services in its audit report, ³² provided that the executive secretaries remain within the overall cost of the staff numbers set out in table 3 of the present decision for the biennium 2018–2019;
- 17. *Invites* the Executive Secretary to continue cooperating on programmatic matters with the interim secretariat to the Minamata Convention and to provide any secretariat support that may be requested and is fully funded by the Conference of the Parties to the Minamata Convention;
- 18. *Requests* the Secretariat to ensure the full utilization of the programme support costs available to it in 2018–2019 and, where possible, to offset those costs against the administrative components of the approved budget;

II

Special Trust Fund for the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

19. *Takes note* of the funding estimates included in table 1 of the present decision for activities under the Convention to be financed from the Special Trust Fund for the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides

³¹ For the present decision, "state of play" consists of the current status of arrears, difficulties with paying assessed contributions due to restrictions that go beyond national jurisdiction and the status of any payment plans agreed on with the Secretariat.

 $^{^{32}}$ Office of Internal Oversight Services, Internal Audit Division, Report 2014/024, available at https://oios.un.org/page/download/id/120.

in International Trade (voluntary Special Trust Fund) in the amount of 3,957,125 United States dollars for the biennium 2018–2019;

- 20. *Notes* that the voluntary Special Trust Fund requirement presented in the budget represents the Secretariats' best efforts to be realistic and reflects priorities agreed upon by all Parties and urges Parties and invites non-Parties and others to make voluntary contributions to the voluntary Special Trust Fund so as to encourage contributions from donors;
- 21. *Invites* Switzerland to include in its contribution to the voluntary Special Trust Fund support for, among other things, the participation of developing-country Parties, in particular least developed countries and small island developing States, and Parties with economies in transition in meetings of the Convention and joint activities between the Basel, Rotterdam and Stockholm conventions:
- 22. *Urges* Parties, and invites others in a position to do so, to contribute urgently to the voluntary Special Trust Fund with a view to ensuring the full and effective participation of developing-country Parties, in particular least developed countries and small island developing States, and Parties with economies in transition in the meetings of the Conference of the Parties and its subsidiary bodies;

Ш

Preparations for the next biennium

- 23. Decides that the two trust funds for the Convention shall be continued until 31 December 2019 and requests the Executive Director of the United Nations Environment Programme to extend them for the biennium 2018–2019, subject to the approval of the United Nations Environment Assembly of the United Nations Environment Programme;
- 24. *Takes note* of the efforts since 2012 to enhance efficiency in the use of financial and human resources in the joint secretariat and encourages the executive secretaries to continue such efforts in the future work of the Secretariat;
- 25. Requests the executive secretaries to prepare a budget for the biennium 2020–2021, for consideration by the Conference of the Parties at its ninth meeting, explaining the key principles, assumptions and programmatic strategy on which the budget is based and presenting expenditures for the 2020–2021 period in a programmatic format;
- 26. Notes the need to facilitate priority-setting by providing Parties with timely information on the financial consequences of various options and, to that end, requests the executive secretaries to include in the proposed operational budget for the biennium 2020–2021 two alternative funding scenarios that take account of any efficiencies identified as a result of paragraph 24 above and are based on:
- (a) Their assessment of the required changes in the operational budget, which should not exceed a 5 per cent increase over the 2018–2019 level in nominal terms, to finance all proposals before the Conference of the Parties that have budgetary implications;
 - (b) Maintaining the operational budget at the 2018–2019 level in nominal terms;
- 27. Requests the Secretariat, in collaboration with the Food and Agriculture Organization of the United Nations, to report to the Conference of the Parties which activities were financed from the Food and Agriculture Organization of the United Nations contribution in the implementation of the 2018–2019 programme of work and to identify which activities are going to be implemented, funded or co-funded from that contribution in the 2020–2021 programme of work and budget;
- 28. *Requests* the executive secretaries at the ninth ordinary meeting of the Conference of the Parties to provide, where relevant, cost estimates for actions that have budgetary implications that are not foreseen in the draft programme of work but are included in proposed draft decisions before the adoption of those decisions by the Conference of the Parties;
- 29. *Stresses* the need to ensure that the proposal for the 2020–2021 voluntary Special Trust Fund requirement presented in the budget is realistic and represents the agreed priorities of all Parties so as to encourage voluntary contributions from donors;
- 30. Requests the Secretariat to identify elements of programmatic cooperation with other organizations of the chemicals and wastes cluster for the programme of work for 2018–2019 in line with decision RC-8/10 on international cooperation and coordination.

Table 1

Programme budget, reserves and financing for the 2018–2019 biennium (United States dollars)

Programme budget

		Ge	neral trust fu	ınd	Voluntary trust fund			
		Basel	Rotterdam	Stockholm	Basel	Rotterdam	Stockholm	
1	Fourteenth meeting of the Conference of the Parties to the Basel Convention	557 575			1 014 871			
2	Ninth meeting of the Conference of the Parties to the Rotterdam Convention		557 575			1 014 871		
3	Ninth meeting of the Conference of the Parties to the Stockholm Convention			557 575			1 014 871	
4	Eleventh meeting of the Basel Convention Open- ended Working Group	347 982			669 512			
5	Fourteenth and fifteenth meetings of the Rotterdam Convention Chemical Review Committee and orientation workshop for members of the Chemical Review Committee		517 208			89 535		
6	Fourteenth and fifteenth meetings of the Stockholm Convention Persistent Organic Pollutants Review Committee			952 962			111 552	
7	Meeting of the Bureau of the Conference of the Parties to the Basel Convention and joint meeting of the bureaux to the Basel, Rotterdam and Stockholm conventions	50 900						
8	Meeting of the Bureau of the Conference of the Parties to the Rotterdam Convention and joint meeting of the bureaux to the Basel, Rotterdam and Stockholm conventions		30 200					
9	Meeting of the Bureau of the Conference of the Parties to the Stockholm Convention and joint meeting of the bureaux to the Basel, Rotterdam and Stockholm conventions			44 000				
10	Thirteenth meeting of the Basel Convention Implementation and Compliance Committee	35 000			30 280			
12	Support for the work of and coordination between the scientific bodies of the conventions				40 000	40 000	40 000	
13	Technical assistance and capacity development programme of the Basel, Rotterdam and Stockholm conventions ¹				516 000	636 500	637 500	
14	Training and capacity development activities under the Basel Convention				1 000 000			
15	Training and capacity development activities under the Rotterdam Convention					1 000 000		
16	Training and capacity development activities under the Stockholm Convention						1 000 000	
	Partnerships for technical assistance				566 600	278 800	39 600	
19	Coordination of and support for the Basel and Stockholm conventions regional centres and cooperation and coordination between regional centres	44 150		44 150	300 000		300 000	
20	Scientific support for Parties to the Basel Convention	275 000		20 000	235 000			
21	Scientific support for Parties to the Rotterdam Convention		60 000			130 000		
22	Scientific support for Parties to the Stockholm Convention			135 000			372 000	
23	Effectiveness evaluation and the global monitoring plan			60 000			398 000	
24	National reporting	42 500		70 000	107 500		20 000	
25	Clearing-house mechanism for information exchange, including the prior informed consent database and the Rotterdam Convention website in English, French and Spanish	42 705	92 792	42 703	83 334	83 330	83 336	

		Ge	neral trust fu	ınd	Voli	ıntary trust f	fund
		Basel	Rotterdam		Basel	•	Stockholm
26	Publications	33 400	33 200	33 400			
27	Joint communication, outreach and public awareness	10 000	10 000	10 000			
28	Executive direction and management	122 300	225 427	204 868			
29	International cooperation and coordination, including partnerships						
30	Financial resources and mechanisms	12 000	12 000	12 000			
32	Legal and policy (specific to the Basel Convention)				402 500		
33	Joint legal and policy activities under the Basel,				20 000		
	Rotterdam and Stockholm conventions; national legislation, illegal traffic and trade, and						
	enforcement under the Basel, Rotterdam and						
	Stockholm conventions						
34	Coordination and provision of support to Parties in follow-up to the country-led initiative on environmentally sound management and further legal clarity				677 500		
35	Office maintenance and services	364 080	212 040	364 080			
36	Joint information technology services	100 000	80 000	100 000			
37	Staff costs	6 488 841	5 460 797	7 599 014	228 845	228 845	228 845
	Total (excluding programme support costs)	8 526 433	7 291 239	10 249 752	5 891 942	3 501 881	4 245 704
	Programme support costs	1 108 436	947 861	1 332 468	765 952	455 244	551 941
	Total (including programme support costs)	9 634 869	8 239 100	11 582 220	6 657 894	3 957 125	4 797 645
	Grand total		29 456 189			15 412 664	

¹ The impact assessment of the implementation of the technical assistance plan shall be funded as a priority using unearmarked contributions to the voluntary trust funds of the conventions.

Reserves

	Basel	Rotterdam	Stockholm
2018–2019 approved budget from the general trust fund	9 634 869	8 239 100	11 582 220
Working capital reserve			
Current level	705 363	611 008	748 847
Required level	722 615	617 933	868 666
Approved changes to the working capital reserve	17 252	6 924	119 820
Rotterdam Convention special contingency reserve			
Current level	0	292 540	0
Approved changes to the Rotterdam Convention special contingency reserve	0	0	0
Total required for the approved budget and changes to reserves	9 652 121	8 246 025	11 702 039

Financing

	Basel	Rotterdam	Stockholm
Funded from the trust fund balance	0	0	0
Funded from the Rotterdam Convention special contingency reserve	0	0	0
Funded from the host country contributions of Switzerland ^{1,2}	0	651 466	1 934 389
Funded from the host country contributions of Italy ¹	0	1 302 932	0
Funded from assessed contributions of Parties	9 652 121	6 291 627	9 767 650

¹The host country contribution for the Rotterdam Convention was pledged in Euros and converted to United States dollars using the United Nations operational rate of exchange of 1 United States dollar = 0.921 euros on 1 May 2017.

² The host country contribution for the Stockholm Convention was pledged in Swiss francs and converted into United States dollars using the United Nations operational rate of exchange of 1 United States dollar = 0.996 Swiss francs on 1 May 2017.

 ${\bf Table~2} \\ {\bf Assessed~contributions~apportioned~to~Parties~to~the~Basel,~Rotterdam~and~Stockholm~conventions~for~the~2018–2019~biennium~(United~States~dollars)}$

	United Nations Secretariat scale		В	asel Conve	ntion (BCL)	R	otterdam ((RO		Stoc	kholm Con	vention (SCL)
	Party	United Nations scale		BC adjusted scale, per cent	Average <u>annual</u> contribution for biennium		RC adjusted scale, per cent	Average <u>annual</u> contribution for biennium		SC adjusted scale, per cent	Average <u>annual</u> contribution for biennium
	Remarks	(1)		(2)	(4)		(3)	(4)		(3)	(4)
	-	Per cent	No.	Per cent	United States dollars	No.	Per cent	United States dollars	No.	Per cent	United States dollars
1	Afghanistan	0.006	1	0.008	362	1	0.010	315	1	0.010	488
2	Albania	0.008	2	0.010	483	2	0.010	315	2	0.010	488
3	Algeria	0.161	3	0.201	9 717	-	n.a.	n.a.	3	0.213	10 400
4	Andorra	0.006	4	0.008	362	-	n.a.	n.a.	4	n.a.	n.a.
5	Angola	0.010	5	0.010	483	-	n.a.	n.a.	-	0.010	488
6	Antigua and Barbuda	0.002	6	0.003	121	3	0.010	315	5	0.010	488
7	Argentina	0.892	7	1.115	53 834	4	1.131	35 595	6	1.180	57 623
8	Armenia	0.006	8	0.008	362	5	0.010	315	7	0.010	488
9	Australia	2.337	9	2.923	141 043	6	2.964	93 256	8	3.091	150 969
10	Austria	0.720	10	0.900	43 454	7	0.913	28 731	9	0.952	46 511
11	Azerbaijan	0.060	11	0.075	3 621	-	n.a.	n.a.	10	0.079	3 876
12	Bahamas	0.014	12	0.018	845	-	n.a.	n.a.	11	0.019	904
13	Bahrain	0.044	13	0.055	2 655	8	0.056	1 756	12	0.058	2 842
14	Bangladesh	0.010	14	0.010	483	-	n.a.	n.a.	13	0.010	488
15	Barbados	0.007	15	0.009	422	-	n.a.	n.a.	14	0.010	488
16	Belarus	0.056	16	0.070	3 380	-	n.a.	n.a.	15	0.074	3 618
17	Belgium	0.885	17	1.107	53 412	9	1.123	35 315	16	1.171	57 170
18	Belize	0.001	18	0.001	60	10	0.010	315	17	0.010	488
19	Benin	0.003	19	0.004	181	11	0.010	315	18	0.010	488
20	Bhutan	0.001	20	0.001	60	-	n.a.	n.a.	-	n.a.	n.a.
21	Bolivia (Plurinational State of)	0.012	21	0.015	724	12	0.000	0	19	0.016	775
22	Bosnia and Herzegovina	0.013	22	0.016	785	13	0.016	519	20	0.017	840
23	Botswana	0.014	23	0.018	845	14	0.018	559	21	0.019	904
24	Brazil	3.823	24	4.781	230 726	15	4.849	152 554	22	5.057	246 963
25	Brunei Darussalam	0.029	25	0.036	1 750	-	n.a.	n.a.	_	n.a.	n.a.
26	Bulgaria	0.045	26	0.056	2 716	16	0.057	1 796	23	0.060	2 907
27	Burkina Faso	0.004	27	0.005	241	17	0.010	315	24	0.010	488
28	Burundi	0.001	28	0.001	60	18	0.010	315	25	0.010	488
29	Cabo Verde	0.001	29	0.001	60	19	0.010	315	26	0.010	488
30	Cambodia	0.004	30	0.005	241	20	0.010	315	27	0.010	488
31	Cameroon	0.010	31	0.013	604	21	0.013	399	28	0.013	646
32	Canada	2.921	32	3.653	176 288	22	3.705	116 561	29	3.864	188 695
33	Central African Republic	0.001	33	0.001	60	-	n.a.	n.a.	30	0.010	488
34	Chad	0.005	34	0.006	302	23	0.010	315	31	0.010	488
35	Chile	0.399	35	0.499	24 080	24	0.506	15 922	32	0.528	25 775
36	China	7.921	36	9.906	478 049	25	10.048	316 082	33	10.477	511 691
37	Colombia	0.322	37	0.403	19 433	26	0.408	12 849	34	0.426	20 801

	United Nations Secretariat scale			asel Conve	ntion (BCL)	R	otterdam ((RO		Stockholm Convention (SCL)			
	Party	United Nations scale		BC adjusted scale, per cent	Average <u>annual</u> contribution for biennium		RC adjusted scale, per cent	Average <u>annual</u> contribution for biennium		SC adjusted scale, per cent	Average <u>annual</u> contribution for biennium	
	Remarks	(1)	_	(2)	(4)		(3)	(4)	_	(3)	(4)	
	-	Per cent	No.	Per cent	United States dollars	No.	Per cent	United States dollars	No.	Per cent	United States dollars	
38	Comoros	0.001	38	0.001	aonars 60	_	n.a.	n.a.	35	0.010	488	
39	Congo	0.006	39	0.008	362	27	0.010	315	36	0.010	488	
40	Cook Islands	0.001	40	0.001	60	28	0.010	315	37	0.010	488	
41	Costa Rica	0.047	41	0.059	2 837	29	0.060	1 876	38	0.062	3 036	
42	Côte d'Ivoire	0.009	42	0.011	543	30	0.011	359	39	0.010	488	
43	Croatia	0.099	43	0.124	5 975	31	0.126	3 951	40	0.131	6 395	
44	Cuba	0.065	44	0.081	3 923	32	0.082	2 594	41	0.086	4 199	
45	Cyprus	0.043	45	0.054	2 595	33	0.055	1 716	42	0.057	2 778	
46	Czechia	0.344	46	0.430	20 761	34	0.436	13 727	43	0.455	22 222	
47	Democratic People's Republic of Korea	0.005	47	0.006	302	35	0.010	315	44	0.010	488	
48	Democratic Republic of the Congo	0.008	48	0.010	483	36	0.010	315	45	0.010	488	
49	Denmark	0.584	49	0.730	35 246	37	0.741	23 304	46	0.772	37 726	
50	Djibouti	0.001	50	0.001	60	38	0.010	315	47	0.010	488	
51	Dominica	0.001	51	0.001	60	39	0.010	315	48	0.010	488	
52	Dominican Republic	0.046	52	0.058	2 776	40	0.058	1 836	49	0.061	2 972	
53	Ecuador	0.067	53	0.084	4 044	41	0.085	2 674	50	0.089	4 328	
54	Egypt	0.152	54	0.190	9 174	-	n.a.	n.a.	51	0.201	9 819	
55	El Salvador	0.014	55	0.018	845	42	0.018	559	52	0.019	904	
56	Equatorial Guinea	0.010	56	0.010	483	43	0.010	315	-	n.a.	n.a.	
57	Eritrea	0.001	57	0.001	60	44	0.010	315	53	0.010	488	
58	Estonia	0.038	58	0.048	2 293	45	0.048	1 516	54	0.050	2 455	
59	Ethiopia	0.010	59	0.010	483	46	0.010	315	55	0.010	488	
60	European Union	2.500	60	2.500	120 652	47	2.500	78 645	56	2.500	122 096	
61	Fiji	0.003		n.a.	n.a.	-	n.a.	n.a.	57	0.010	488	
62	Finland	0.456	61	0.570	27 521	48	0.578	18 196	58	0.603	29 457	
63	France	4.859	62	6.076	293 251	49	6.164	193 895	59	6.427	313 888	
64	Gabon	0.017	63	0.021	1 026	50	0.022	678	60	0.022	1 098	
65	Gambia	0.001	64	0.001	60	51	0.010	315	61	0.010	488	
66	Georgia	0.008	65	0.010	483	52	0.010	315	62	0.010	488	
67	Germany	6.389	66	7.990	385 589	53	8.104	254 949	63	8.451	412 725	
68	Ghana	0.016	67	0.020	966	54	0.020	638	64	0.021	1 034	
69	Greece	0.471	68	0.589	28 426	55	0.597	18 795	65	0.623	30 426	
70	Guatemala	0.028	69	0.035	1 690	56	0.036	1 117	66	0.037	1 809	
71	Guinea	0.002	70	0.003	121	57	0.010	315	67	0.010	488	
72	Guinea-Bissau	0.001	71	0.001	60	58	0.010	315	68	0.010	488	
73	Guyana	0.002	72	0.003	121	59	0.010	315	69	0.010	488	
74	Honduras	0.008	73	0.010	483	60	0.010	315	70	0.010	488	
75	Hungary	0.161	74	0.201	9 717	61	0.204	6 425	71	0.213	10 400	
76	Iceland	0.023	75	0.029	1 388	-	n.a.	n.a.	72	0.030	1 486	
77	India	0.737	76	0.922	44 479	62	0.935	29 410	73	0.975	47 610	
78	Indonesia	0.504	77	0.630	30 417	63	0.639	20 112	74	0.667	32 558	

	United Nations Secretariat scale		Basel Convention (BCL)				otterdam ((RO		Stockholm Convention (SCL)			
	Party	United Nations scale		BC adjusted scale, per cent	Average annual contribution for biennium		RC adjusted scale, per cent	Average <u>annual</u> contribution for biennium		SC adjusted scale, per cent	Average <u>annual</u> contribution for biennium	
	Remarks	(1)		(2)	(4)	-	(3)	(4)		(3)	(4)	
	-	Per cent	No.	Per cent	United States dollars	No.	Per cent	United States dollars	No.	Per cent	United States dollars	
79	Iran (Islamic Republic of)	0.471	78	0.589	28 426	64	0.597	18 795	75	0.623	30 426	
80	Iraq	0.129	79	0.161	7 785	-	n.a.	n.a.	76	0.171	8 333	
81	Ireland	0.335	80	0.419	20 218	65	0.425	13 368	77	0.443	21 641	
82	Israel	0.430	81	0.538	25 951	66	0.545	17 159	-	n.a.	n.a.	
83	Italy	3.748	82	4.687	226 200	67	4.754	149 562	-	n.a.	n.a.	
84	Jamaica	0.009	83	0.011	543	68	0.011	359	78	0.010	488	
85	Japan	9.680	84	12.105	584 208	69	12.279	386 274	79	12.804	625 321	
86	Jordan	0.020	85	0.025	1 207	70	0.025	798	80	0.026	1 292	
87	Kazakhstan	0.191	86	0.239	11 527	71	0.242	7 622	81	0.253	12 338	
88	Kenya	0.018	87	0.023	1 086	72	0.023	718	82	0.024	1 163	
89	Kiribati	0.001	88	0.001	60	-	n.a.	n.a.	83	0.010	488	
90	Kuwait	0.285	89	0.356	17 200	73	0.362	11 373	84	0.377	18 411	
91	Kyrgyzstan	0.002	90	0.003	121	74	0.010	315	85	0.010	488	
92	Lao People's Democratic Republic	0.003	91	0.004	181	75	0.010	315	86	0.010	488	
93	Latvia	0.050	92	0.063	3 018	76	0.063	1 995	87	0.066	3 230	
94	Lebanon	0.046	93	0.058	2 776	77	0.058	1 836	88	0.061	2 972	
95	Lesotho	0.001	94	0.001	60	78	0.010	315	89	0.010	488	
96	Liberia	0.001	95	0.001	60	79	0.010	315	90	0.010	488	
97	Libya	0.125	96	0.156	7 544	80	0.159	4 988	91	0.165	8 075	
98	Liechtenstein	0.007	97	0.009	422	81	0.010	315	92	0.010	488	
99	Lithuania	0.072	98	0.090	4 345	82	0.091	2 873	93	0.095	4 651	
100	Luxembourg	0.064	99	0.080	3 863	83	0.081	2 554	94	0.085	4 134	
	Madagascar	0.003	100	0.004	181	84	0.010	315	95	0.010	488	
102		0.002	101	0.003	121	85	0.010	315	96	0.010	488	
103		0.322		0.403	19 433	86	0.408	12 849	_	n.a.	n.a.	
104	•		103	0.003	121	87	0.010	315	97	0.010	488	
105	Mali	0.003	104	0.004	181	88	0.010	315	98	0.010	488	
106		0.016	105	0.020	966	89	0.020	638	99	0.021	1 034	
107	Marshall Islands	0.001		0.001	60	90	0.010		100	0.010	488	
108	Mauritania	0.002		0.003	121	91	0.010		101	0.010	488	
109	Mauritius	0.012		0.015	724	92	0.015		102	0.016	775	
110		1.435		1.795	86 605	93	1.820	57 263		1.898	92 700	
111	Micronesia (Federated States of)	0.001		0.001	60	-	n.a.		104	0.010	488	
112		0.010	111	0.013	604	-	n.a.	n.a.	105	0.013	646	
113	Mongolia	0.005		0.006	302	94	0.010		106	0.010	488	
114	Montenegro	0.004		0.005	241	95	0.010		107	0.010	488	
115	Morocco	0.054		0.068	3 259	96	0.068	2 155		0.071	3 488	
116		0.004		0.005	241	97	0.010		109	0.010	488	
117	Myanmar	0.010		0.010	483	-	n.a.		110	0.010	488	
	Namibia	0.010		0.013	604	98	0.519	16 334		0.013	646	
0		0.010	/	0.015	007	, 0	0.01)	10 004		0.015	0.10	

	United Nations Secretariat scale			asel Conve	ntion (BCL)	R	Cotterdam C (RO		Stockholm Convention (SCL)		
	Party	United Nations scale		BC adjusted scale, per cent	Average <u>annual</u> contribution for biennium		RC adjusted scale, per cent	Average <u>annual</u> contribution for biennium		SC adjusted scale, per cent	Average annual contribution for biennium
	Remarks	(1)		(2)	(4)		(3)	(4)		(3)	(4)
	-	Per cent	No.	Per cent	United States dollars	No.	Per cent	United States dollars	No.	Per cent	United States dollars
119	Nauru	0.001	118	0.001	60	-	n.a.	n.a.	112	0.010	488
120	Nepal	0.006	119	0.008	362	99	0.010	315	113	0.010	488
121	Netherlands	1.482	120	1.853	89 442	100	1.880	59 138	114	1.960	95 736
122	New Zealand	0.268	121	0.335	16 174	101	0.340	10 694	115	0.354	17 313
123	Nicaragua	0.004	122	0.005	241	102	0.010	315	116	0.010	488
124	Niger	0.002	123	0.003	121	103	0.010	315	117	0.010	488
125	Nigeria	0.209	124	0.261	12 614	104	0.265	8 340	118	0.276	13 501
126	Niue	0.001		n.a.	n.a.	-	n.a.	n.a.	119	0.010	488
127	Norway	0.849	125	1.062	51 239	105	1.077	33 879	120	1.123	54 845
128	Oman	0.113	126	0.141	6 820	106	0.143	4 509	121	0.149	7 300
129	Pakistan	0.093	127	0.116	5 613	107	0.118	3 711	122	0.123	6 008
130	Palau	0.001	128	0.001	60	-	n.a.	n.a.	123	0.010	488
131	Panama	0.034	129	0.043	2 052	108	0.043	1 357	124	0.045	2 196
132	Papua New Guinea	0.004	130	0.005	241	_	n.a.	n.a.	125	0.010	488
133	Paraguay	0.014		0.018	845	109	0.018	559	126	0.019	924
134	Peru	0.136	132	0.170	8 208	110	0.173	5 427	127	0.180	8 786
135	Philippines	0.165	133	0.206	9 958	111	0.209	6 584	128	0.218	10 659
136	Poland	0.841	134	1.052	50 756	112	1.067	33 560		1.112	54 328
137	Portugal	0.392		0.490	23 658	113	0.497	15 643		0.519	25 323
138	Qatar	0.269	136	0.336	16 235	114	0.341	10 734		0.356	17 377
139	Republic of Korea	2.039	137	2.550	123 058	115	2.586	81 365		2.697	131 718
140	Republic of Moldova	0.004	138	0.005	241	116	0.010		133	0.010	488
	Romania	0.184		0.230	11 105		0.233	7 342		0.243	11 886
142	Russian Federation	3.088		3.862	186 367		3.917	123 225		4.085	199 483
	Rwanda	0.002		0.003	121	119	0.010		136	0.010	488
144	Saint Kitts and Nevis	0.001		0.001	60	120	0.010		137	0.010	488
145	Saint Lucia	0.001		0.001	60	_	n.a.		138	0.010	488
146	Saint Vincent and the Grenadines	0.001		0.001	60	121	0.010		139	0.010	488
147	Samoa	0.001	145	0.001	60	122	0.010	315	140	0.010	488
148		0.001		0.001	60	123	0.010		141	0.010	488
149	Saudi Arabia	1.146	147	1.433	69 163	124	1.454	45 730	142	1.516	74 031
150	Senegal	0.005	148	0.006	302	125	0.010	315	143	0.010	488
151	Serbia	0.032	149	0.040	1 931	126	0.041	1 277	144	0.042	2 067
152	Seychelles	0.001	150	0.001	60	-	n.a.		145	0.010	488
153	Sierra Leone	0.001	151	0.001	60	127	0.010	315	146	0.010	488
154	Singapore	0.447		0.559	26 977	128	0.567	17 837		0.591	28 876
155	Slovakia	0.160		0.200			0.203	6 385		0.212	10 336
156	Slovenia	0.084		0.105	5 070	130	0.107	3 352		0.111	5 426
157	Solomon Islands	0.001		n.a.	n.a.	-	n.a.		150	0.010	488
158	Somalia	0.001	155	0.001	60	131	0.010		151	0.010	488
159	South Africa	0.364		0.455	21 968		0.462	14 525		0.481	23 514
		0.501	-20	0.100	21 700	-52	3.102	1.525		3.101	23 314

	United Nations Secretariat scale			Basel Convention (BCL)			otterdam ((RO		Stockholm Convention (SCL)			
	Party	United Nations scale		BC adjusted scale, per cent	Average <u>annual</u> contribution for biennium		RC adjusted scale, per cent	Average <u>annual</u> contribution for biennium		SC adjusted scale, per cent	Average <u>annual</u> contribution for biennium	
	Remarks	(1)		(2)	(4)		(3)	(4)	-	(3)	(4)	
	-	Per cent	No.	Per cent	United States dollars	No.	Per cent	United States dollars	No.	Per cent	United States dollars	
160	Spain	2.443	157	3.055	147 440	133	3.099	97 486	153	3.231	157 816	
161	Sri Lanka	0.031	158	0.039	1 871	134	0.039	1 237	154	0.041	2 003	
162	State of Palestine	0.001	159	0.001	60	-	n.a.	n.a.	-	n.a.	n.a.	
163	Sudan	0.010	160	0.010	483	135	0.010	315	155	0.010	488	
164	Suriname	0.006	161	0.008	362	136	0.010	315	156	0.010	488	
165	Swaziland	0.002	162	0.003	121	137	0.010	315	157	0.010	488	
166	Sweden	0.956	163	1.196	57 697	138	1.213	38 149	158	1.265	61 757	
167	Switzerland	1.140	164	1.426	68 801	139	1.446	45 491	159	1.508	73 643	
168	Syrian Arab Republic	0.024	165	0.030	1 448	140	0.030	958	160	0.032	1 550	
169	Tajikistan	0.004	166	0.005	241	-	n.a.	n.a.	161	0.010	488	
170	Thailand	0.291	167	0.364	17 562	141	0.369	11 612	162	0.385	18 798	
171	The former Yugoslav Republic of Macedonia	0.007	168	0.009	422	142	0.010	315	163	0.010	488	
172	Togo	0.001	169	0.001	60	143	0.010	315 165 0.010		488		
173	Tonga	0.001	170	0.001	60	144	0.010	315	165	0.010	488	
174	Trinidad and Tobago	0.034	171	0.043	2 052	145	0.043	1 357	166	0.045	2 196	
175	Tunisia	0.028	172	0.035	1 690	146	0.036	1 117	167	0.037	1 809	
176	Turkey	1.018	173	1.273	61 438	_	n.a.	n.a.	168	1.347	65 762	
177	Turkmenistan	0.026	174	0.033	1 569	_	n.a.	n.a.	_	n.a.	n.a.	
178	Tuvalu	0.001		n.a.	n.a.	_	n.a.	n.a.	169	0.010	488	
179	Uganda	0.009	175	0.010	483	147	0.010	315	170	0.010	488	
180	Ukraine	0.103	176	0.129	6 216	148	0.131	4 110	171	0.136	6 654	
181	United Arab Emirates	0.604	177	0.755	36 453	149	0.766	24 102	172	0.799	39 018	
	United Kingdom of Great Britain and Northern Ireland	4.463		5.581	269 351		5.661	178 093		5.903	288 307	
183	United Republic of Tanzania	0.010	179	0.010	483	151	0.010	315	174	0.010	488	
184	Uruguay	0.079	180	0.099	4 768	152	0.100	3 152	175	0.104	5 103	
185	Uzbekistan	0.023	181	0.029	1 388	-	n.a.	n.a.	-	n.a.	n.a.	
186	Vanuatu	0.001		n.a.	n.a.	-	n.a.	n.a.	176	0.010	488	
187	Venezuela	0.571	182	0.714	34 461	153	0.724	22 785	177	0.755	36 886	
188	Viet Nam	0.058	183	0.073	3 500	154	0.074	2 314	178	0.077	3 747	
189	Yemen	0.010	184	0.010	483	155	0.010	315	179	0.010	488	
190	Zambia	0.007	185	0.009	422	156	0.010	315	180	0.010	488	
191	Zimbabwe	0.004		0.005	241	157	0.010		181	0.010	488	
	Total (annual)	80.490		100.000	4 826 060		100.000	3 145 813		100.000	4 883 825	
	Total (biennium)				9 652 121			6 291 627			9 767 650	

Remarks.

⁽¹⁾ United Nations scale of assessment per General Assembly resolution 70/245, adopted at the seventieth session of the General Assembly for the years 2016, 2017 and 2018 on 23 December 2015

⁽²⁾ Per rule 5, paragraph 1 (a), of the financial rules of the Basel Convention, contributions made each year by Parties should be based on an indicative scale based on the United Nations scale approved by the General Assembly and should be adjusted to

ensure that (i) no Party contributes less than 0.001 per cent of the total, (ii) no one contribution exceeds 22 per cent of the total and (iii) no contribution from a least developed country Party exceeds 0.01 per cent of the total.

- (3) Per rule 5, paragraph 1 (a), of the financial rules of the Rotterdam and Stockholm conventions, contributions made each year by Parties should be based on an indicative scale based on the United Nations scale approved by the General Assembly and should be adjusted to ensure that (i) no Party contributes less than 0.01 per cent of the total, (ii) no one contribution exceeds 22 per cent of the total and (iii) no contribution from a least developed country Party exceeds 0.01 per cent of the total.
- (4) This is the annual contribution to be paid by the Parties both in 2018 and 2019. It is the same for both years and is based on the total required funds for the biennium and the average requirement for the year.

 ${\bf Table~3} \\ {\bf Indicative~staffing~table~for~the~Secretariat~of~the~Basel,~Rotterdam~and~Stockholm~conventions~for~the~biennium~2018–2019}$

Staff category and level	Approve		7 Basel, Rotterda n conventions	am and	Total proposed 2018–2019 Basel, Rotterdam and Stockholm conventions					
	Core funded	In-kind by FAO	UNEP programme support costs	Total	Core funded	In-kind by FAO	UNEP programme support costs	Total		
A. Professional category										
D-2 level	1.00	0.25	-	1.25	1.00	0.25	-	1.25		
D-1 level	1.00	_	_	1.00	1.00	_	_	1.00		
P-5 level	7.50	_	_	7.50	7.00	_	_	7.00		
P-4 level	8.00	_	2.00	10.00	7.00	_	2.00	9.00		
P-3 level	17.50	1.00	_	18.50	16.00	1.00	_	17.00		
P-2 level	2.00	_	_	2.00	2.00	_	_	2.00		
Subtotal A	37.00	1.25	2.00	40.25	34.00	1.25	2.00	37.25		
B. General Service category										
GS	13.00	1.25	6.00	20.25	12.00	1.25	6.00	19.25		
Subtotal B	13.00	1.25	6.00	20.25	12.00	1.25	6.00	19.25		
TOTAL (A+B)	50.00	2.50	8.00	60.50	46.00	2.50	8.00	56.50		
Remarks	(1)	(2)	(3)		(1)	(2)	(3)			

Remarks:

- (1) Post funded by assessed contributions.
- (2) Provided by FAO as an in in-kind contribution in its capacity as part of the Rotterdam Convention Secretariat.
- (3) Funded by the programme support cost of 13 per cent accrued from both assessed (core) and voluntary contributions; includes finance, administration and logistics staff.

Posts funded from voluntary special and technical cooperation trust funds (used for costing purposes only)

Staff category and level	Approved 2016–2017 Basel, Rotterdam and Stockholm conventions	Total proposed 2018–2019 Basel, Rotterdam and Stockholm conventions		
A. Professional category				
D-2 level	_	_		
D-1 level	_	-		
P-5 level	_	-		
P-4 level	1.00			
P-3 level	5.25	1.00		
P-2 level		-		
Subtotal A	6.25	1.00		
B. General Service category				
GS	4.00	1.00		
Subtotal B	4.00	1.00		
TOTAL (A+B)	10.25	2.00		
Remarks		(1)		

Remarks:

(1) Voluntarily-funded staff will be recruited only if funds are available.

Projected salary costs for Geneva for the biennium 2018–2019 (United States dollars)

		2016	2017	2018	2019	2018–2019
A.	Professional category	-	-	-		
	D-2	332 988	339 648	346 441	353 370	699 811
	D-1	332 988	339 648	346 441	353 370	699 811
	P-5	295 207	301 111	307 133	313 276	620 409
	P-4	224 791	229 287	233 873	238 550	472 423
	P-3	183 774	187 449	191 198	195 022	386 221
	P-2	144 919	147 817	150 773	153 789	304 562
B.	General Service category					
	GS	131 318	133 945	136 623	139 356	275 979
C.	Other direct personnel costs					
	Retirement and replacement recruitment costs					351 115
	ASHI costs	116 000	117 624	119 271	120 941	240 211
	Remarks	(1)	(2)	(2)	(2)	(3), (4)

Remarks:

- (1) Average actual salary costs including staff entitlement of BRS Geneva staff for 2016 was used as basis to project future salary costs.
- (2) Staff costs for 2017, 2018 and 2019 were estimated by using the actual costs of 2016 with an increase of 2 per cent per annum to cover for salary step increase, inflation, exchange rate fluctuations and unexpected adverse movements in salary costs.
- (3) The projected actual salary costs for the biennium exclude the estimated retirement and recruitment costs of a total of USD 351,115 for 4 staff members for staff due to retire and their replacements. The retirement/recruitment costs are an integral part of the staffing costs and have been added separately.
- (4) After service health insurance (ASHI) is a new staff-related cost that is 3 per cent of the net base salary of every staff member and is mandatory in the United Nations Secretariat as at 1 January 2017. These costs were not yet mandatory in 2016 and thus are included separately.

Projected salary costs for Rome for the biennium 2018–2019 (United States dollars)

	Staff category and level	2016	2017	2018	2019	2018–2019
A.	Professional category					
	P-5	220 381	224 788	229 284	233 870	463 154
	P-4	228 301	232 867	237 524	242 274	479 798
	P-3	185 452	189 161	192 944	196 803	389 747
	P-2	136 869	139 607	142 399	145 247	287 645
B.	General Service category					
	GS	94 042	95 923	97 842	99 799	197 640
C.	Other direct personnel costs					
	ASHI costs	22 000	22 308	22 620	22 937	45 557
	Remarks	(1)	(2)	(2)	(2)	(2), (3)

Remarks:

- (1) Average actual salary costs including staff entitlements and improved cost recovery uplift (ICRU) in respect of Rome staff for 2016 was used as a basis to project future salary costs.
- (2) Staff costs for 2017, 2018 and 2019 were estimated by using the actual costs of 2016 increased bys2 per cent per annum. No retirement or recruitment costs were included in the estimates.
- (3) After service health insurance (ASHI) is a new staff-related cost that is 3 per cent of the net base salary of every staff member and is mandatory in the United Nations Secretariat as at 1 January 2017. These costs were not yet mandatory in 2016 and thus are included separately.

Annex II

Report of the high-level segment of the 2017 meetings of the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions

1. The high-level segment of the meetings of the Conferences of the Parties to the Basel, Rotterdam and Stockholm conventions took place on the afternoon of Thursday, 4 May 2017, and the morning of Friday, 5 May 2017, focusing on the theme "A future detoxified: sound management of chemicals and waste". The segment comprised a ceremony to mark recent ratifications of the Basel Convention Ban Amendment; introductory statements by the members of a high-level panel; twelve simultaneous ministerial round-table discussions; and a presentation and discussion of the key messages emerging from the round-table discussions.

I. Opening of the high-level segment

- 2. Following a performance of traditional Swiss music, Ms. Corinne Momal-Vanian, Director of the Division of Conference Management of the United Nations Office at Geneva, welcomed the participants to the high-level segment.
- 3. Opening remarks were made by Mr. Marc Chardonnens (Switzerland), Chair of the high-level segment of the 2017 meetings of the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions; Mr. Sam Adu-Kumi (Ghana), President of the Conference of the Parties to the Stockholm Convention, speaking also on behalf of the presidents of the conferences of the Parties to the Basel and Rotterdam conventions; Mr. Erik Solheim, Executive Director of the United Nations Environment Programme (UNEP); Ms. Naoko Ishii, Chief Executive Officer and Chair of the Global Environment Facility (GEF); and Ms. Maria Helena Semedo, Deputy Director-General for Climate and Natural Resources of the Food and Agriculture Organization of the United Nations (FAO). Ms. Kate Gilmore, United Nations Deputy High Commissioner for Human Rights, then delivered a keynote speech.
- 4. In his opening remarks, Mr. Chardonnens welcomed the participants, extending particular greetings to the Executive Director of UNEP, the executive secretaries of the Basel, Rotterdam and Stockholm conventions and the presidents of the conferences of the Parties to the three conventions. The national and international focus on the Sustainable Development Goals, he said, was contributing to the mainstreaming of sustainable chemicals and waste management in development, environmental and economic plans, and the Basel, Rotterdam and Stockholm conventions, together with the Minamata Convention on Mercury, constituted the cornerstones of an environmental governance structure. He urged countries to ratify the Minamata Convention. While congratulating the Parties on the listing of several chemicals in the Rotterdam and Stockholm conventions at the current meeting, he said that the conventions must either be amended or complemented by additional instruments to ensure the sound management of chemicals and waste throughout their lifecycles. He called on Parties to be ambitious and to collaborate to enhance the effectiveness of the three conventions, saying that the cost of failing to do so was too high.
- 5. Highlighting the improvement in cooperation and coordination among the Basel, Rotterdam and Stockholm conventions, he said that it must continue to counter fragmentation and ensure that the conventions could face the challenges of a globalized world with innovative technology. Highlighting the need for adequate means to meet the challenges, he welcomed the increased funding for chemicals and waste management in the most recent GEF replenishment. He called on Governments to lead by example, including by acting as convenors and enablers, and he stressed the importance of multi-stakeholder partnerships such as the Mobile Phone Partnership Initiative and the Partnership for Action on Computing Equipment under the Basel Convention, in finding and implementing solutions to specific problems. As important as it was to respond immediately to pressing issues, however, he also underscored the need to think strategically about long-term objectives and to adopt the policies required to achieve them.
- 6. Mr. Adu-Kumi, in his welcoming remarks, said that the high-level segment provided an opportunity to reflect not only on the intensive work conducted during the 2017 meetings but also on the links between that work and the many broader environmental and sustainable development issues facing humanity. In that context, the Basel, Rotterdam and Stockholm conventions demonstrated synergy at its best and exemplified the beauty of unity and diversity. The theme of the meetings, "A future detoxified: sound management of chemicals and waste", had captured imaginations and brought home the message that combined efforts and a common cross-cutting approach were key to achieving

that aim. The full commitment of all stakeholders, especially those at the highest level, was thus crucial to driving forward the global agenda on chemicals and waste.

- 7. Mr. Solheim said that it was gratifying that so many from around the world had gathered for the 2017 meetings of the conferences of the Parties, as they were doing in increasing numbers at other events to address global problems and improve lives. Indeed, the positive results achieved through the 2017 meetings showed that there was no limit to what could be accomplished by coordinating efforts toward a common goal, as already amply demonstrated by such successes as the implementation of the Montreal Protocol on Substances that Deplete the Ozone Layer, the signing and imminent entry into force of the Minamata Convention on Mercury and the eradication and control of such diseases as poliomyelitis, measles and smallpox. The next great ambition of achieving a pollution-free world was likewise achievable by setting the tone and direction for the global efforts and decisive national actions that it would require. But achieving that goal would also require a fair world in which developed countries provided technical assistance to others in pursuit of shared objectives, with Governments, civil society and the private sector all playing their parts. Chemicals undoubtedly provided enormous benefits to the world but their proper control was critical, particularly in what was a rapidly changing scientific environment. It was only by working together to find solutions to such issues that humanity would fully reap those benefits.
- Ms. Ishii began by highlighting how much the international situation had changed over the preceding two years with the adoption of milestone international agreements and a shift towards action and implementation of the sustainability agenda. The chemicals and waste agenda was emerging as the catalyst for sound economic and social systems, she said, but was tied to key economic systems and needed to be addressed systematically. With global pollution worsening at alarming rates and the continued use of toxic chemicals putting unsustainable pressure on the global environment, business as usual could not continue. With a rising world population and a growing middle class, production and consumption patterns had to be transformed; cities, industries and the food system had to be transformed to embrace supply chain interventions, innovative waste management approaches and alternatives to harmful chemicals. Economic sectors such as manufacturing, building and agriculture were highly dependent on chemicals, but also presented opportunities to reduce chemicals and waste through innovative approaches such as green chemistry and the circular economy and opportunities for synergies in climate action, responsible consumption, life on land and other areas covered by the Sustainable Development Goals. Noting that the seventh replenishment of the GEF trust fund would be informed by the outcome of the current meetings, she called for urgent work to bring about transformation through political leadership, coalitions for change and innovation. She closed her remarks by expressing the commitment of GEF to working with all Parties on the journey towards a future detoxified.
- Ms. Semedo opened her remarks by saying that although access to food was the most basic human right, nearly 800 million people, most living in rural areas, still suffered from hunger. The world's poor and hungry were the most vulnerable to the adverse effects of harmful pesticides and chemicals and waste. Growth in the agriculture sector remained one of most cost-effective means for developing countries to reduce poverty and end food insecurity, but sustainable agriculture must also contribute to detoxifying the air, water and soil. As an example of the work of FAO towards that end, she drew attention to the International Code of Conduct on Pesticide Management, developed jointly with the World Health Organization, to help avert the negative consequences of pesticide misuse, including the decline in the populations of birds, insects and other pollinators vital to food production. She also noted efforts by FAO, in partnership with UNEP, to prevent the accumulation of microplastics in the marine environment, a growing concern for fisheries. Overall, FAO was committed to exploring innovative solutions, supporting dialogue, sharing information and enabling policies for sustainable agriculture, and promoted ecosystem approaches to achieve its aims. The farming, fishery and forestry sectors had demonstrated their ability to work together to share knowledge and expertise in finding innovative approaches to developing more effective, efficient and resilient production systems, but robust government structures, strong institutions, ministerial collaboration and international cooperation were required for countries to benefit more fully from global instruments such as the Basel, Rotterdam and Stockholm conventions. While good progress had been made in putting together mechanisms, frameworks and instruments at the national, regional and global levels, greater political will was needed to take advantage of them.
- 10. In her keynote speech, Ms. Gilmore likened the relationship between the sound management of chemicals and waste and the protection of human rights to a long-term marriage in which commitment had not always been strong, illustrating the point with the mercury poisoning in Minamata, Japan, that had given rise to the adoption of the Minamata Convention, the first recognized case of which had involved a child. Children were particularly vulnerable to the effects of toxic chemicals, but in what could be termed a silent pandemic the consequences might not manifest for many years. Almost every

country had ratified the Convention on the Rights of the Child, which, in Article 24, required States Parties to ensure adequate food and clean drinking water for children, taking into consideration the dangers and risks of environmental pollution. The story of the Minamata mercury poisoning demonstrated many issues with regard to the relationship between chemicals and waste management and human rights, including the power of community engagement to provide early warning; the rights of individuals and communities to receive information; the danger of stigmatization of and discrimination against the victims of toxic poisoning; the hindering of a prompt and effective response; the ability of large corporations to obstruct investigations into their malpractice, instil fear into their employees and neglect the rights of victims; and the harm that could result when the State sided with business over its citizens.

11. Humans were central to the inviolable, intricate relationship between biodiversity, species protection, environmental sustainability and human habitat, which broke down if humans were disconnected or disempowered. People had to be at the centre of the story, as they were the planet's greatest natural resource. Article 27 of the Universal Declaration of Human Rights asserted the right of everyone to share in scientific advancement and its benefits. Interference with that right for political or commercial purposes was a betrayal of human rights. Legal obligations must empower the State to oblige accountability from those whose resources and activities had the potential to cause great harm, even in the context of manufacture that could create great benefit. If it abandoned those responsibilities, it was derogating from its responsibilities as a State. Collateral damage to people and their rights in the pursuit of prosperity should not be allowed. Freedom of information was a fundamental human rights obligation, and a fundamental responsibility of the State. In conclusion, she said that the chemicals and human rights sectors should be partners in using the various measures at their disposal, including international agreements and instruments, and national legislation and political responsibility, to ensure commitment to human rights within the development nexus.

II. Round-table discussions

- 12. Following the opening of the high-level segment ministers, deputy ministers and ambassadors engaged in 12 simultaneous round-table discussions on the theme of the session: "A future detoxified: Sound management of chemicals and waste". Each round table was served by a high-level moderator from the United Nations Secretariat or other United Nations entity. A number of resource persons also participated in the round-table discussions. The composition of the round tables is set out in appendix I to the present report.
- 13. For the purposes of the ministerial round-table discussions the theme was subdivided into three sub-themes:
- (a) Opportunities for a detoxified future in the 2030 Agenda for Sustainable Development and its Sustainable Development Goals;
 - (b) Opportunities for strengthened implementation through partnerships;
- (c) Opportunities for reducing waste and pollution while enabling economic and social prosperity.
- 14. Following the round-table discussions, Mr. Tim Kasten, Deputy Director of the Economy Division of the United Nations Environment Programme, presented a compilation of the messages emerging therefrom.
- 15. The members of a ministerial panel representing the round-table discussions then reacted to the messages, with other participants from the discussions adding their views. The panel members were Ms. Arlette Sombo-Dibele, Minister of Environment, Sustainable Development, Water, Forests, and Hunting and Fishing (Central African Republic); Ms. Rosalie Matondo, Minister of Forest Economy, Sustainable Development and Environment (Congo); Mr. Khaled M. Fahmy, Minister of Environment (Egypt); Mr. Sydney A. Samuels, Minister of Environment and Natural Resources (Guatemala); Mr. Noel Holder, Minister of Agriculture (Guyana); Ms. Carole Dieschbourg, Minister of Sustainable Development and Infrastructure (Luxembourg); Mr. Etienne Didier Dogley, Minister of Environment, Energy and Climate Change (Seychelles); Mr. Singappuli Premajayantha, Minister of Environment and Renewable Energy (Sri Lanka) and Ms. O.C.Z. Muchinguri, Minister of Environment, Water and Climate (Zimbabwe).
- 16. In their reactions and comments, the panel members and other participants in the round-table discussions referred to some of the key issues identified as priorities across the three themes of the high-level segment, with many highlighting the role of the Basel, Rotterdam and Stockholm conventions in promoting implementation of the Sustainable Development Goals and in turn the

achievement of social and economic prosperity. In that context, numerous speakers mentioned the importance of synergies and of harmonizing national development plans with the Sustainable Development Goals, including as a way of facilitating the vital task of monitoring implementation. Several emphasized chemical and waste management as a priority for all, with another saying that immediate action to reduce pollution from chemical waste would be much less costly than dealing in the future with the consequences of inaction. Several speakers said that there was a need for robust legislation and regulations to control chemical and other wastes and imports of hazardous substances.

- 17. Several speakers said that institutional capacity-building was vital to ensuring the enforcement of relevant laws and regulations, particularly in developing countries, which should also receive training and guidance designed to promote implementation of the Basel, Rotterdam and Stockholm conventions. Many said that it was important to share knowledge, experiences and solutions to that end, including through scientific research and technology transfer. One speaker said that information and data must be transparent and readily available at all stages, including with regard to the life cycle of all products. In the interests of an integrated approach, numerous speakers emphasized the vital need for broad cooperation and partnership at the national, regional and global levels among all stakeholders, including Governments, ministries, civil society, academia, industry and business, with one saying that care must be taken to avoid any duplication of effort.
- 18. Various speakers also spoke of awareness-raising and education among the public, consumers and manufacturers as matters for attention. One said that financial assistance should be provided for that purpose and others said that simple language should be used to communicate the messages of the three conventions to the public. Other issues highlighted by speakers included a need to focus on the "3Rs" (reduce, reuse, recycle); waste management training for operators; innovative mechanisms for financing waste treatment centres; plastics and marine litter; price incentives to promote waste reduction; and, notably, the provision of financial assistance for building the capacities of small island developing States, other developing countries and least developed countries in the sound management of chemicals and waste. One said that the circular economy had its benefits but that care must be taken to ensure that recycled products did not contain toxins.
- 19. Speakers also said that there was a need for high-level commitment, political will, political coherence and a long-term strategic vision and framework for chemicals and waste management, with the last said to be a cross-cutting issue that called for strong institutional structures. Others placed emphasis on gender in policymaking, ethical policymaking and corruption. One speaker highlighted the problem of the dumping of used vehicles and equipment and another called for measures to stop occupying authorities from dumping chemical wastes and building chemical production facilities in the territories that they occupied.
- 20. The moderator then opened the floor for general discussion and comments, with responses from the panellists.
- 21. In the ensuing discussion many representatives spoke of a need for cooperation and coordination between all stakeholders at all levels. One panellist said that the fact that a number of countries did not produce toxic chemicals but still used them, for example in the case of fertilizers and pesticides to increase food security, was itself an argument for cooperation, including between chemical producers and end users. Another panellist spoke of a need for cooperation among entities at the national level, for example between different ministries, to facilitate coherent national action. She also said that the concept of a circular economy implied the need for all stakeholders to work together at the regional level in order to share best practices and identify opportunities and benefits, while maintaining connectivity with issues at the global and national levels.
- 22. Several representatives spoke of the scale of the challenge of managing chemicals and wastes in a sound and sustainable manner. One representative said that least developed countries were particularly vulnerable because they lacked the necessary infrastructure; the question was how to articulate action at the global, regional and national levels to provide effective solutions to the problems facing those countries. In response, a panellist said that the common agreement on waste management of the Central African Economic and Monetary Community served as an example of how cross-border alignment of regulatory measures could facilitate the management of wastes at the regional or subregional level. Another panellist said that controlling cross-border trade in hazardous substances was more difficult when there were disparities in the relevant regulations of neighbouring countries. One representative said that regional centres had a role to play in sharing good regulatory and policy practices among the countries of their regions. Another representative expressed concern at the lack of progress made in dealing with certain hazardous chemicals at successive meetings of the conferences of the Parties to the Rotterdam and Stockholm conventions. Another representative said

that it was important to promote awareness-raising and education, including in schools and the media, in order to disseminate the messages of the Basel, Rotterdam and Stockholm conventions.

- 23. Several representatives spoke of the importance of gender in the sound management of chemicals and wastes. One panellist said that insufficient attention was given to the exposure and vulnerability of women in the mining sector, for example when fetching contaminated water. Another panellist said that it was important to build the capacity of women and raise awareness of gender issues so that more women filled positions of responsibility. Another panellist said that the matter of gender should be strongly institutionalized, for example in national constitutions or through the establishment of gender commissions and clear gender-inclusive policies. Another panellist said that there was a tendency to focus on the vulnerability of women rather than on the strong roles they played in many sections of society. Another panellist said that gender concerned not only the role of women but also the interaction of both sexes, including with regard to their roles at the household and community levels, for example in the area of hazardous waste management in the home. Another panellist said that as gender equality was one of the Sustainable Development Goals (Goal 5) the gender dimension should be included in chemicals and waste management planning given the indivisibility of all the Sustainable Development Goals.
- Several participants said that developing countries would need financial, technical and other assistance to realize their goals with regard to the sound management of chemicals and waste. One panellist said that there was a danger of funding bias, whereby donors funded larger, more regionally prominent countries or blocs of countries rather than States that were smaller but just as in need. Another panellist said that fiscal measures could be utilized to ensure that funds were levied for environment-related programmes and to support capacity-building and awareness raising. One panellist said that efforts should be made to streamline the often cumbersome processes by which international financing was made available and to provide training to countries in the design of bankable projects, while another panellist highlighted the difficulties that developing countries often faced in aligning their project needs with donor requirements. Another panellist drew attention to the relationship between financial resources and compliance, stating that while there was general political will for compliance with the objectives of the Basel, Rotterdam and Stockholm conventions, funding mechanisms were often inadequate to generate the necessary financing. Another panellist said that policy coherence was important to facilitate financing and that there was a need for donor and recipient countries to agree on such matters as the polluter pays principle, climate neutrality and waste reduction.
- 25. Following the discussion the moderator thanked the panellists and other participants for their contributions to what she said was a rich and interesting discussion.
- 26. At the conclusion of the interactive discussion, Mr. Rolph Payet, Executive Secretary of the Basel, Rotterdam and Stockholm Conventions, presented a consolidation of the key messages that emerged from the round-table discussions, which summarized the outcomes of the high-level segment. The key messages are set out in appendix II to the present report.

III. Closure of the high-level segment

27. Closing the high-level segment, Mr. Chardonnens said that the valuable ideas and global perspectives that had informed the discussions and the resulting key messages demonstrated the strength of the multilateral approach and the importance of concerted action to address challenges in an efficient and effective manner. The 2030 Agenda for Sustainable Development provided a unique opportunity for the mainstreaming of the chemicals and waste agenda, to which end he encouraged all stakeholders to continue what he described as sterling work towards the goal of protecting human health and the environment.

Appendix I

Composition of round tables

Round table 1

Moderator: Mr. Steven Stone (United Nations Environment Programme)

Ms. Jeanne Josette Acacha Akoha (Benin)

Mr. Batio Bassière (Burkina Faso)

Mr. Serge Karonkano (Burundi)

Mr. Gilberto Correia Carvalho Silva (Cabo Verde)

Mr. Pierre Hele (Cameroon)

Ms. Rosalie Matondo (Congo)

Mr. Patrick Mayombe-Mumbyoko (Democratic Republic of Congo)

Ms. Aya Thiam Diallo (Mali)

Round table 2

Moderator: Ms. Katharina Kummer (World Health Organization)

Mr. Apolinário Jorge Correia (Angola)

Ms. Arlette Sombo-Dibele (Central African Republic)

Ms. Anne Désirée Ouloto (Côte d'Ivoire)

Ms. Chantal Abengdang Mebaley (Gabon)

Mr. Antonio Serifo Embalo (Guinea-Bissau)

Ms. Benedicte Johanita Ndahimananjara (Madagascar)

Mr. Almoustapha Garba (Niger)

Round table 3

Moderator: Mr. Achim Halpaap (United Nations Environment Programme)

Ms. Khomoatsana Tau (Lesotho)

Mr. Samura M.W. Kamara (Sierra Leone)

Ms. Barbara Thomson (South Africa)

Mr. Christopher Gamedze (Swaziland)

Mr. Sam Cheptoris (Uganda)

Mr. Lloyd Mulenga Kaziya (Zambia)

Ms. O. C. Z. Muchinguri (Zimbabwe)

Round table 4

Moderator: Ms. Monika Linn (Economic Commission for Europe)

Mr. Kare Chawicha Debessa (Ethiopia)

Mr. Kwabena Frimpong-Boateng (Ghana)

Mr. Abdulla Ziyad (Maldives)

Mr. Ibrahim Usman Jibril (Nigeria)

Mr. Etienne Didier Dogley (Seychelles)

Round table 5

Moderator: Mr. Habib N. El-Habr (United Nations Environment Programme)

Mr. Abdul Wali Modaqiq (Afghanistan)

Mr. Mohamed Bindaina (Bharain)

Mr. Khaled Mohamed Fahmy Abdelall (Egypt)

Ms. Saja Majali (Jordan)

Ms. Adalah Atira (State of Palestine)

Mr. Mustafa Osman Ismail Elamin (Sudan)

Mr. Per Ängquist (Sweden)

Mr. Mehmet Ceylan (Turkey)

Mr. Thani bin Ahmed Al Zeyoudi (United Arab Emirates)

Round table 6

Moderator: Mr. Andrey Vasilyev (Economic Commission for Europe)

Mr. Ado Lõhmus (Estonia)

Mr. Gani Sadibekov (Kazakhstan)

Mr. Mindaugas Gudas (Lithuania)

Ms. Carole Dieschbourg (Luxembourg)

Mr. Marek Haliniak (Poland)

Mr. Sergey Kraevoy (Russian Federation)

Ms. Stana Bozovic (Serbia)

Mr. Marc Henri Bruno Chardonnens (Switzerland)

Round table 7

Moderator: Mr. Stephan Sicars (United Nations Industrial Development Organization)

Mr. Abdullah Al Islam Jakob (Bangladesh)

Mr. Gigla Agulashvili (Georgia)

Mr. Noel Holder (Guyana)

Ms. Bounkham Vorachit (Lao People's Democratic Republic)

Mr. Ohn Winn (Myanmar)

Mr. Jay Dev Joshi (Nepal)

Mr. Mykola Kuzyo (Ukraine)

Round table 8

Moderator: Ms. María Neira (World Health Organization)

Mr. Javier Ureta Sáenz Peña (Argentina)

Ms. Cynthia Silva Maturana (Bolivia, Plurinational State of)

Mr. Jair Tannus Junior (Brazil)

Ms. Irene Cañas (Costa Rica)

Mr. Walter Francisco Garcia Cedeño (Ecuador)

Mr. Santiago Francisco Engonga Osono (Equatorial Guinea)

Mr. Sydney Alexander Samuels Milson (Guatemala)

Mr. Carlos Pineda Fasquelle (Honduras)

Mr. Edgardo Alberto Villalobos Jaen (Panama)

Mr. Marcos Gabriel Alegre Chang (Peru)

Mr. Jesus Castillo (Venezuela, Bolivarian Republic of)

Round table 9

Moderator: Mr. Nikhil Seth (United Nations Institute for Training and Research)

Mr. Omar Figueroa (Belize)

Mr. Ty Sokhun (Cambodia)

Mr. Ajay Narayan Jha (India)

Ms. Tuti Hendrawati Mintarsih (Indonesia)

Mr. Shigemoto Kajihara (Japan)

Mr. Joseph Caruana (Malta)

Mr. Singappuli Achchige Don Susil Premajayantha (Sri Lanka)

Mr. Surasak Karnjanarat (Thailand)

Mr. Siaosi Sovaleni (Tonga)

Round table 10

Moderator: Mr. Cosmas L. Zavazava (International Telecommunication Union)

Mr. Yury Ambrazevich (Belarus)

Ms. Beatriz Londoño Soto (Colombia)

Mr. Tae Song Han (Democratic People's Republic of Korea)

Ms. Kadra Ahmed Hassan (Djibouti)

Mr. Wayne McCook (Jamaica)

Mr. Israhyananda Dhalladoo (Mauritius)

Round table 11

Moderator: Ms. Maria Luisa Silva (United Nations Development Programme)

Ms. Lucija Ljubic Lepine (Bosnia and Herzegovina)

Ms. Sundus Al-Bayraqdar (Iraq)

Mr. Janis Karklinš (Latvia)

Mr. Ernest Makawa (Malawi)

Mr. Robert Dufter Salama (Malawi)

Ms. Amatlain Elizabeth Kabua (Marshall Islands)

Mr. Milorad Scepanovic (Montenegro)

Round table 12

Moderator: Mr. Tim Kasten (United Nations Environment Programme)

Mr. Abdulla Nasser Al Rahbi (Oman)

Mr. Farukh Akhter Amil (Pakistan)

Mr. Ahmad Al-Sada (Qatar)

Mr. Kyong-Lim Choi (Republic of Korea)

Ms. Elena Dumitru (Romania)

Mr. François Xavier Ngarambe (Rwanda)

Mr. Yackoley Kokou Johnson (Togo)

Mr. Chi Dung Duong (Viet Nam)

Mr. Ali Mohamed Saeed Majawar (Yemen)

Resource persons

Ms. Maria Helena Semedo (Food and Agriculture Organization)

Mr. Ross Bartley (Bureau of International Recycling)

Mr. David Azoulay (Center for International Environmental Law)

Mr. Klaus Kunz (CropLife International)

Ms. Pamela Miller (International POPs Elimination Network)

Ms. Meriel Watts (Pesticide Action Network Asia Pacific)

Ms. Sascha Gabizon (Women Engage for a Common Future International)

Appendix II

Key messages emerging from the high-level segment of the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions

Overall messages

- 1. With the adoption of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals the political momentum for a detoxified planet has increased. This opportunity must be seized.
- 2. There can be no sustainable development without a commitment to a pollution-free planet, and that requires the sound management of chemicals and waste.
- 3. The key to a detoxified future is to take action now, including through the implementation by all Parties of all the provisions of the Basel, Rotterdam and Stockholm conventions, which should be translated into national legislation, policy and actions.

On opportunities for a detoxified future in the 2030 Agenda for Sustainable Development

- 4. The sound management of chemicals and wastes is central to achieving the three dimensions of sustainable development and should be dealt with as a priority in a mutually supportive way to achieve the 2030 goals. It is also central to addressing poverty, food security, access to water, human rights and gender issues, particularly for women, children and vulnerable populations, and is linked to addressing climate change and the protection of biodiversity. With the obvious link between the Sustainable Development Goals and the Basel, Rotterdam and Stockholm conventions, and the many cross-sectoral aspects of that link, the chemicals and wastes-related Sustainable Development Goals cannot be achieved unless the conventions are implemented effectively.
- 5. The 2030 Agenda provides a unique opportunity for mainstreaming chemicals and wastes--related issues into national sustainable development plans and for the development of business cases for the sound management of chemicals and wastes. Institutional frameworks at all levels and policy coherence across all sectors must be strengthened. This requires strong political will, cooperation and community and end-user awareness, as well as partnerships at all levels.
- 6. Furthermore, the 2030 Agenda provides specific targets that support commitment to the sound management of chemicals and wastes in order to protect human health and the environment. The importance of increasing efforts to achieve the Sustainable Development Goals through a focus on poverty reduction strategies recognizing that the poor are the most affected by pollution, including through the extensive use of chemicals in agriculture, is clear.
- 7. There is a need for greater commitment by industry to prevent the pollution of streams and other water bodies that are depended upon by communities, especially those in abject poverty. Industry must play a more proactive role in achieving the Sustainable Development Goals.
- 8. Different levels of development and differing country capacities to address the challenges of chemicals and waste management must be recognized, particularly in small island developing States, least developed countries and vulnerable populations that have limited capacity or access to information necessary to deal with environmental challenges.

On opportunities for strengthened implementation through partnerships

- 9. Increased cooperation and coordination is needed at the national, regional and global levels to implement the conventions effectively. Partnerships have a central role and civil society, business, industry and private sector investment must be fully engaged.
- 10. Partnerships have proved to be useful tools in the implementation of the chemicals and waste agendas and should be further encouraged. Multi-stakeholder partnerships, including those involving the private sector, should be strengthened to promote new technologies, win-win partnerships and innovation in support of the implementation of the conventions.

- 11. Partnerships must be established with all sectors and stakeholders, including with local communities and municipal entities. A bottom-up approach is essential because citizens are the key driver for action. Regional networks can assist in monitoring and managing cross-border issues and civil society groups can help Governments monitor the environment.
- 12. The Basel and Stockholm convention regional centres are uniquely positioned to deliver synergistically on chemicals and wastes by engaging in capacity-building and catalysing the transfer of technology for the sound management of chemicals and waste at the national level.
- 13. Availability of, and access to, adequate financial resources are fundamental to ensuring the restoration of our oceans and landscapes from chemical pollution and for the adequate implementation of the chemicals and wastes agenda within the framework of the Sustainable Development Goals.

On opportunities for reducing waste and pollution while enabling economic and social prosperity

- 14. Although there has been much progress, further efforts through the Basel, Rotterdam and Stockholm conventions are needed to achieve the sound management of chemicals throughout their life cycles and to prevent or minimize significant adverse effects of hazardous wastes on human health and the environment.
- 15. Commitment to, and the conscientious implementation of, the chemicals and wastes conventions contributes to the achievement of the environmentally sound management of chemicals and the reduction of illegal traffic in waste and cross-border pollution, thus facilitating economic and social prosperity.
- 16. Raising awareness of the interlinkages between the Basel, Rotterdam and Stockholm conventions and issues such as air pollution, plastic pollution and marine litter increases the visibility of chemicals and wastes issues in a consistent manner to stakeholders, the media and schools, thereby enhancing the conventions' contributions to the achievement of the Sustainable Development Goals and the protection of human health and the environment.
- 17. Adequate technology transfer is essential to address sustainable development in fields such as agriculture, recycling, household and medical waste management, as are training and capacity-building in the management of chemicals and waste throughout their life cycles. Legislation and control techniques should be in place in all sectors; currently there is limited enforcement even where relevant regulations exist.
- 18. Lack of financial resources, as well as limited institutional capacity, are legitimate concerns that require attention. Further scientific research is also needed in developing countries along with associated funding, including for national coordinating units, laboratories and strengthening research institutes to enhance their ability to develop new technologies for chemicals and wastes management, to establish baseline data, to develop viable alternatives, to promote science-based decisions and to enhance monitoring capacity and database management skills needed to monitor progress in the achievement of the Sustainable Development Goals and related targets.
- 19. Mechanisms such as economic and policy incentives and disincentives should be established to implement the polluter pays principle, taking into consideration the specific situation of each country.
- 20. Formalization of the informal recycling sector is fundamental to the creation of decent jobs and the reduction of legal and occupational risks and environmental impacts. There is a large potential for recycling to have positive economic impacts in developing countries. Related activities must be facilitated by strong regulatory frameworks and technical expertise to ensure that wastes destined for use as resources do not have an adverse impact on human health and the environment.
- 21. Concepts such as the circular economy and the green economy provide opportunities for developing countries to reduce waste and pollution while enabling economic and social prosperity; they do, however, require behavioural and cultural adaptations.
- 22. Industry should be encouraged to develop chemicals and products based upon green and sustainable chemistry principles taking into account the precautionary principle, in particular in the case where persistence, bioaccumulation and long-range transport are of concern, in order to prevent further damage to human health and the environment.

SC

UNEP/POPS/POPRC.13/7

Distr.: General 7 December 2017

Original: English



Persistent Organic Pollutants Review Committee Thirteenth meeting Rome, 17–20 October 2017

Report of the Persistent Organic Pollutants Review Committee on the work of its thirteenth meeting

I. Opening of the meeting

- 1. The thirteenth meeting of the Persistent Organic Pollutants Review Committee was held at the headquarters of the Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, from 17 to 20 October 2017. The Chair of the Committee, Ms. Estefania Moreira (Brazil), was unable to attend the meeting and, in accordance with rule 24 of the rules of procedure of the Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants, which apply mutatis mutandis, if the Chair is temporarily absent from a meeting or any part thereof, she or he shall designate the Vice-Chair to act as Chair. However, Mr. Zaigham Abbas (Pakistan), who had previously been elected by the Committee as its Vice-Chair and who would have chaired the meeting in the absence of Ms. Moreira, had been replaced by his Government as a member of the Committee. Consequently, the Committee decided to elect Ms. Maria Delvin (Sweden) as the new Vice-Chair. In accordance with the terms of reference of the Committee set out in decision SC-1/7 and the rules of procedure, Ms. Delvin would serve as Chair of the current meeting in the absence of Ms. Moreira. The Committee also agreed that Mr. Agus Haryono (Indonesia) would act as Rapporteur for the meeting.
- 2. The Chair declared the meeting open at 9.30 a.m. on Tuesday, 17 October 2017. Welcoming the members of the Committee and observers, she invited Mr. Carlos Martín-Novella, Deputy Executive Secretary of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention, to deliver opening remarks.
- 3. In his remarks, Mr. Martín-Novella expressed appreciation to the Committee members and stakeholders for their scientific and technical contributions to the Committee's work, which was key not only to ensuring informed decision-making by the Conference of the Parties to the Stockholm Convention but also to informing the other multilateral environmental agreements in the field of chemicals and waste management, and which would also provide inputs for the global high-level political commitment on pollution to be negotiated at the third session of the United Nations Environment Assembly, to be held in Nairobi from 4 to 6 December 2017, where the sound management of chemicals and wastes constituted one of the six sub-themes of the session's overarching vision of a "pollution-free planet".
- 4. The Basel, Rotterdam and Stockholm conventions, he said, were successful examples of the commitment of the global community to the sound management of chemicals and wastes, contributing to the achievement of the Sustainable Development Goals. The progress achieved under those conventions over the years had demonstrated that the science-based approach was working well and should be strengthened. With regard to the Stockholm Convention, in particular, the Conference of the Parties had, at its eighth meeting, noted the success reflected in the results of the first effectiveness

evaluation of the Convention of a listing process that had thus far seen the addition of 16 new chemicals to the list of persistent organic pollutants initially to be eliminated or restricted under the Convention at the time of its entry into force.

- 5. Mr. Martín-Novella recalled that the effectiveness evaluation committee had, at the eighth meeting of the Conference of the Parties, recommended that Parties and observers provide adequate and timely information to the Secretariat for the use of the Committee to support it in the development of relevant recommendations to the Conference of the Parties. A careful review of the relevant information at the current meeting and in the following intersessional period would provide the Conference of the Parties with a solid basis for decision-making at its ninth meeting.
- 6. Welcoming the newly appointed experts who were participating in the current meeting as observers, and expressing gratitude to the European Union and the Government of Sweden for the financial support that had made it possible for them to attend, he expressed confidence that the Committee's transparent, inclusive, balanced, precautionary and science-based approach would ensure a fruitful outcome to its deliberations over the coming days.

II. Organizational matters

A. Adoption of the agenda

- 7. The Committee adopted the agenda set out below on the basis of the provisional agenda (UNEP/POPS/POPRC.13/1):
 - 1. Opening of the meeting.
 - 2. Organizational matters:
 - (a) Adoption of the agenda;
 - (b) Organization of work.
 - 3. Rotation of the membership.
 - Review of the outcomes of the eighth meeting of the Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants relevant to the work of the Committee.
 - 5. Technical work:
 - (a) Consideration of draft risk management evaluations:
 - (i) Dicofol;
 - (ii) Pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds;
 - (b) Consideration of a proposal for the inclusion of perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds in Annexes A, B and/or C to the Convention;
 - (c) Process for the evaluation of perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride pursuant to paragraphs 5 and 6 of part III of Annex B to the Stockholm Convention.
 - 6. Report on activities for effective participation in the work of the Committee.
 - 7. Workplan for the intersessional period between the thirteenth and fourteenth meetings of the Committee.
 - 8. Venue and date of the fourteenth meeting of the Committee.
 - 9. Other matters.
 - 10. Adoption of the report.
 - 11. Closure of the meeting
- 8. In adopting its agenda the Committee agreed to discuss under item 9, other matters, suggestions on improving the ways of presenting the information in the risk profile and risk management evaluation documents to meet the needs of the Conference of the Parties while ensuring conformity with document length and translation requirements.

B. Organization of work

9. The Committee agreed to conduct the meeting in accordance with the scenario note prepared by the Chair (UNEP/POPS/POPRC.13/INF/1) and the proposed schedule set out in document UNEP/POPS/POPRC.13/INF/2, subject to adjustment as necessary. The Committee also agreed to conduct its work in plenary session and to establish contact, drafting and friends of the chair groups as necessary, with no more than two such groups working at the same time. In considering the matters on its agenda the Committee had before it the documents listed in the annotations to the agenda (UNEP/POPS/POPRC.13/I/Add.1) and the list of pre-session documents by agenda item (UNEP/POPS/POPRC.13/INF/12).

C. Attendance

- 10. The meeting was attended by the following 27 Committee members: Mr. Jack Holland (Australia), Ms. Ingrid Hauzenberger (Austria), Ms. Tamara Kukharchyk (Belarus), Ms. Michelle Kivi (Canada), Mr. Jianxin Hu (China), Mr. Pavel Čupr (Czechia), Ms. Consuelo Meneses (Ecuador), Mr. Hubert Binga (Gabon), Mr. Agus Haryono (Indonesia), Mr. Seyed Jamaleddin Shahtaheri (Islamic Republic of Iran), Ms. Helen Jacobs (Jamaica), Mr. Mineo Takatsuki (Japan), Ms. Caroline Wamai (Kenya), Ms. Mantoa Sekota (Lesotho), Ms. Katinka van der Jagt (Luxembourg), Mr. Sidi Ould Aloueimine (Mauritania), Mr. Rameshwar Adhikari (Nepal), Mr. Martien Janssen (Netherlands), Ms. Anna Graczyk (Poland), Mr. Marcus Richards (Saint Vincent and the Grenadines), Mr. Ousmane Sow (Senegal), Mr. Jayakody Sumith (Sri Lanka), Ms. Thabile Ndlovu (Swaziland), Ms. Maria Delvin (Sweden), Mr. Andreas Buser (Switzerland), Mr. Youssef Zidi (Tunisia) and Mr. Armando Diaz Cortés (Bolivarian Republic of Venezuela).
- 11. The following States and regional economic integration organizations were represented as observers: Brazil, Canada, China, Costa Rica, Croatia, Denmark, European Union, Finland, France, Germany, Ghana, India, Indonesia, Islamic Republic of Iran, Japan, Jordan, Kenya, Morocco, Netherlands, New Zealand, Norway, Peru, Poland, Romania, Russian Federation, Serbia, Slovakia, South Africa, Suriname, Sweden, Switzerland, Togo, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Yemen.
- 12. Non-governmental organizations were also represented as observers. The names of those organizations are included in the list of participants (UNEP/POPS/POPRC.13/INF/13).

III. Rotation of the membership

- 13. Introducing the item, the representative of the Secretariat drew attention to the information provided in document UNEP/POPS/POPRC.13/INF/3/Rev.1 on the newly appointed members of the Persistent Organic Pollutants Review Committee and forthcoming rotation of the membership in May 2018. The Conference of the Parties, by its decision SC-8/9, had appointed the 14 experts who had been designated by Parties to serve as members of the Committee with terms of office from 5 May 2016 to 4 May 2020, together with 17 new experts to serve with terms of office from 5 May 2018 to 4 May 2022. After the eighth meeting of the Conference of the Parties, the Government of Pakistan had informed the Secretariat of the replacement of the expert that it had designated to serve as a member of the Committee. She reported that the curriculum vitae of the replacement expert of Pakistan, a summary on the rotation of the membership and the contact information of the current and newly appointed members were set out in the document before the Committee. Finally, given that the term of office of the current Vice-Chair of the Committee, Ms. Delvin, was due to end on 4 May 2018, the Committee would have to elect a new Vice-Chair with a term of office to begin on 5 May 2018, taking into account geographical and gender balance among the officers.
- 14. Subsequently, following a proposal by the Chair, the Committee elected Ms. Svitlana Sukhorebra (Ukraine) to serve as Vice-Chair of the Committee, with a term of office beginning on 5 May 2018. Ms. Sukhorebra would also serve as Rapporteur.

IV. Review of the outcomes of the eighth meeting of the Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants relevant to the work of the Committee

15. Introducing the item, the representative of the Secretariat summarized the information provided in document UNEP/POPS/POPRC.13/INF/4, on the outcomes of the eighth meeting of the Conference of the Parties to the Stockholm Convention relevant to the Committee's work, drawing attention in particular to decisions SC-8/10, SC-8/11 and SC-8/12, on the listing of, respectively,

decabromodiphenyl ether (commercial mixture, c-decaBDE) in Annex A to the Convention with specific exemptions, short-chain chlorinated paraffins in Annex A with specific exemptions, and hexachlorobutadiene in Annex C; decisions SC-8/13 and SC-8/14, on the review of information related to specific exemptions for, respectively, decabromodiphenyl ether and short-chain chlorinated paraffins; decision SC-8/5 on perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOSF); and decision SC-8/4 on the evaluation and review of brominated diphenyl ethers pursuant to paragraph 2 of parts IV and V of Annex A to the Stockholm Convention.

- 16. In addition, the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions had adopted substantially identical decisions entitled "From science to action" (decisions BC-13/22, RC-8/15 and SC-8/25), the aim of which was to enhance the science-policy interface for decision-making and the implementation of the three conventions. A side event on the topic would take place at the current meeting.
- 17. The Committee took note of the information provided.

V. Technical work

A. Consideration of draft risk management evaluations

1. Dicofol

- 18. In considering the sub-item, the Committee had before it a note by the Secretariat on the draft risk management evaluation on dicofol (UNEP/POPS/POPRC.13/2) and a compilation of comments and responses relating to the draft risk management evaluation on dicofol (UNEP/POPS/POPRC.13/INF/5).
- 19. Introducing the sub-item, the representative of the Secretariat recalled that the Committee, by its decision POPRC-12/1, had adopted the risk profile on dicofol; invited Parties and observers to submit information specified in Annex F to the Convention; and established an intersessional working group to prepare a draft risk management evaluation that would include an analysis of possible control measures for dicofol.
- 20. Mr. Richards, chair of the intersessional working group, gave a presentation on the draft risk management evaluation.
- 21. In the ensuing discussion, general appreciation was expressed for the quality of the draft risk management evaluation, with several members highlighting a number of points that they considered warranted further consideration in a contact group.
- 22. One member said, with regard to the control measures, that the draft risk management evaluation for dicofol should make clear that maximum residue limits of the chemical in food were compliance levels for allowable pesticides currently in use and, hence, were not set in the same context as environmental quality standards and this distinction was not clear. Maximum residue limits should not be considered as a control level for a persistent organic pollutant or banned chemical and that should be reflected in the document.
- 23. Another member said that the evaluation appeared to overstate the complexity of the dicofol supply chain in comparison to other chemicals, such as pentadecafluorooctanoic acid, as only a few producers were still producing dicofol and, as a pesticide, its distribution and use were better regulated by most countries through existing pesticide regulatory mechanisms. On the other hand, he added, the Committee's tasks went well beyond simply recommending prohibition.
- 24. One member, referring to the information on dicofol production processes set out in paragraphs 49 and 50 of the draft risk management evaluation, and supported by another member, drew attention to the findings of additional research that showed the dicofol production processes using a closed system also to have led to the release of polychlorinated dibenzo-*p*-dioxins and dibenzofurans (PCDD/PCDF).
- 25. One member, pointing out that traces of dicofol used in wine production in a number of countries until the late 1900s had been found in the soil in those countries, and expressing concern that the chemical could still be purchased via the Internet, expressed support for its listing in Annex A to the Convention without specific exemptions. Another member said that traces of dicofol had been detected in other pesticides and that attention should be paid to control measures for the import, uses in other sectors and transboundary movement of products containing dicofol.

- 26. The Committee established a contact group, chaired by Mr. Richards, to further discuss and revise the draft risk management evaluation for dicofol and to prepare a draft decision based on an initial text to be prepared by the Secretariat, taking into account the discussions in plenary.
- 27. Subsequently, the Committee adopted decision POPRC-13/1, by which it adopted the risk management evaluation and decided to recommend to the Conference of the Parties that it consider listing dicofol in Annex A to the Convention. The decision is set out in annex I to the present report and the risk management evaluation is set out in document UNEP/POPS/POPRC.13/7/Add.1.

2. Pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds

- 28. In considering the sub-item, the Committee had before it a draft risk management evaluation for pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds (UNEP/POPS/POPRC.13/3), as well as the related supporting information (UNEP/POPS/POPRC.13/INF/6), non-exhaustive lists of substances covered and not covered by the draft risk management evaluation (UNEP/POPS/POPRC.13/INF/6/Add.1) and comments and responses relating to the draft risk management evaluation (UNEP/POPS/POPRC.13/INF/7).
- 29. Ms. van der Jagt, drafter of the intersessional working group on PFOA, its salts and PFOA-related compounds, gave a presentation on the draft risk management evaluation.
- 30. In the ensuing discussion, many members expressed general support for the draft risk management evaluation, with a number also noting opportunities to clarify or improve particular elements of it. Several underscored the overall complexity of the topic and the difficulties inherent in preparing such an evaluation.
- 31. Many members spoke about the high number of exemptions proposed in the document, including one who noted that some were not time-limited. A number said that alternatives appeared to be available for some of the applications that were proposed as exemptions, such as fire-fighting foams and textiles. One member suggested focusing on the presence of alternatives for many activities and their absence for specific activities. Several members highlighted the need to examine the feasibility and availability of alternatives, including one who said that differences between developed and developing countries in terms of the availability and use of alternatives should be taken into consideration. One member, noting the tendency to replace halogenated chemicals with other halogenated alternatives, urged the Committee to consider non-halogenated alternatives.
- 32. Several members noted that the information provided on unintentional production was limited, pointing out that only one source incineration was given and that more information would be needed to support a recommendation to list in Annex C to the Convention. One member noted that the incineration processes, if best available techniques were applied in accordance with Article 5 of the Convention, would not be a source of unintentional releases, while another noted that incinerators in developing countries often did not apply best available techniques.
- 33. A number of members flagged the presence of products containing PFOA in waste streams as a concern, particularly given the difficulty of identifying such products. One also highlighted the issue of transportation of intermediates to jurisdictions with few or no regulations. One member, noting that the documents indicated that sulfluramid could be considered a PFOA-related compound, said that it should be discussed further and proposed to add some information to the risk management evaluation document.
- 34. Ms. van der Jagt subsequently acknowledged the comments of members as well as those made by a number of representatives of observers, expressing the hope that their points could be discussed further in a contact group. Responding to a concern raised by an observer, she confirmed that a number of measures were in place to avoid any conflicts of interest. She highlighted that the Committee members were responsible for the work done in their capacity as members. She also welcomed a comment regarding the advisability of avoiding Annex B listings without time limits based on experience gained with PFOS, its salts and PFOSF.
- 35. The Committee agreed to establish a contact group, co-chaired by Mr. Binga and Mr. Adhikari, to revise the draft risk management evaluation and to prepare a draft decision on the listing of PFOA, its salts and PFOA-related compounds in the annexes to the Convention, taking into account the discussions in plenary.
- 36. Subsequently, one member, noting the lack of data on a number of points and the fact that some applications had yet to be discussed, said that it was more important to him to take the time to address those issues than to reach a final decision on a recommendation at the current meeting.

As such, he suggested that such a final decision be deferred until the fourteenth meeting of the Committee.

- 37. One member, supported by another, expressed particular appreciation for the high quality and truly independent nature of the work undertaken in preparing the documents, without which it would not have been possible to produce such a complex dossier in so short a period of time.
- 38. Following further work by the contact group facilitated by Ms. Delvin, the Committee adopted decision POPRC-13/2, by which it adopted the risk management evaluation, decided to recommend to the Conference of the Parties that it consider listing PFOA, its salts and PFOA-related compounds in Annex A or B to the Convention with specific exemptions, and invited Parties and observers to provide additional information, including on socioeconomic aspects, that would assist the Committee in the possible defining of specific exemptions for the production and use of the chemicals in a number of specified applications; in the further evaluation of the chemical's unintentional formation and release; and in the further evaluation of the chemical identity of the PFOA-related compounds. In the decision, the Committee decided, among other things, to establish an intersessional working group to assess the additional information provided with a view to strengthening the recommendation on the listing of the chemical for consideration by the Committee at its fourteenth meeting. The working group would be chaired by Mr. Adhikari with Ms. van der Jagt serving as the drafter.
- 39. The decision is set out in annex I to the present report and the risk management evaluation is set out in document UNEP/POPS/POPRC.13/7/Add.2.

B. Consideration of a proposal for the inclusion of perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds in Annexes A, B and/or C to the Convention

- 40. Introducing the sub-item, the Committee had before it notes by the Secretariat setting out a proposal by Norway to list perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds in Annexes A, B and/or C to the Convention (UNEP/POPS/POPRC.13/4) and the Secretariat's verification of whether the proposal contained the information specified in Annex D to the Convention (UNEP/POPS/POPRC.13/INF/8).
- 41. Ms. Trine Celius, a representative of Norway, introduced the proposal.
- 42. In the ensuing discussion, many expressed support for the proposal to list PFHxS, its salts and PFHxS-related compounds in Annexes A, B and/or C to the Convention, with one member saying that sufficient information had been provided to raise concern about the adverse impacts of the chemical on human health, including as a result of liver toxicity and endocrine disruption. Supported by several other members, that member also endorsed the conclusion that PFHxS appeared to meet the Annex D screening criteria pertaining to bioaccumulation in the light of the toxicokinetic data and the significant length of reported half-lives in a number of species, suggesting that a more flexible approach to bioaccumulation should be applied. Another member questioned the conclusion reached on toxicity.
- 43. One member requested clarification of the read-across approach used in preparing the proposal and another suggested adding a paragraph setting out the justification of using the approach and explaining why PFOS and other perfluoroalkyl substances had been considered suitable surrogates for PFHxS.
- 44. One member, supported by several others, said that more detailed information was needed on the PFHxS-related compounds, with one of the other members suggesting that a list be provided to assist in information-gathering and to support the work on the scope of the chemical identity. Another, supported by a third, drew attention to a discrepancy in the number of related chemicals cited in the document and in the presentation, adding that additional information on the matter would avoid any misunderstandings when it came to preparing a draft risk profile.
- 45. The representative of Norway, responding to the latter point, said that her presentation had used information that had emerged after the proposal had been submitted to the Committee and that, if the original source material had since been updated, it would be useful to incorporate the changes. As to the lack of information concerning uses of the chemical, she said that they had not constituted a primary focus of the drafters preparing the nomination proposal and that more information on the matter would be provided if and when a draft risk profile was prepared, such as the findings of a project currently under way in Norway that had found high levels of the chemical in processes such as furniture surface treatment, wastewater treatment and hard metal plating. On the read-across approach, she said that the approach had been used relatively sparingly in preparing the proposal and that the Annex D screening criteria would have been considered as having been met without it.

- 46. The Committee established a contact group, chaired by Mr. Holland, to further discuss and revise the proposal to list PFHxS, its salts and PFHxS-related compounds in Annexes A, B and/or C to the Convention and to prepare a draft decision based on an initial text to be prepared by the Secretariat, taking into account the discussions in plenary.
- 47. Subsequently, the Committee adopted decision POPRC-13/3, by which it decided that the proposal to list perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds fulfilled the Annex D screening criteria and that an intersessional working group be established to review the proposal further and prepare a draft risk profile pertaining to the chemical. Mr. Holland would chair the working group and Ms. Delvin would serve as the drafter until the end of their respective terms of office on 4 May 2018, with Mr. Peter Dawson (New Zealand) assuming the chair and Ms. Rikke Donchil Holmberg (Denmark) the role of drafter from 5 May 2018. The decision is set out in annex I to the present report.

C. Process for the evaluation of perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride pursuant to paragraphs 5 and 6 of part III of Annex B to the Stockholm Convention

- 48. In considering the sub-item, the Committee had before it a note by the Secretariat on the process for the evaluation of perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOSF) pursuant to paragraphs 5 and 6 of part III of Annex B to the Convention (UNEP/POPS/POPRC.13/5). The evaluation was to determine the continued need for PFOS, its salts and PFOSF for the acceptable purposes and specific exemptions listed in Annex B. The process for the evaluation was set out in the annex to decision SC-6/4, as amended by decision SC-7/5. According to that process, two reports were to be submitted to the Conference of the Parties at its ninth meeting in 2019: one by the Committee on the assessment of alternatives to PFOS, its salts and PFOSF, and the other by the Secretariat on the evaluation of PFOS, its salts and PFOSF. The Committee was therefore required to develop terms of reference for the assessment of alternatives to PFOS, its salts and PFOSF at the current meeting, and to complete the report on the assessment and provide comments on the Secretariat's draft report on the evaluation of PFOS, its salts and PFOSF at its fourteenth meeting, in 2018. Draft terms of reference for the assessment of alternatives were set out in document UNEP/POPS/POPRC.13/INF/9.
- 49. After introducing the documents, the representative of the Secretariat made a presentation on the various steps of the evaluation process, for purposes of clarity. Following her presentation, one member welcomed the participation in the process, on a more formal basis, of experts on best available techniques and best environmental practices. She also recalled that during the previous assessment of the alternatives to PFOS, its salts and PFOSF, the Committee's work had been limited by business confidentiality considerations, and said that success stories from industry would be useful.
- 50. The Committee then adopted decision POPRC-13/4, by which it decided to establish an intersessional working group, chaired by Mr. Janssen, to undertake the activities specified in the process set out in the annex to decision SC-6/4 in accordance with the terms of reference set out in the annex to document UNEP/POPS/POPRC.13/INF/9. The decision is set out in annex I to the present report.

VI. Report on activities for effective participation in the work of the Committee

- 51. The representative of the Secretariat introduced a report on activities for effective participation in the work of the Committee (UNEP/POPS/POPRC.13/INF/10/Rev.1), outlining the capacity-building and training activities carried out and planned since the previous meeting of the Committee. In particular, she informed the members that the Secretariat was planning a regional workshop aimed at enhancing the effective participation of Parties and observers in the work of the Committee and the Chemical Review Committee of the Rotterdam Convention, with the financial support of the European Union and the Governments of Germany and Norway.
- 52. Subsequently, the Chair, reacting to a comment by the representative of an observer calling for the greater participation of Committee members in the meetings of the Conference of the Parties to the Stockholm Convention in order to provide clarifications on the work of the Committee, recalled that at the eighth meeting of the Conference of the Parties questions had indeed been addressed to Committee members.
- 53. The Committee took note of the information presented.

VII. Workplan for the intersessional period between the thirteenth and fourteenth meetings of the Committee

- 54. In its consideration of the item, the Committee had before it a note by the Secretariat on a draft workplan for the intersessional period between the thirteenth and fourteenth meetings of the Committee (UNEP/POPS/POPRC.13/6). The representative of the Secretariat introduced the item, outlining the information in the note, following which the Committee adopted the workplan without amendment.
- 55. In accordance with paragraph 6 of Article 8 of the Convention and paragraph 29 of the annex to decision SC-1/7, the Committee established three intersessional working groups to carry forward the work necessary to implement its decisions.
- 56. The composition of the intersessional working groups is set out in annex II to the present report, while the workplan is set out in annex III.

VIII. Venue and date of the fourteenth meeting of the Committee

57. The Committee decided that its fourteenth meeting would be held at the headquarters of the Food and Agriculture Organization of the United Nations in Rome from 17 to 21 September 2018, back to back with the fourteenth meeting of the Chemical Review Committee of the Rotterdam Convention. It was further understood that the Chair, in consultation with the Vice-Chair and the Secretariat, might adjust the meeting arrangements to accord with the work requirements.

IX. Other matters

- 58. In adopting its agenda, the Committee agreed to discuss suggestions to improve the ways of presenting the information in the risk profile and risk management evaluation documents to meet the needs of the Conference of the Parties while ensuring conformity with document length and translation requirements. Subsequently, in the interest of time, the Committee agreed that the discussion on the matter be deferred to its fourteenth meeting.
- 59. No other matters were discussed.

X. Adoption of the report

60. The Committee adopted the present report on the basis of the draft report (UNEP/POPS/POPRC.13/L.1), as orally amended, on the understanding that Mr. Haryono, serving as the Rapporteur and working in consultation with the Secretariat, would be entrusted with its finalization.

XI. Closure of the meeting

61. Following the customary exchange of courtesies, the meeting was declared closed at 10 p.m. on Friday, 20 October 2017.

Annex I

Decisions adopted by the Persistent Organic Pollutants Review Committee at its thirteenth meeting

POPRC-13/1: Dicofol

POPRC-13/2: Pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its

salts and PFOA-related compounds

POPRC-13/3: Perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and

PFHxS-related compounds

POPRC-13/4: Process for the evaluation of perfluorooctane sulfonic acid, its salts and

perfluorooctane sulfonyl fluoride pursuant to paragraphs 5 and 6 of part III of Annex

B to the Stockholm Convention

POPRC-13/1: Dicofol

The Persistent Organic Pollutants Review Committee,

Having concluded in its decision POPRC-10/3 that dicofol fulfils the criteria set out in Annex D to the Stockholm Convention,

Having evaluated the risk profile for dicofol adopted by the Committee at its twelfth meeting ¹ in accordance with paragraph 6 of Article 8 of the Convention,

Having decided in its decision POPRC-12/1 that dicofol is likely, as a result of its long-range environmental transport, to lead to significant adverse human health and environmental effects such that global action is warranted,

Having completed the risk management evaluation for dicofol in accordance with paragraph 7 (a) of Article 8 of the Stockholm Convention,

- 1. Adopts the risk management evaluation for dicofol;²
- 2. *Decides*, in accordance with paragraph 9 of Article 8 of the Convention, to recommend to the Conference of the Parties that it consider listing dicofol in Annex A to the Convention without specific exemptions.

POPRC-13/2: Pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds

The Persistent Organic Pollutants Review Committee,

Having concluded in its decision POPRC-11/4 that pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid) meets the criteria set out in Annex D to the Stockholm Convention,

Having evaluated the risk profile for pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds adopted by the Committee at its twelfth meeting in accordance with paragraph 6 of Article 8 of the Convention,

Having decided in its decision POPRC-12/2 that pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds are likely, as a result of their long-range environmental transport, to lead to significant adverse human health and environmental effects such that global action is warranted,

Having completed the risk management evaluation for pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds in accordance with paragraph 7 (a) of Article 8 of the Stockholm Convention,

- 1. *Adopts* the risk management evaluation³ for pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds;⁴
- 2. Decides, in accordance with paragraph 9 of Article 8 of the Convention, to recommend to the Conference of the Parties that it consider listing pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds in Annex A or B to the Convention with specific exemptions for the following:
- (a) For five years from the date of entry into force of the amendment in accordance with Article 4:
 - (i) Manufacture of semiconductors or related electronic devices:
 - a. Equipment or fabrication plant-related infrastructure containing fluoropolymers and/or fluoroelastomers with PFOA residues;

¹ UNEP/POPS/POPRC.12/11/Add.1.

² UNEP/POPS/POPRC.13/7/Add.1.

³ UNEP/POPS/POPRC.13/7/Add.2.

⁴ UNEP/POPS/POPRC.13/7/Add.2, para 21.

- b. Legacy equipment or legacy fabrication plant-related infrastructure: maintenance:
- c. Photo-lithography or etch processes;
- (ii) Photographic coatings applied to films;
- (iii) Textiles for oil and water repellency for the protection of workers from dangerous liquids that comprise risks to their health and safety;
- (b) For ten years from the date of entry into force of the amendment for manufacture of semiconductors or related electronic devices: refurbishment parts containing fluoropolymers and/or fluoroelastomers with PFOA residues for legacy equipment or legacy refurbishment parts;
- (c) For use of perfluorooctane iodide, production of perfluorooctane bromide for the purpose of producing pharmaceutical products with a review of continued need for exemptions. The specific exemption should expire in any case at the latest in 2036;
- 3. *Invites* Parties and observers, including the relevant industries, to provide, by 12 January 2018, information that would assist the possible defining by the Committee of specific exemptions for production and use of PFOA, its salts and PFOA-related compounds in particular in the following applications:
- (a) Membranes intended for use in medical textiles, filtration in water treatment, production processes and effluent treatment: information on the scope of the applications, used amounts, availability of alternatives and socio-economic aspects;
- (b) Transported isolated intermediates in order to enable reprocessing in another site than the production site: information on the quantities used, extent of transport and risks, and use;
- (c) Medical devices: information on specific applications/uses and timelines foreseen as needed for potential related exemptions;
- (d) Implantable medical devices: information on the quantities used, extent of transport and risks, and use;
- (e) Photo imaging sector: information on paper and printing, and information relevant for developing countries;
 - (f) Automotive industry: information on spare parts;
- (g) Fire-fighting foams: information on chemical composition of mixtures and the volumes of pre-installed amount of fire-fighting foam mixtures.

For the applications above, information regarding socio-economic aspects as well as other relevant information is also welcomed:

- 4. Further invites Parties and observers to provide, by 12 January 2018, information that would assist the further evaluation by the Committee of pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds in relation to its unintentional formation and release, in particular from primary aluminium production and from incomplete combustion;
- 5. Further invites Parties and observers to provide, by 12 January 2018, information that would assist the further evaluation by the Committee of the chemical identity of PFOA-related compounds chemical list;
- 6. Requests the Secretariat to prepare a document on note (ii) of part I of Annex A to the Convention and scope of the reference to stockpiles within Article 6 of the Convention and make it available to the Committee for consideration at its fourteenth meeting;
- 7. *Notes* that there is evidence that sulfluramid degrades to PFOA and that sulfluramid is included in the risk profile on PFOS, its salts and PFOSF (UNEP/POPS/POPRC.2/17/Add.5), while the relevant CAS number is not included in Annex B:
- 8. Decides to address how to proceed with sulfluramid because the substance may meet the definition of a PFOA-related substance and sulfluramid does not fall under the definition of perfluorooctane sulfonic acid (CAS No: 1763-23-1), its salts and perfluorooctane sulfonyl fluoride (CAS No: 307-35-7) as set out in decision SC-4/17, within the process for the evaluation of perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride pursuant to paragraphs 5 and 6 of part III of Annex B to the Stockholm Convention for which the Committee agreed on the terms of reference in decision POPRC-13/4;

- 9. *Requests* the Secretariat to compile the information provided in accordance with paragraphs 3, 4 and 5 above and make it available to the Committee;
- 10. *Decides* to establish an intersessional working group to assess the information provided in accordance with paragraphs 3, 4 and 5 above with the intention of strengthening the recommendation on the listing of the chemicals for consideration at its fourteenth meeting.

POPRC-13/3: Perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds

The Persistent Organic Pollutants Review Committee,

Having examined the proposal by Norway to list perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds in Annexes A, B and/or C to the Stockholm Convention on Persistent Organic Pollutants and having applied the screening criteria specified in Annex D to the Convention,

- 1. *Decides*, in accordance with paragraph 4 (a) of Article 8 of the Convention, that it is satisfied that the screening criteria have been fulfilled for perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS) as described in the evaluation contained in the annex to the present decision;
- 2. Also decides, in accordance with paragraph 6 of Article 8 of the Convention and paragraph 29 of decision SC-1/7, to establish an intersessional working group to review the proposal further and to prepare a draft risk profile in accordance with Annex E to the Convention;
- 3. Further decides that issues related to the inclusion of PFHxS salts and PFHxS-related compounds that potentially degrade to PFHxS should be dealt with in developing the draft risk profile;
- 4. *Invites*, in accordance with paragraph 4 (a) of Article 8 of the Convention, Parties and observers to submit to the Secretariat the information specified in Annex E, by 8 December 2017, for the following substances:
 - (a) Perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS);
- (b) Any substance that contains the chemical moiety $C_6F_{13}SO_2$ as one of its structural elements and that potentially degrades to PFHxS;
- 5. Requests the Secretariat, for the purpose of facilitating information collection, to make available to Parties and observers a non-exhaustive list of CAS numbers for PFHxS, its salts and PFHxS-related compounds when the Secretariat invites them to submit information specified in Annex E.

Annex to decision POPRC-13/3

Evaluation of perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds against the criteria of Annex D

A. Background

1. The primary source of information for the preparation of the present evaluation was the proposal submitted by Norway (UNEP/POPS/POPRC.13/4).

B. Evaluation

2. The proposal was evaluated in the light of the requirements of Annex D regarding the identification of the chemical (paragraph 1 (a)) and the screening criteria (paragraph 1 (b)–(e)):

(a) Chemical identity:

(i) Adequate information was provided in the proposal, which relates to PFHxS (CAS No: 355-46-4), its salts and PFHxS-related compounds;

(ii) The chemical structures were provided;

The chemical identity of PFHxS, its salts and PFHxS-related compounds is adequately established. The proposal includes PFHxS-related compounds that may degrade to PFHxS, including any substances that contain the chemical moiety [C₆F₁₃SO₂].

(b) Persistence:

- (i) No environmental half-lives for PFHxS are available;
- (ii) The PFHxS is a member of the per- and polyfluoroalkyl substance (PFAS) group. Due to their strong carbon-fluorine bonds, PFASs are very persistent and resistant to chemical, thermal and biological degradation (Ref. 1). In a field study on photolysis of PFHxS conducted at high altitude in Mt. Mauna and Mt. Tateyama, no significant photolysis was observed for PFHxS following, respectively, 106 and 20.5 days of exposure (Ref. 2).

PFHxS are found in soil, water and a variety of biota in the vicinity of fire-fighting training areas following the historical use of PFHxS-containing foams, showing that it is persistent and does not undergo any abiotic or biotic degradation under normal environmental conditions (Refs. 3, 4). PFHxS persistence is also shown by its frequent detection in biota and the environment, including in the Arctic (Ref. 5). Furthermore, PFHxS was recently identified as very persistent and very bioaccumulative (vPvB) in the European Union (Refs. 6, 7).

There is sufficient evidence that PFHxS meets the criterion on persistence.

(c) Bioaccumulation:

- (i) PFHxS have both hydrophobic and hydrophilic properties and are expected to form multiple layers in an octanol-water mixture, which makes it experimentally difficult to measure the log Kow (Ref. 8). Therefore log Kow may not be relevant for assessing bioaccumulation. PFHxS is also fully ionized in the environment (Ref. 9). Due to high water solubility, the bioconcentration factor (BCF) and bioaccumulation factor (BAF) for PFHxS are below 5000 (Ref. 10). PFHxS binds to proteins in the liver and blood and is expected to be quickly excreted through gill permeation in fish (Ref. 11);
- (ii) and (iii) There is evidence that PFHxS biomagnifies in various food chains, as biomagnification factors (BMFs) from several locations, including in the Arctic, are higher than 1 (Refs. 12, 13, 14, 15). In addition, diet studies in pig report BMFs higher than 1 (Ref. 16);

The half-life of PFHxS in human serum is approximately 8 years and thus the highest half-life ever reported for any PFAS (Ref. 17). For comparison, half-lives of PFOS and PFOA are 5.4 and 3.8 years, respectively. The half-life in pig is reported to be 713 days (Ref. 16) and in monkey is 141 days in male and 87 days in female (Ref. 18);

PFHxS have been found in many species, including in polar cod, glaucous gulls, ringed seals and polar bears in the Arctic (Ref. 5). Recent studies report that PFHxS is the third most abundant PFAS in polar bears at Svalbard (Refs. 19, 20) and that levels of PFHxS are increasing (Ref. 20);

PFHxS have been found in human populations in a number of birth cohorts, where PFHxS was detected at >98% in all five cohorts, and concentrations were highest in Danish women followed by Greenlandic women (Ref. 21). Furthermore, PFHxS, along with PFOS and PFOA, is the most frequently detected PFAS in blood-based samples from the general population (Ref. 22) and present in the umbilical cord blood and breast milk (Refs. 23, 24).

There is sufficient evidence that PFHxS meets the criterion on bioaccumulation.

(d) Potential for long-range environmental transport:

(i) PFHxS is detected at different locations in the Arctic in a variety of environmental matrices and biota, including in air, snow, seawater, freshwater lakes and sediments, fish, seabirds, marine and terrestrial mammals (Refs. 5, 25).

- In the Antarctic, PFHxS has been detected in lichen, in fur seal liver and in penguin faeces (Ref. 5). High levels have been detected in Arctic top predators, in particular in polar bears from Svalbard (Refs. 20, 26);
- (ii) Environmental monitoring shows that PFHxS is globally distributed over long geographical distances to remote areas via ocean currents and possibly also via air, where it is detected in the environment and biota at levels that indicate long-range transport from sources in other global regions. As the ocean acts as a long-term reservoir of PFAS, the input of PFHxS to the Arctic will likely continue over the long term, particularly as the volume of Atlantic water masses transported northwards has increased during the last two decades (Refs. 5, 20). There is also evidence that PFHxS levels in Svalbard polar bears have increased between 4.9 and 5.1 per cent per year for the period 2009–2014 and that the increased levels are probably due to long-range environmental transport (Ref. 20);
- (iii) Llorca et al. (2012) (Ref. 27) predicts that PFHxS, like most other perfluoroalkyl acids, is a "swimmer", i.e., a chemical that is anticipated to undergo long-range environmental transport in water, by using the modelling result from Lohmann et al. (2007) (Ref. 28).

There is sufficient evidence that PFHxS meets the criterion for long-range environmental transport.

(e) Adverse effects:

(i) Epidemiological studies have shown the association between serum levels of PFASs and PFHxS and serum levels of cholesterol, lipoproteins, triglycerides and free fatty acids (Refs. 29, 30);

Endocrine-disrupting effects on the thyroid hormone pathway have been shown for PFHxS both from *in vitro* studies (Refs. 31, 32) and epidemiological studies (Refs. 33, 34, 35, 36, 37, 38);

Epidemiological studies indicate the potential for immunotoxic effects caused by PFHxS exposure in children. An inverse association was observed between maternal PFHxS serum levels and the level of anti-rubella antibodies and number of episodes of gastroenteritis at age 3 (Ref. 39). Grandjean et al. (2012) (Ref. 40) observed odds ratios of 1.78 (1.08; 2.93) (95 per cent CIs) for inadequate antibody concentrations at age 7 for tetanus vaccine. Furthermore, increased incidence of asthma has been indicated in children exposed to PFHxS (Refs. 41, 42). In an *in vitro* study, a range of related PFASs (PFBS, PFOS, perfluorooctane sulfonamide (PFOSA), PFOA, perfluorodecanoic acid (PFDA) and 8:2 fluorotelomer alcohol (FTOH)) showed immunosuppressive potential (Ref. 43), suggesting this might occur for PFHxS through the same mechanisms as observed for PFBS and PFOS;

(ii) Experimental studies in rodents show adverse effects to the liver (Ref. 44), as well as effects on nuclear receptors that regulate metabolism, effects on serum levels of cholesterol, lipoproteins, triglycerides and free fatty acids in rodent studies (Ref. 44, 45, 46). Effects on the liver included a dose-dependent increase in hepatocellular hypertrophy and liver weight (56 per cent increase in male rats following 42 days of exposure at 10 mg/kg/d (Ref. 44)). In addition, liver steatosis was observed in both wild type and peroxisome proliferator-activated receptor (PPAR)-alpha null mice after 7 days of oral exposure to 10 mg/kg/d PFHxS, whereas exposure to 50 mg/kg/d of the PPAR-alpha agonist WY-14643 did not induce this effect in the PPAR-alpha null mice indicating that the mechanism of steatosis for PFHxS is at least partly independent of PPAR-alpha (Ref. 45);

Thyroid organ toxicity (hypertrophy/hyperplasia) was observed in male rats exposed to PFHxS at 10 mg/kg per day for 42 days (Ref. 44). PFHxS has been shown to influence thyroid hormone pathways and genes related to neuronal development in birds at 8.9 to 38,000 ng/g (Refs. 47, 48, 49). Negative correlations between serum PFHxS and thyroid hormones T3 has been observed in Arctic birds (Ref. 50) and recent studies on polar bear from Svalbard

suggested a possible alteration of the thyroid hormone homeostasis by PFASs (including PFHxS) in polar bears (Ref. 51);

Neurotoxic and neurodevelopmental effects have been observed in controlled laboratory experiments in mice and rats (Refs. 52, 53, 54). Furthermore, field studies on polar bears from East Greenland indicating associations between levels of PFASs, including PFHxS, in the brain and alterations of neurochemical markers and brain steroid hormones (Refs. 55, 56);

Other effects observed include delayed development in northern leopard frog (*Rana pipiens*) tadpoles exposed to 10 ug/L PFHxS for 40 days. This is the first study to show sublethal effects of PFHxS on amphibians at environmentally relevant levels (Ref. 57). Endocrine-disrupting effects were observed as altered brain estrogen- and androgen receptor levels in frog tadpoles after exposure to both PFOS and PFBS at 0.1 ug/L (Ref. 58). One could expect similar effects from exposure to PFHxS.

There is sufficient evidence that PFHxS meets the criterion on adverse effects.

C. Conclusion

3. The Committee concludes that PFHxS meets the screening criteria specified in Annex D.

References

- 1. Kissa, E (2001). Fluorinated Surfactants and Repellents. Marcel Dekker, Inc., New York.
- 2. Taniyasu S, Yamashita N, Yamazaki E, Petrick G, Kannan K (2013). The environmental photolysis of perfluorooctanesulfonate, perfluorooctanoate, and related fluorochemicals. Chemosphere. 90(5): 1686-92.
- 3. Bräunig J, Baduel C, Heffernan A, Rotander A, Donaldson E, Mueller JF (2017). Fateand redistribution of perfluoroalkyl acids through AFFF-impacted groundwater. SciTotal Environ. 596-597:360-368.
- 4. Filipovic M, Woldegiorgis A, Norström K, Bibi M, Lindberg M, Österås AH (2015). Historical usage of aqueous film forming foam: a case study of the widespread distribution of perfluoroalkyl acids from a military airport to groundwater, lakes, soils and fish. Chemosphere.129:39-45.
- 5. UNEP/POPS/POPRC.13/4. 2017. Proposal to list perfluorohexanesulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds in Annexes A, B and/or C to the Stockholm Convention on Persistent Organic Pollutants.
- 6. ECHA (2017a). Member state committee support document for the identification of perfluorohexane-1-sulphonic acid and its salts as substances of very high concern because of their vPvB (Article 57 E) properties. (https://echa.europa.eu/documents/10162/40a82ea7-dcd2-5e6f-9bff-6504c7a226c5). Last accessed 04 October 2017.
- 7. ECHA (2017b). Agreement of the member state committee on the identification of perfluorohexane-1-sulfonic acid and its salts as substances of very high concern. According to Articles 57 and 59 of Regulation (EC) 1907/20061. Adopted on 15 June 2017. (https://echa.europa.eu/documents/10162/fdc986a0-7479-245a-b64a-7724d1ee760c)
- 8. Conder JM, Hoke RA, De Wolf W, Russell MH, Buck RC (2008). Are PFCAs bioaccumulative? A critical review and comparison with regulatory criteria and persistent lipophilic compounds. Environ Sci Technol. 42(4):995-1003. Review.
- 9. Vierke L, Berger U, Cousins IT (2013). Estimation of the Acid Dissociation Constant of Perfluoroalkyl Carboxylic Acids through an Experimental Investigation of their Water-to-Air Transport. Environ. Sci. Technol. 47: 11032–11039
- 10. Yeung LW, Mabury SA (2013). Bioconcentration of aqueous film-forming foam (AFFF) in juvenile rainbow trout (Oncorhyncus mykiss). Environ Sci Technol. 47(21):12505-13.
- 11. Goeritz I, Falk S, Stahl T, Schäfers C, Schlechtriem C (2013). Biomagnification and tissue distribution of perfluoroalkyl substances (PFASs) in market-size rainbow trout (Oncorhynchus mykiss). Environ Toxicol Chem. 32(9):2078-88.
- 12. Houde M, Bujas TA, Small J, Wells RS, Fair PA, Bossart GD, Solomon KR, Muir DC (2006). Biomagnification of perfluoroalkyl compounds in the bottlenose dolphin (Tursiops truncatus) food web. Environ Sci Technol. 40(13):4138-44.
- 13. Haukås M, Berger U, Hop H, Gulliksen B, Gabrielsen GW (2007). Bioaccumulation of per- and polyfluorinated alkyl substances (PFAS) in selected species from the Barents Sea food web. Environ Pollut. 148(1):360-71.
- 14. Butt CM, Mabury SA, Kwan M, Wang X, Muir DC (2008). Spatial trends of perfluoroalkyl compounds in ringed seals (Phoca hispida) from the Canadian Arctic. Environ Toxicol Chem. 27(3):542-53.
- 15. Rigét F, Bossi R, Sonne C, Vorkamp K, Dietz R (2013). Trends of perfluorochemicals in Greenland ringed seals and polar bears: indications of shifts to decreasing trends. Chemosphere 93(8):1607-14.
- 16. Numata J, Kowalczyk J, Adolphs J, Ehlers S, Schafft H, Fuerst P, Müller-Graf C, Lahrssen-Wiederholt M, Greiner M (2014). Toxicokinetics of seven perfluoroalkyl sulfonic and carboxylic acids in pigs fed a contaminated diet. J Agric Food Chem. 62(28):6861-70.
- 17. Olsen GW, Burris JM, Ehresman DJ, Froehlich JW, Seacat AM, Butenhoff JL, Zobel LR (2007). Half-life of serum elimination of perfluorooctanesulfonate, perfluorohexanesulfonate,

- and perfluorooctanoate in retired fluorochemical production workers. Environ Health Perspect. 115(9):1298-305.
- 18. Sundström M, Chang SC, Noker PE, Gorman GS, Hart JA, Ehresman DJ, Bergman A, Butenhoff JL (2012). Comparative pharmacokinetics of perfluorohexanesulfonate (PFHxS) in rats, mice, and monkeys. Reprod Toxicol. 33(4):441-51.
- 19. Tartu S, Bourgeon S, Aars J, Andersen M, Lone K, Jenssen BM, Polder A, Thiemann GW, Torget V, Welker JM, Routti H (2017). Diet and metabolic state are the main factors determining concentrations of perfluoroalkyl substances in female polar bears from Svalbard. Environ Pollut.229:146-158.
- 20. Routti H, Aars J, Fuglei E, Hanssen L, Lone K, Polder A, Pedersen ÅØ, Tartu S, Welker JM, Yoccoz NG (2017). Emission Changes Dwarf the Influence of Feeding Habits on Temporal Trends of Per- and Polyfluoroalkyl Substances in Two Arctic Top Predators. Environ Sci Technol. In press.
- 21. Bjerregaard-Olesen C, Bossi R, Liew Z, Long M, Bech BH, Olsen J, Henriksen TB, Berg V, Nøst TH, Zhang JJ, Odland JO, Bonefeld-Jørgensen EC (2017). Matrenal serum concentrations of perfluoroalkyl acids in five international birth cohorts. International Journal of Hygiene and Environmental Health. Volume 220, Issue 2, Part A, Pages 86-93.
- 22. Calafat AM, Wong LY, Kuklenyik Z, Reidy JA, Needham LL (2007). Polyfluoroalkyl chemicals in the U.S. population: data from the National Health and Nutrition Examination Survey (NHANES) 2003-2004 and comparisons with NHANES 1999-2000. Environ Health Perspect. 115(11):1596-602.
- 23. Kärrman A, Ericson I, van Bavel B, Darnerud PO, Aune M, Glynn A, Lignell S, Lindström G (2007). Exposure of perfluorinated chemicals through lactation: levels of matched human milk and serum and a temporal trend, 1996-2004, in Sweden. Environ Health Perspect. 115(2):226-30.
- Gützkow KB, Haug L.S, Thomsen C, Sabaredzovic A, Becher G, Brunborg, G (2012).
 Placental transfer of perfluorinated compounds is selectiveea Norwegian Mother and Child sub-cohort study. Int. J. Hyg. Environ. Health 215, 216-219.
- 25. Norwegian Environment Agency (2017). Monitoring of environmental contaminants in air and precipitation. Report M-757 pp. 105. Authors: Bohlin-Nizzetto P., Aas W. and Warner N.http://www.miljodirektoratet.no/Documents/publikasjoner/M757/M757.pdf
- 26. Smithwick M, Mabury SA, Solomon KR, Sonne C, Martin JW, Born EW, Dietz R, Derocher AE, Letcher RJ, Evans TJ, Gabrielsen GW, Nagy J, Stirling I, Taylor MK, Muir DC (2005b). Circumpolar study of perfluoroalkyl contaminants in polar bears (Ursus maritimus). Environ Sci Technol. 39(15):5517-23.
- 27. Llorca M, Farré M, Tavano MS, Alonso B, Koremblit G, Barceló D (2012). Fate of a broad spectrum of perfluorinated compounds in soils and biota from Tierra del Fuego and Antarctica. Environ Pollut. 163:158-66.
- 28. Lohmann R, Breivik K, Dachs J, Muir D (2007). Global fate of POPs: current and future research directions. Environ Pollut.150(1):150-65.
- 29. Fisher M, Arbuckle TE, Wade M, Haines DA (2013). Do perfluoroalkyl substances affect metabolic function and plasma lipids? Analysis of the 2007-2009, Canadian Health Measures Survey (CHMS) Cycle 1. Environ Res.121:95-103. Erratum in: Environ Res.126:221.
- 30. Steenland K, Tinker S, Frisbee S, Ducatman A, Vaccarino V (2009). Association of perfluorooctanoic acid and perfluorooctane sulfonate with serum lipids among adults living near a chemical plant. Am J Epidemiol. 170(10):1268-78.
- 31. Weiss JM, Andersson PL, Lamoree MH, Leonards PE, van Leeuwen SP, Hamers T (2009). Competitive binding of poly- and perfluorinated compounds to the thyroid hormone transport protein transthyretin. Toxicol Sci. 109(2):206-16.
- 32. Long M, Ghisari M, Bonefeld-Jørgensen EC (2013). Effects of perfluoroalkyl acids on the function of the thyroid hormone and the aryl hydrocarbon receptor. Environ Sci Pollut Res Int. 20(11):8045-56.
- 33. Jain RB (2013). Association between thyroid profile and perfluoroalkyl acids: data from NHNAES 2007-2008. Environ Res. 126:51-9.

- 34. Wen LL, Lin LY, Su TC, Chen PC, Lin CY (2013). Association between serum perfluorinated chemicals and thyroid function in U.S. adults: the National Health and Nutrition Examination Survey 2007-2010. J Clin Endocrinol Metab. 98(9): E1456-64.
- 35. Webster GM, Rauch SA, Marie NS, Mattman A, Lanphear BP, Venners SA (2016). Cross-Sectional Associations of Serum Perfluoroalkyl Acids and Thyroid Hormones in U.S. Adults: Variation According to TPOAb and Iodine Status (NHANES 2007-2008). Environ Health Perspect. 124(7):935-42
- 36. Chan E, Burstyn I, Cherry N, Bamforth F and Martin JW (2011). Perfluorinated acids and hypothyroxinemia in pregnant women. Environmental Research, 111, 559-564.
- 37. Lee JE, Choi K (2017). Perfluoroalkyl substances exposure and thyroid hormones in humans: epidemiological observations and implications. Ann Pediatr Endocrinol Metab. 22(1):6-14
- 38. Ballesteros V, Costa O, Iñiguez C, Fletcher T, Ballester F, Lopez-Espinosa MJ (2017). Exposure to perfluoroalkyl substances and thyroid function in pregnant women and children: A systematic review of epidemiologic studies. Environ Int. 99:15-28.
- 39. Granum B, Haug LS, Namork E, Stølevik SB, Thomsen C, Aaberge IS, van Loveren H, Løvik M, Nygaard UC (2013). Pre-natal exposure to perfluoroalkyl substances may be associated with altered vaccine antibody levels and immune-related health outcomes in early childhood. J Immunotoxicol. 10(4):373-9.
- 40. Grandjean P, Andersen EW, Budtz-Jørgensen E, Nielsen F, Mølbak K, Weihe P, Heilmann C (2012). Serum vaccine antibody concentrations in children exposed to perfluorinated compounds. JAMA. 307(4):391-7. Erratum in: JAMA. (2012)307(11):1142.
- 41. Dong GH, Tung KY, Tsai CH, Liu MM, Wang D, Liu W, Jin YH, Hsieh WS, Lee YL, Chen PC (2013). Serum polyfluoroalkyl concentrations, asthma outcomes, and immunological markers in a case-control study of Taiwanese children. Environ Health Perspect. 121(4): 507-13.
- 42. Zhu Y, Qin XD, Zeng XW, Paul G, Morawska L, Su MW, Tsai CH, Wang SQ, Lee YL, Dong GH (2016). Associations of serum perfluoroalkyl acid levels with T-helper cell-specific cytokines in children: By gender and asthma status. Sci Total Environ.559:166-73.
- 43. Corsini E, Sangiovanni E, Avogadro A, Galbiati V, Viviani B, Marinovich M, Galli CL, Dell'Agli M, Germolec DR (2012). In vitro characterization of the immunotoxic potential of several perfluorinated compounds (PFCs). Toxicol Appl Pharmacol. 258(2):248-55.
- 44. Butenhoff JL, Chang SC, Ehresman DJ, York RG (2009). Evaluation of potential reproductive and developmental toxicity of potassium perfluorohexanesulfonate in Sprague Dawley rats. Reprod Toxicol 27(3-4):331-41.
- 45. Das KP, Wood CR, Lin MJ, Starkov AA, Lau C, Wallace KB, Corton JC, Abbott BD (2016). Perfluoroalkyl acids-induced liver steatosis: Effects on genes controlling lipid homeostasis. Toxicology. 378:37-52.
- 46. Bijland S, Rensen PC, Pieterman EJ, Maas AC, van der Hoorn JW, van Erk MJ, Havekes LM, Willems van Dijk K, Chang SC, Ehresman DJ, Butenhoff JL, Princen HM (2011). Perfluoroalkyl sulfonates cause alkyl chain length-dependent hepatic steatosis and hypolipidemia mainly by impairing lipoprotein production in APOE*3-Leiden CETP mice. Toxicol Sci. 123(1):290-303.
- 47. Cassone CG, Taylor JJ, O'Brien JM, Williams A, Yauk CL, Crump D, Kennedy SW (2012a). Transcriptional profiles in the cerebral hemisphere of chicken embryos following in ovo perfluorohexane sulfonate exposure. Toxicol Sci. 129(2):380-91.
- 48. Cassone CG, Vongphachan V, Chiu S, Williams KL, Letcher RJ, Pelletier E, Crump D, Kennedy SW (2012b). In ovo effects of perfluorohexane sulfonate and perfluorohexanoate on pipping success, development, mRNA expression, and thyroid hormone levels in chicken embryos. Toxicol Sci. 127(1):216-24.
- 49. Vongphachan V, Cassone CG, Wu D, Chiu S, Crump D, Kennedy SW (2011). Effects of perfluoroalkyl compounds on mRNA expression levels of thyroid hormone-responsive genes in primary cultures of avian neuronal cells. Toxicol Sci. 120(2):392-402.

- 50. Nøst TH, Helgason LB, Harju M, Heimstad ES, Gabrielsen GW, Jenssen BM (2012). Halogenated organic contaminants and their correlations with circulating thyroid hormones in developing Arctic seabirds. Sci Total Environ. 414:248-56.
- 51. Bourgeon S, Riemer AK, Tartu S, Aars J, Polder A, Jenssen BM, Routti H (2017). Potentiation of ecological factors on the disruption of thyroid hormones by organo-halogenated contaminants in female polar bears (Ursus maritimus) from the Barents Sea. Environ Res. 158:94-104.
- 52. Viberg H, Lee I, Eriksson P (2013). Adult dose-dependent behavioral and cognitive disturbances after a single neonatal PFHxS dose. Toxicology. 304:185-91.
- 53. Lee I, Viberg H (2013). A single neonatal exposure to perfluorohexane sulfonate (PFHxS) affects the levels of important neuroproteins in the developing mouse brain. Neurotoxicology. 37:190-6.
- 54. Zhang Q, Liu W, Niu Q, Wang Y, Zhao H, Zhang H, Song J, Tsuda S, Saito N (2016). Effects of perfluorooctane sulfonate and its alternatives on long-term potential in the hippocampus CA1 region of adult rats in vitro. Toxicol. Res 5: 539-46.
- 55. Eggers Pedersen K, Basu N, Letcher R, Greaves AK, Sonne C, Dietz R, Styrishave B (2015). Brain region-specific perfluoroalkylated sulfonate (PFSA) and carboxylic acid (PFCA) accumulation and neurochemical biomarker responses in east Greenland polar bears (Ursus maritimus). Environ Res. 138:22-31.
- 56. Eggers Pedersen K, Letcher RJ, Sonne C, Dietz R, Styrishave B (2016). Per- and polyfluoroalkyl substances (PFASs) New endocrine disruptors in polar bears (Ursus maritimus)? Environ Int. 96:180-189.
- 57. Hoover GM, Chislock MF, Tornabene BJ, Guffey SC, Choi YJ, De Perre C, Hoverman JT, Lee L, Sepúlveda MS (2017). Uptake and depuration of four per/polyfluoroalkyl substances (PFASs) in northern leopard frog Rana pipiens tadpoles. Environ. Sci. Technol. Lett., 4(10):399–403
- 58. Lou QQ, Zhang YF, Zhou Z, Shi YL, Ge YN, Ren DK, Xu HM, Zhao YX, Wei WJ, Qin ZF (2013). Effects of perfluorooctanesulfonate and perfluorobutanesulfonate on the growth and sexual development of Xenopus laevis. Ecotoxicol. 22:1133-1144.

POPRC-13/4: Process for the evaluation of perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride pursuant to paragraphs 5 and 6 of part III of Annex B to the Stockholm Convention

The Persistent Organic Pollutants Review Committee

- 1. Decides to establish an intersessional working group to undertake, in accordance with the revised schedule set out in the annex to decision SC-7/5, the activities specified in the process set out in the annex to decision SC-6/4 for the evaluation of perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride pursuant to paragraphs 5 and 6 of part III of Annex B to the Convention;
- 2. Agrees to work in accordance with the terms of reference for the assessment of alternatives to perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride set out in the annex to document UNEP/POPS/POPRC.13/INF/9.

Annex II

Composition of intersessional working groups (2017–2018)

Working group on pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds

Committee members

- Mr. Jack Holland (Australia)
- Ms. Ingrid Hauzenberger (Austria)
- Ms. Tamara Kukharchyk (Belarus)
- Ms. Estefania Moreira (Brazil)
- Ms. Michelle Kivi (Canada)
- Mr. Pavel Čupr (Czechia)
- Mr. Agus Haryono (Indonesia)
- Mr. Seyed Jamaleddin Shahtaheri (Iran (Islamic Republic of))
- Mr. Mineo Takatsuki (Japan)
- Ms. Helen Jacobs (Jamaica)
- Ms. Katinka Elvira van der Jagt (Luxembourg) (Drafter)
- Mr. Rameshwar Adhikari (Nepal) (Chair)
- Mr. Martien Janssen (Netherlands)
- Ms. Thabile Ndlovu (Swaziland)
- Ms. Maria Delvin (Sweden)
- Mr. Andreas Buser (Switzerland)

Observers

- Mr. Júlio Sérgio de Britto (Brazil)
- Mr. Jean-François Ferry (Canada)
- Ms. Rikke Holmberg (Denmark)
- Mr. Sylvain Bintein (European Union)
- Mr. Alexander Potrykus (European Union)
- Mr. Timo Seppälä (Finland)
- Ms. Sandrine Andres (France)
- Ms. Caren Rauert (Germany)
- Mr. Sam Adu-Kumi (Ghana)
- Ms. Yenny Meliana (Indonesia)
- Mr. Akihiko Ikegawa (Japan)
- Ms. Kayoko Inoue (Japan)
- Mr. Nobutada Kimura (Japan)
- Mr. Kenichiro Fukunaga (Japan)
- Mr. Noriyasu Nagai (Japan)
- Ms. Kanako Seki (Japan)
- Ms. Hiroko Arataki (Japan)

- Mr. Kiyohiro Kubota (Japan)
- Mr. Ryosuke Nabeoka (Japan)
- Mr. Peter Dawson (New Zealand)
- Mr. Cees Luttikhuizen (Netherlands)
- Ms. Trine Celius (Norway)
- Ms. Christel Moræus Olsen (Norway)
- Ms. Mihaela Claudia Paun (Romania)
- Ms. Ekaterina Gudkova (Russian Federation)
- Mr. Pavel Shirokov (Russian Federation)
- Mr. Ivan Djurickovic (Serbia)
- Ms. Victorine Augustine Pinas (Suriname)
- Mr. Daniel Borg (Sweden)
- Ms. Svitlana Sukhorebra (Ukraine)
- Mr. Ian Doyle (United Kingdom of Great Britain and Northern Ireland)
- Ms. Liz Lawton (United Kingdom of Great Britain and Northern Ireland)
- Ms. Karissa Taylor Kovner (United States of America)
- Ms. Laura Nazef (United States of America)
- Ms. Pamela Miller (Alaska Community Action on Toxics)
- Mr. Andrea Volpato (Council of Chemists of the Province of Treviso)
- Mr. Carlo Giovanni Moretto (Council of Chemists of the Province of Treviso)
- Mr. Mark Trewhitt (CropLife International)
- Mr. Philippe Chatton (CropLife International)
- Mr. Richard F. Holt (FluoroCouncil)
- Mr. Ronald Bock (FluoroCouncil)
- Ms. Carole Mislin (FluoroCouncil)
- Mr. Heinz Christmann (FluoroCouncil)
- Mr. Takayuki Nakamura (FluoroCouncil)
- Mr. Keiichi Ohnishi (FluoroCouncil)
- Mr. Kevin Cockshott (FluoroCouncil)
- Mr. K. Russel LaMotte (Global Silicones Council)
- Mr. Anders Bolmstedt (Health Care Without Harm)
- Mr. Eddy Michiels (Imaging and Printing Association Europe)
- Ms. Nicole Mlade (International Council of Chemical Association (ICCA))
- Mr. Matthew Jamieson (International Federation of Pharmaceutical Manufacturers and Associations)
- Mr. Jamshed Ghandhi (International Federation of Pharmaceutical Manufacturers and Associations)
- Mr. Zhanyun Wang (International Panel on Chemical Pollution)
- Mr. Justin Boucher (International Panel on Chemical Pollution)
- Ms. Mariann Lloyd-Smith (International POPs Elimination Network (IPEN))
- Mr. Joseph DiGangi (International POPs Elimination Network (IPEN))
- Ms. Sara Brosché (International POPs Elimination Network (IPEN))
- Ms. Eva Kruemmel (Inuit Circumpolar Council)

- Mr. Luiz Eugenio Pedro de Freitas (Leaf-Cutting Ant Baits Industries Association (ABRAISCA))
- Ms. Juliana Berti (Leaf-Cutting Ant Baits Industries Association (ABRAISCA))
- Mr. Edson Dias da Silva (Leaf-Cutting Ant Baits Industries Association (ABRAISCA))
- Mr. Luiz Carlos Forti (Leaf-Cutting Ant Baits Industries Association (ABRAISCA))
- Mr. Ricardo Edson Merino (Leaf-Cutting Ant Baits Industries Association (ABRAISCA))
- Mr. Sanjay Baliga (SEMI)

Working group on perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds

Committee members

- Ms. Ingrid Hauzenberger (Austria)
- Mr. Jack Holland (Australia) (Chair until 4 May 2018)
- Ms. Tamara Kukharchyk (Belarus)
- Ms. Estefania Moreira (Brazil)
- Ms. Michelle Kivi (Canada)
- Mr. Pavel Čupr (Czechia)
- Mr. Agus Haryono (Indonesia)
- Mr. Seyed Jamaleddin Shahtaheri (Iran (Islamic Republic of))
- Mr. Mineo Takatsuki (Japan)
- Ms. Helen Jacobs (Jamaica)
- Ms. Katinka Elvira van der Jagt (Luxemburg)
- Mr. Rameshwar Adhikari (Nepal)
- Mr. Martien Janssen (Netherlands)
- Ms. Thabile Ndlovu (Swaziland)
- Ms. Maria Delvin (Sweden) (Drafter until 4 May 2018)
- Mr. Andreas Buser (Switzerland)

Observers

- Mr. Jean-François Ferry (Canada)
- Ms. Rikke Holmberg (Denmark) (Drafter from 5 May 2018)
- Mr. Sylvain Bintein (European Union)
- Mr. Alexander Potrykus (European Union)
- Mr. Timo Seppälä (Finland)
- Ms. Sandrine Andres (France)
- Ms. Caren Rauert (Germany)
- Mr. Sam Adu-Kumi (Ghana)
- Mr. Manoj Gangeya (India)
- Mr. Amir Nasser Ahmadi (Iran (Islamic Republic of))
- Mr. Akihiko Ikegawa (Japan)
- Ms. Kayoko Inoue (Japan)
- Mr. Nobutada Kimura (Japan)
- Mr. Kenichiro Fukunaga (Japan)
- Mr. Noriyasu Nagai (Japan)

- Ms. Kanako Seki (Japan)
- Ms. Hiroko Arataki (Japan)
- Mr. Kiyohiro Kubota (Japan)
- Mr. Ryosuke Nabeoka (Japan)
- Mr. Peter Dawson (New Zealand) (Chair from 5 May 2018)
- Ms. Trine Celius (Norway)
- Ms. Christel Moræus Olsen (Norway)
- Ms. Vilma Morales Quillama (Peru)
- Ms. Mihaela Claudia Paun (Romania)
- Ms. Ekaterina Gudkova (Russian Federation)
- Mr. Pavel Shirokov (Russian Federation)
- Mr. Ivan Djurickovic (Serbia)
- Ms. Victorine Augustine Pinas (Suriname)
- Mr. Daniel Borg (Sweden)
- Ms. Svitlana Sukhorebra (Ukraine)
- Mr. Ian Doyle (United Kingdom of Great Britain and Northern Ireland)
- Ms. Karissa Taylor Kovner (United States of America)
- Ms. Laura Nazef (United States of America)
- Mr. Anas Ali Saeed Alnadhari (Yemen)
- Ms. Pamela Miller (Alaska Community Action on Toxics)
- Mr. Andrea Volpato (Council of Chemists of the Province of Treviso)
- Mr. Carlo Giovanni Moretto (Council of Chemists of the Province of Treviso)
- Mr. Mark Trewhitt (CropLife International)
- Mr. Philippe Chatton (CropLife International)
- Mr. Richard F. Holt (FluoroCouncil)
- Mr. Ronald Bock (FluoroCouncil)
- Mr. Takayuki Nakamura (FluoroCouncil)
- Mr. Keiichi Ohnishi (FluoroCouncil)
- Mr. Kevin Cockshott (FluoroCouncil)
- Mr. K. Russel LaMotte (Global Silicones Council)
- Ms. Nicole Mlade (International Council of Chemical Association (ICCA))
- Mr. Zhanyun Wang (International Panel on Chemical Pollution)
- Mr. Justin Boucher (International Panel on Chemical Pollution)
- Ms. Mariann Lloyd-Smith (International POPs Elimination Network (IPEN))
- Mr. Joseph DiGangi (International POPs Elimination Network (IPEN))
- Ms. Sara Brosché (International POPs Elimination Network (IPEN))
- Ms. Eva Kruemmel (Inuit Circumpolar Council)
- Mr. Sanjay Baliga (SEMI)

Working group on perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride

Committee members

- Ms. Ingrid Hauzenberger (Austria)
- Ms. Tamara Kukharchyk (Belarus)
- Ms. Estefania Moreira (Brazil)
- Ms. Michelle Kivi (Canada)
- Mr. Pavel Čupr (Czechia)
- Mr. Agus Haryono (Indonesia)
- Mr. Seyed Jamaleddin Shahtaheri (Iran (Islamic Republic of))
- Mr. Mineo Takatsuki (Japan)
- Ms. Katinka Elvira van der Jagt (Luxemburg)
- Mr. Martien Janssen (Netherlands) (Chair)
- Ms. Maria Delvin (Sweden)
- Mr. Andreas Buser (Switzerland)

Observers

- Mr. Júlio Sérgio de Britto (Brazil)
- Mr. Jean-François Ferry (Canada)
- Mr. Luis Guillermo Romero Esquivel (Costa Rica)
- Ms. Rikke Holmberg (Denmark)
- Mr. Sylvain Bintein (European Union)
- Mr. Alexander Potrykus (European Union)
- Ms. Sandrine Andres (France)
- Ms. Caren Rauert (Germany)
- Mr. Manoj Gangeya (India)
- Ms. Ms. Ajeng Arum Sari (Indonesia)
- Mr. Akihiko Ikegawa (Japan)
- Ms. Kayoko Inoue (Japan)
- Mr. Nobutada Kimura (Japan)
- Mr. Kenichiro Fukunaga (Japan)
- Mr. Noriyasu Nagai (Japan)
- Ms. Kanako Seki (Japan)
- Ms. Hiroko Arataki (Japan)
- Mr. Kiyohiro Kubota (Japan)
- Mr. Ryosuke Nabeoka (Japan)
- Mr. Peter Dawson (New Zealand)
- Ms. Trine Celius (Norway)
- Ms. Christel Moræus Olsen (Norway)
- Ms. Mihaela Claudia Paun (Romania)
- Mr. Ivan Djurickovic (Serbia)
- Ms. Victorine Augustine Pinas (Suriname)

- Ms. Svitlana Sukhorebra (Ukraine)
- Mr. Ian Doyle (United Kingdom of Great Britain and Northern Ireland)
- Ms. Karissa Taylor Kovner (United States of America)
- Ms. Laura Nazef (United States of America)
- Mr. Anas Ali Saeed Alnadhari (Yemen)
- Ms. Pamela Miller (Alaska Community Action on Toxics)
- Mr. Andrea Volpato (Council of Chemists of the Province of Treviso)
- Mr. Carlo Giovanni Moretto (Council of Chemists of the Province of Treviso)
- Mr. Mark Trewhitt (CropLife International)
- Mr. Philippe Chatton (CropLife International)
- Mr. Richard F. Holt (FluoroCouncil)
- Mr. Ronald Bock (FluoroCouncil)
- Mr. Takayuki Nakamura (FluoroCouncil)
- Mr. Keiichi Ohnishi (FluoroCouncil)
- Mr. Kevin Cockshott (FluoroCouncil)
- Mr. K. Russel LaMotte (Global Silicones Council)
- Ms. Nicole Mlade (International Council of Chemical Association (ICCA))
- Mr. Zhanyun Wang (International Panel on Chemical Pollution)
- Mr. Justin Boucher (International Panel on Chemical Pollution)
- Ms. Mariann Lloyd-Smith (International POPs Elimination Network (IPEN))
- Mr. Joseph DiGangi (International POPs Elimination Network (IPEN))
- Ms. Sara Brosché (International POPs Elimination Network (IPEN))
- Ms. Eva Kruemmel (Inuit Circumpolar Council)
- Mr. Luiz Eugenio Pedro de Freitas (Leaf-Cutting Ant Baits Industries Association (ABRAISCA))
- Ms. Juliana Berti (Leaf-Cutting Ant Baits Industries Association (ABRAISCA))
- Mr. Edson Dias da Silva (Leaf-Cutting Ant Baits Industries Association (ABRAISCA))
- Mr. Luiz Carlos Forti (Leaf-Cutting Ant Baits Industries Association (ABRAISCA))
- Mr. Ricardo Edson Merino (Leaf-Cutting Ant Baits Industries Association (ABRAISCA))
- Ms. Meriel Watts (Pesticide Action Network Asia and the Pacific)
- Ms. Emily Marquez (Pesticide Action Network North America)
- Mr. Sanjay Baliga (SEMI)

Annex III

Workplan for the preparation of a draft risk profile during the intersessional period between the thirteenth and fourteenth meetings of the Committee

Scheduled date	Interval between activities (weeks)	Activity (for each chemical under review)
20 October 2017	=	The Committee establishes an intersessional working group
27 October 2017	1	The Secretariat requests Parties and observers to provide the information specified in Annex E for a draft risk profile
8 December 2017	6	Parties and observers submit the information specified in Annex E for a draft risk profile to the Secretariat
19 January 2018	6	The working group chair and the drafter complete the first draft
2 February 2018	2	The members of the working group submit comments on the first draft to the chair and the drafter
16 February 2018	2	The working group chair and the drafter finish their review of the comments from the working group and complete the second draft and a compilation of responses to those comments
23 February 2018	1	The Secretariat distributes the second draft to Parties and observers for comments
6 April 2018	6	Parties and observers submit their comments to the Secretariat
27 April 2018	3	The working group chair and the drafter review the comments from Parties and observers and complete the third draft and a compilation of responses to those comments
30 April 2018	<1	The Secretariat sends the third draft to the working group
14 May 2018	2	The members of the working group submit their final comments on the third draft to the chair and the drafter
28 May 2018	2	The working group chair and the drafter review the final comments and complete the fourth (final) draft and a compilation of responses to those comments
4 June 2018	1	The Secretariat sends the final draft to the Division of Conference Services, United Nations Office at Nairobi, for editing and translation
30 July 2018	8	The Division of Conference Services completes the editing and translation of the final draft
6 August 2018	1	The Secretariat distributes the final draft in the six official languages of the United Nations
17–21 September 2018	6	Fourteenth meeting of the Committee

27

国際連合



SC

UNEP/POPS/POPRC.13/7/Add.2



配布:::一般 2017年11月16日

原文:英語

残留性有機汚染物質に関するストックホルム条約

残留性有機汚染物質検討委員会第13回会議

2017年10月17~20日、ローマにて

第13回残留性有機汚染物質検討委員会の活動に関する報告書

追補

ペンタデカフルオロオクタン酸 (CAS No: 335-67-1, PFOA, パーフルオロオクタン酸)とその塩類および PFOA 関連物質に関するリスク管理評価書

第 13 回会議における、POPRC-13/2 の決定により、残留性有機汚染物質検討委員会は、ペンタデカフルオロオクタン酸(CAS No: 335-67-1, PFOA, パーフルオロオクタン酸)とその塩類および PFOA 関連物質に関するリスク管理評価書(それは、事務局(UNEP/POPS/POPRC.13/3)の注意書きに記載された草案に基づき、会議中に改訂された)を採択した。採択されたリスク管理評価書の文言は、本附属書の追補に記載されている。正式には、まだ編集されていない。

附属書

PFOAとその塩類およびPFOA関連物質 リスク管理評価書

2017年10月

目次

概要		5
1	序文	8
1.1	PFOA とその塩および PFOA 関連物質 の化学的同定	8
1.2	附属書 E 情報に関する POPs 検討委員会の結論	11
	データソース 3.1 締約国とオブザーバーが提出したデータの概要 3.2 その他の重要なデータソース	11 11
1.4	国際条約および枠組みにおける化学物質の状況	12
1.5	国家的または地域的管理措置	12
2	リスク管理評価に関連する要約情報	13
2.1	可能な規制措置の特定	16
	リスク削減目標を達成するための可能な規制措置の有効性と効率性 2.1 短鎖フッ素化代替物質の使用 およびおよび製造の評価 2.2 control measures(規制措置)を実施する際の費用と利益	17 21 27
2. 2.	代替物質(製品およびプロセス)に関する情報 3.1 代替物質の概要 3.2 分野別の側面 3.3 使用されているものすべてに対する代替品が現在特定されないときの使用 3.4 代替物質の要約	30 30 30 38
2. 2. 2. 2.	可能な規制措置を実施するための社会への影響に関する情報の要約 4.1 公衆衛生、環境衛星、労働衛生を含む健康 4.2 農業、水産養殖および林業 4.3 生物相(生物多様性) 4.4 経済的側面 4.5 持続可能な発展への動き 4.6 社会的コスト	41 41 42 42 43 44 45
	その他の考慮事項 5.1 情報へのアクセスと公的教育 5.2 制御およびモニタリング能力の状態	45 45 45
3	情報の統合	46
3.1	リスクプロファイル情報の要約	46
3.2	リスク管理評価書 情報の要約	47
3.3	推奨されるリスク管理措置	50
4	結言	50



概要

- 1. 2015 年 6 月、欧州連合(EU)とその加盟国は、ペンタデカフルオロオクタン酸(CAS No: 335-67-1、PFOA、パーフルオロオクタン酸)、その塩類および PFOA 関連物質 1 をストックホルム条約(UNEP / POPS / POPRC.11 / 5)の附属書 A、B、および/または Cに追加する提案書を提出した。2016 年 9 月の第 12 回残留性有機汚染物質検討委員会 (POPRC) において、PFOA は、人を含む動物に対して残留性、生物蓄積性ならびに毒性があると結論づけた。環境媒体中および生物相と人において、PFOA 関連物質が広く分布している。したがって、PFOA とその塩類および PFOA に分解する PFOA 関連物質は、長距離移動の結果として、人の健康および/または環境に重大な悪影響につながる可能性があることから、グローバルな活動の根拠になっている(UNEP/POPS/POPRC.12/11/Add.2)。
- 2. 対象となる化学物質の範囲は、リスク管理評価書 (UNEP/POPS/POPRC.13/7/Add.2) の 21 項で定義されており、物質の包括的なリストは、UNEP/POPS/POPRC.13/INF/6/Add.1 の文書に記載されている。
- 3. PFOA とその塩類および PFOA 関連物質は、多くのセクター(詳細は UNEP / POPS / POPRC.12 / 11 / Add.2 を参照)で幅広い種類のアプリケーションおよび消費者製品で使用されている。PFOA およびその塩類は、フルオロエラストマーおよびフルオロポリマーの製造における加工助剤として最も広く使用されていた、あるいはされており、ポリテトラフルオロエチレン(PTFE)は、製造に使用される重要なフルオロポリマーである。 例をあげれば、ノンスティック(フッ素樹脂加工)台所用品など。側鎖フッ素化ポリマーを含む PFOA 関連物質は、界面活性剤および表面処理剤として使用される。 例えば、繊維素材、紙、塗料、泡消火剤に含まれる。リスク管理評価書の情報によれば、これらが、PFOA の使用量が最も多い用途であった。
- 4. 放出は過去および継続中の生産、使用および廃棄から発生する。PFOA および/または関連化合物の環境への直接放出は、(不純物としての PFOA およびいくつかの代替物質を含む)PFOA 関連物質の原材料の製造、この化学物質の処理、使用および処分中に PFOA で汚染された製品からの化学物質から発生する。PFOA およびその塩の主な排出先は、廃水および粒子/エアロゾルである。間接的な PFOA の放出は、前駆体の生物的および非生物的(光)分解または変換から生ずる。21 項に定義されているような PFOA 関連物質は、大気、水、土壌、固形廃棄物に放出され、多かれ少なかれ環境や生物中で PFOA に分解される。分解からの PFOA 放出は、例えば、遠隔地の内陸部では、ある局所環境における PFOA 放出の大きな割合を占めている。(詳細は UNEP/POPS/POPRC.12/11/Add.2を参照)。
- 5. グローバルレベルでの国際化学物質管理(SAICM)への戦略的アプローチの活動は、過フッ素化化学物質に関する情報の収集と交換に焦点を当て、より安全な代替物質への移行を支援する。米国環境保護庁(USEPA)の PFOA 管理プログラムや業界別の作業など、PFOA および関連物質を段階的に廃止するための自主的な取り組みが実施されている。2006年には、米国、欧州、および日本におけるフルオロポリマーおよびフルオロテロマーの8つの主要メーカーが、2015年末までに PFOA および関連する長鎖物質の製造と使用の段階的廃止に合意した。同様のプログラムがカナダのメーカーでも行われていた。スチュワードシッププログラムの参加者全員は、施設の排出物や製品の内容物からそれらの化学物質を実質的に排除することに成功した。自主的な段階的廃止には、自主的な取り組みに参加していない国、すなわち中国、インド、ロシアのような PFOA の大規模製造業者および/またはユーザーがある国々の PFOA を使用する製造業者は、含まれていなかった(詳細は UNEP/POPS/POPRC.12/11/Add.2)。
- 6. 規制リスク管理のアプローチは、ノルウェー、EU(現行の規制)、カナダ等における立法管理措置において実施されているか、進行中である。これらの措置は、PFOA

¹ PFOA 関連物質は、異なるアプローチにおいて化学物質の範囲によって異なって定義される。本文書では、「PFOA-related compounds(PFOA 関連物質)」という用語は、1.1 節で定義したように使用される。他の情報源から引用された場合、例えば PFOA-related substances (PFOA 関連物) (例えば、ECHA 2015a で使用される) などの類似用語の元の表現が維持される。

とその塩類、および PFOA 関連物質の市場での入手可能性および使用、製造を適用除外(期限付きまたは期限なし)ありで禁止している。技術的および社会経済的評価に基づいて、これらのリスク管理アプローチは、技術的および経済的に実現可能であると考えられている。2016年にカナダでは、PFOA とその塩類および前駆体ならびにそれらを含有する製品を、製造品に存在しない限り、限られた数の免除を除いて禁止する法律が公布された。ノルウェーは、2014年以降、特定の例外を除いて、消費者製品および繊維製品における PFOA の使用を禁止している。EUでは、PFOA とその塩類および PFOA 関連物質の製造、市場投入、使用(輸入を含む)、およびこれらの物質を含む製品の使用を制限している。EUのリスク管理アプローチは、特定の用途のための免除を考慮している。しかし、長鎖パーフルオロアルキルおよびポリフルオロアルキル物質(PFAS)からの PFOA への分解を対象としていない。米国では、2015年に提案された規則では、新しい用途の評価を可能にし、必要に応じて活動を禁止または制限するために、PFOA および PFOA 関連化学物質の製造業者に USEPA へのこれらの化学物質の新たな使用を通知する必要がある。

- 7. カナダ、EU、ノルウェーにおける PFOA とその塩および PFOA 関連物質の規制リスク管理アプローチを開発する過程で、特定の免除を可能にする技術的および社会経済的情報が意思決定プロセスに含まれている。一般に、これらのリスク管理アプローチは、技術的かつ経済的に実現可能であると考えられている。これらの規制プロセス中に業界関係者から入手した情報は、利害関係者が主張し、科学委員会が代替案は経済的および/または技術的に実現可能ではないと判断した特定の用途については、時限性の有無にかかわらず適用除外が必要であることを示している。PFOA とその塩類および PFOA 関連物質を特定の用途に対する特定の適用除外付きで禁止することも、ストックホルム条約の下で技術的かつ経済的に実現可能であると考えられている。
- 8. 有効性と効率性を考慮した代替物質の入手可能性に関する情報は、用途によっては、現在、適切な代替物質が入手できないことを示している。(1)半導体および関連インフラストラクチャーの製造に使用される装置;(2)ラテックス印刷用インク;(3)労働者を安全衛生上、危険から保護する繊維素材、(4)医療用繊維素材、水処理における濾過、製造プロセスおよび流出物処理での使用を意図された膜;(5)プラズマ・ナノコーティング;(6)医療機器;(7)埋め込み可能な医療機器の製造;(8)フィルム、紙または印刷版に適用される写真コーティング;(9)半導体のフォトリソグラフィー・プロセスまたは化合物半導体のエッチング・プロセス;(10)特定の医薬品;(11)スルフラミドの使用。しかし、これらの用途の大部分については、代替物質の開発が進められている。ストックホルム条約に基づくPFOAとその塩およびPFOA関連物質の制限または禁止は、期限のある特定の免除、または期限のない許容可能な目的を伴って考慮される可能性がある。
- 9. 同様に、PFOAを世界的に規制または禁止するカナダ、ノルウェーおよびEUのアプローチで期待されるように、その塩およびPFOA関連物質は、排出量の減少とその後のばく露を減らすことによって、人の健康、生態系を含む環境、農業に好ましい影響を与える。PFOAとその塩およびPFOA関連物質のリスクの大きさと程度は完全には定量化できない。これらの物質のリスク管理は、無制限の継続的な排出に起因する、潜在的に深刻かつ不可逆的な悪影響を回避するために、科学的データおよび予防措置によって推進されている。利用可能な代替物質は、PFOAとその塩およびPFOA関連物質の無制限使用よりも低い健康リスクをもたらすと期待されている。
- 10. EU、ノルウェーおよびカナダのリスク管理アプローチは、市場が PFOA とその塩および PFOA 関連物質を既に置き換えており、またリスク管理アプローチが特定の用途に時限性の有無にかかわらず免除措置を行っているため、コストへの影響はある程度あると考えられている。米国とオーストラリアで行われた規制と自主的なアプローチを組み合わせても同じことが予想される。残留性有機汚染物質(POPs)特性を示さない PFOA とその塩および PFOA 関連物質のコスト競争力のある代替物質は、既に多くの国で実用化されている。これは、代替物質の部分的な経済的および技術的実現可能性を示している。これらの化合物を適切な代替物質に置き換えることは、ばく露の減少による健康および環境コストの節約につながる。さらに、制限または禁止は、地表水、地下水および土壌のさらなる汚染を防止し、結果、汚染された場所の特定および修復のためのコストを削減するであろう。
- 11. PFOAは、フルオロポリマーの不完全燃焼から意図せずに形成される。

- 12. 当委員会は、条約第8条第9項に従って、ストックホルム条約締約国会議が、PFOA とその塩および PFOA 関連物質に関連する PFOA の規制措置として指定し、リストに入れることを検討することを推奨する:
- 13. 可能な規制措置の使用、有効性と有効性の評価に基づき、当委員会は、ペンタデカフルオロオクタン酸(CAS No: 335-67-1、PFOA、パーフルオロオクタン酸)とその塩および PFOA 関連物質を以下の特別な免除を含み条約の附属書 A または B 記載することを検討するよう締約国会議に勧告する。。
 - (a) 第4条に従って改正が効力を生じた日から5年間:
 - (i) 半導体または関連電子機器の製造:
 - a. PFOA 残留物を有するフルオロポリマーおよび/またはフルオロエラストマーを含む設備または製造プラントに関連するインフラストラクチャー:
 - b. レガシー部品またはレガシー製造工場関連インフラストラクチャー: メンテナンス:
 - c. フォトリソグラフィーまたはエッチング・プロセス:
 - (ii) フィルムに塗布された写真用コーティング:
 - (iii) 労働者を安全衛生上の危険から守るため危険な液体から保護する撥水撥油性繊維:
- (b) 半導体または関連電子機器の製造に関する法律の改正の発効日から 10 年間: レガシー部品またはレガシー改装部品用の PFOA 残留物を含むフルオロポリマーおよび/またはフルオロエラストマーを含む改装部品:
- (c) 医薬品の製造を目的とする、ヨウ化パーフルオロオクタンの使用や臭化パーフルオロオクタンの製造は、引き続き免除の必要性を検討する。いずれにせよ、特定の適用除外は、遅くとも 2036 年に期限切れになる。
- 14. 当委員会は、PFOAとその塩およびPFOA関連物質の製造および使用に関する特定の免除規定を当委員会が定義するのに役立つ情報を提供するために関連業界を含む締約国およびオブザーバーを招待する。特に、以下のアプリケーションにおいて:
- (a) 医療用テキスタイルでの使用を意図した膜、水処理における濾過、製造プロセスおよび流出物処理:適用範囲、使用量、代替物質の入手可能性および社会経済的側面に関する情報:
- (b) 生産現場以外の場所での再処理を可能にするために輸送された隔離された中間体:使用量に、輸送およびリスクの程度、および使用に関する情報:
- (c) 医療デバイス:潜在的に関連する適用除外のために必要と予測される特定のアプリケーション/使用およびタイムラインに関する情報;
- (d) 埋め込み可能な医療機器:使用量、輸送およびリスクの程度、および使用に関する情報;
- (e) フォトイメージング部門:紙と印刷に関する情報、および発展途上国に関する情報;
 - (f) 自動車産業:スペアパーツに関する情報;
- (G) 泡消火剤:混合物の化学組成に関する情報および泡消火剤混合物の予め充填された量の情報。
- 15. 上記のアプリケーションについては、社会経済的側面およびその他の関連情報に関する情報も歓迎される。
- 16. さらに、当委員会は、会期間中に、PFOAの附属書 Cへの掲載の可能性の観点から、追加情報を関係者およびオブザーバーから収集し、評価する。それは委員会による PFOA とその塩および PFOA 関連物質の意図しない生成および放出、特に一次アルミニウム生成およ

び不完全燃焼から生じるものについてのさらなる評価を支援する。その際、決定 SC-8/21 に示されているようなストックホルムとバーゼル条約に基づく様々な技術的および科学的プロセスの下で勤める関連する専門家による情報提供を、特に期待する。

1 序文

- 17. 2015 年 6 月、欧州連合(EU)とその加盟国は、ペンタデカフルオロオクタン酸(CAS No: 335-67-1、PFOA、パーフルオロオクタン酸)とその塩および PFOA 関連物質をストックホルム条約(UNEP / POPS / POPRC.11 / 5)の附属書 A、B、および/または C に追加する提案書を提出した。この提案は、2015 年 10 月に開催された残留性有機汚染物質検討委員会(POPRC)第 11 回会議において検討され、PFOA が附属書 D のスクリーニング基準を満たし、PFOA に分解する可能性のある PFOA 関連物質を含めること、および PFOA 塩類を含めることは、リスクプロファイルのドラフト(POPRC-11/4 決定書を参照)で取り上げるべきである。
- 18. リスクプロファイルによってカバーされる物質は、PFOA とその異性体、その塩および PFOA 関連物質である。2016 年 9 月に開催された第 12 回会議では、当委員会は、POPRC-12/2 の決定によりリスクプロファイル(UNEP / POPS / POPRC. 12 / 11 / Add. 2)を採択し、リスク管理評価書を準備するための会期間作業グループを設立することを決定した。それは、リスク管理 条約附属書 F に従った PFOA とその塩ならびに PFOA 関連物質の可能な規制措置の分析を含む。さらに、当委員会は、締約国及びオブザーバーに対し、2016 年 12 月 9 日以前に附属書 F に規定された情報を事務局に提出するよう要請した。
- 19. このリスク管理評価書は、リスクプロファイルに沿って、異性体、その塩および PFOA 関連物質.を含む PFOA に焦点を当てている。この R リスク管理評価書には、バックグラウンド文書 (UNEP/POPS/POPRC.13/INF/6) が添付されており、リスク管理評価書の対象となる、あるいはならない物質の非包括的リスト (UNEP/POPS/POPRC.13/INF/6/Add.1) も提供され、PFOA 関連物質の特定の手助けとなる。

1.1 PFOA とその塩および PFOA 関連物質の化学的同定

- 20. PFOA とその塩および PFOA 関連物質は、パーフルオロアルキルおよびポリフルオロアルキル物質(PFAS)の化学族に属する。PFOA のような過フッ素化酸は、環境および生態系(人を含む)で分解しない。ある種のポリフッ素化物質は、環境条件下で PFOA のような残留性過フッ素化物質に分解するので、前駆体である。環境中および生物中で PFOA に分解され得る PFAS は、PFOA 関連物質と呼ばれる。
- 21. リスク管理評価書は、以下のものを対象とする:
- (a) その分岐異性体のいずれかを含む PFOA (ペンタデカフルオロオクタン酸、CAS 番号: 335-67-1、EC 番号: 206-397-9)。
 - (b) その塩:ならびに
- (c) このリスク管理評価書の目的上、PFOA 関連物質は、その塩およびポリマーを含む PFOA に分解する物質であり、(C7F15)C部分を持つ直鎖状または分岐状で、構造要素の1つとしてパーフルオロヘプチル基を有する。例えば:
 - (i) C₈以上のパーフルオロアルキル側鎖²を有するポリマー;
 - (ii) 8:2フルオロテロマー化合物;
 - (iii) 10:2フルオロテロマー化合物。

以下の化合物はPFOAに分解しないので、PFOA関連物質として含まれない。

- (i) C_8F_{17} -X, $C \subset \mathcal{C}$, X = F, Cl, Br;
- (ii) CF₃[CF₂] n-R'(R'=任意の基、n≥16³) で覆われたフルオロポリマ

² DuPont, 1998.技術情報:ゾニルフルオロケミカル中間体。

-⁴;

- (iii) パーフルオロアルキルカルボン酸およびホスホン酸(それらの塩類、 エステル類、ハライド類および無水物を含む)で8個以上の炭素原子を 含む過フッ化炭素;
- (iv) パーフルオロアルカンスルホン酸およびスルホン酸(それらの塩類、 エステル類、ハライド類および無水物を含む)で9個以上の炭素原子を 含む過フッ化炭素;
- (v) ストックホルム条約附属書Bにリストされているパーフルオロオクタン スルホン酸 (PFOS)、その塩類、およびパーフルオロオクタンスルホ ニルフルオライド (PFOSF)。
- 22. PFOA に関するデータを表 1 および表 2^5 にまとめる。PFOA 塩および PFOA 関連物質のデータを含む表は、リスクプロファイル(UNEP / POPS / POPRC.12 / INF / 5 の文書の 1.1 節を参照)のバックグラウンド文書に記載されている。

表1:PFOAの化学的同定に関する情報

<u>XI.IIOA の旧子的</u>	17.E1=1217 B 111 1K
CAS 番号:	335-67-1
CAS名:	オクタン酸、2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-ペンタデカフルオロ-
IUPAC名:	ペンタデカフルオロオクタン酸
EC番号:	206-397-9
EC名:	ペンタデカフルオロオクタン酸
分子式	C ₈ HF ₁₅ O ₂
分子量	414.07 g/mol
同義語	パーフルオロオクタン酸; PFOA; ペンタデカフルオロ-1-オクタン酸; パーフルオロカプリル酸; パーフルオロ-n-オクタン酸; ペンタデカフルオロ - n-オクタン酸; ペンタデカフルオロオクタン酸; n-パーフルオロオクタン酸; 1-オクタン酸、2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-8-ペンタデカフルオロ

表 2: PFOA の関連する物理化学的特性の概要

³ PTFE (ポリテトラフルオロエチレン)、FEP (フッ素化エチレンプロピレンポリマー)、PFA (パーフルオロアルコキシポリマー)などが挙げられる。

⁴ フルオロポリマーは、Fのみが骨格 C原子に直接結合した炭素のみのポリマー骨格を有する。

⁵ UNEP/POPS/POPRC.13/INF/6/Add.1.

特性	値	参照/備考	
20°C、101.3 kPa にお	固体	(Kirk, 1995)	
ける物理状態			
融解点/凝固点	54.3°C	(Lide, 2003)	
	44±-56.5°C	(Beilstein, 2005), (ECHA, 2013a)	
		で引用されている	
沸点	188°C (1013.25 hPa)	(Lide, 2003)	
אייאמ	189°C (981 hPa)	(Kauck & Diesslin, 1951)	
蒸気圧	4.2 Pa (25°C) for PFO; 測定デー	(Kaiser & 2005); (Washburn &	
	タから外挿	2005)	
	2.3 Pa (20°C) for PFO; 測定デー	(Washburn 5 2005)	
	タから外挿		
	128 Pa (59.3°C) for PFO; 測定値	(Washburn 5 2005)	
水に対する溶解度	9.5 g/L (25°C)	(Kauck & Diesslin, 1951)	
	4.14 g/L (22°C)	(Prokop & 1989)	
2解離定數	約 0.5	(Johansson 5 2017)	
鎖	<1.6, 例 0.5	(Vierke 5 2013)	
フ	1.5-2.8	(Kissa, 2001)	
ypH 値	2.6 (1 g/L、20°C において)	(ECHA, 2015a) (信頼性指定不可)	

素

化ポリマーを含むフルオロテロマー系物質の主な合成経路および主要なフルオロポリマーの合成経路の概要は、スイス連邦環境森林局(FOEN)が提供する補足情報の2つの図で示されている(FOEN、2017のセクションI)。さらに、フルオロテロマーのPFOAへの変換/分解に関する特定の情報は、その文書に要約されている(FOENのセクションII、2017を参照)。

- 24. PFOA とその塩ならびに PFOA 関連物質の製造プロセスは 2 つある。電気化学フッ素 化 (ECF) ならびに短鎖重合である。1947年から2002年まで、ECFプロセスは主に、全世 界で主としてパーフルオロオクタン酸アンモニウム(APFO; PFOA のアンモニウム塩) 異性 体) 製造に用いられた (2000 年には、80-90%) これは、分岐状および直鎖状異性体の混合物 (78%直鎖および22%分岐鎖)をもたらす。ECFプロセスでは、パーフルオロオクタノイ ルフルオライドを製造するためにオクタノイルフルオライドが一般的に使用されていた。そ れがさらに反応して、PFOAとその塩類が作られた。(Buckら 2011)。また、一部の製造 業者は、直鎖 PFOA と関連物質を作るために短鎖重合プロセスを使用していた。 短鎖重合 プロセスでは、最初のヨウ化パーフルオロアルキル(テロゲン)がテトラフルオロエチレン (タキソゲン)と反応することで、異なるペルフルオロアルキル鎖長を有するヨウ化パーフ ルオロアルキルの混合物(テロマーA)を生じる。テロマーA はさらに反応してエチレンを 導入、フルオロテロマーヨウ化物(テロマーB)を生成し、これを用いて種々のフルオロテ ロマーベースの生成物を生成する。別の研究は、ECFがまだ中国のいくつかの製造業者によ って使用されていることを示唆している(Jiang ら 2015)。 ECF を使用した PFOA の世界的 生産はまだ進行中であるが、短鎖重合を使用する大部分の製造業者は PFOA および関連化合 物の生産を停止している(Wangら 2014a)。
- 25. ISO 規格 ISO 25101: 2009 は、高速液体クロマトグラフィー タンデム質量分析法 (HPLC MS/MS) を用いて、飲料水、地下水および地表水(淡水および海水)の濾過されていない試料中の PFOA の直鎖異性体の測定法を規定する。この方法は、PFOA に対して、10 ng/L~10000 ng/L の濃度範囲に適用される。マトリックスに応じて、この方法は、試料の適切な希釈または試料サイズの縮小(ISO 2009)後に、100ng/L~200000ng/L の範囲の高濃度にも適用可能である。ECHA(2015a)の PFOA 法の要約によれば、定量限界は方法によって異なり、1 ppb から 2000 ppb まで変動する(さらなる詳細は ECHA、2015a、b、c を参照)。PFOA 独特の化学的および物理的特性は、従来の分析を用いた PFOA 測定を妨げる。

液体クロマトグラフィーおよびタンデム質量分析法(LC/MS-MS)を使用するより複雑な分析技術は、生物学的および環境的試料中のPFOAを分析する際、最も信頼性が高いことが証明されており、したがって好まれる分析法である(Xuら、2013; EFSA、2008; Loosら2007)。このタイプの分析は、大気、水、土壌中のPFOA(ATSDR、2015)を含む多くのPFAS の高感度測定を可能にしている。

1.2 附属書 E 情報に関する POPs 検討委員会の結論

- 26. 第 11 回会議(決定 POPRC-11/4) において、当委員会は、EU のペンタデカフルオロオクタン酸 (CAS No: 335-67-1、PFOA、パーフルオロオクタン酸) とその塩および PFOA 関連物質をリストに含める提案 (PFOA 関連物質) は、条約附属書 D (UNEP/POPS/POPRC.12/11) に定められた基準を満たしていると結論した。
- 27. 条約第8条第6項に従ってペンタデカフルオロオクタン酸 (CAS No: 335-67-1、PFOA、ペルフルオロオクタン酸) とその塩類および PFOA 関連物質のリスクプロファイルの草案に基づき (UNEP/POPS/POPRC.12/11)、当委員会は、ペンタデカフルオロオクタン酸 (CAS No: 335-67-1、PFOA、パーフルオロオクタン酸) とその塩および PFOA 関連物質のリスクプロファイル (UNEP/POPS/POPRC.12/11/Add.2) を採択し、ならびに:
- (a) ペンタデカフルオロオクタン酸 (CAS No: 335-67-1、PFOA、パーフルオロオクタン酸) とその塩およびPFOA関連物質は、条約第8条第7項 (a) に従って、その長距離移動の結果として、地球的な行動が正当化されるような重大な人に対する健康への悪影響および/または環境への影響をもたらすと決定された。
- (b) また、条約第8条第7項 (a) および締約国会議の決定SC-1/7の附属書第29項に従って、ペンタデカフルオロオクタン酸 (CAS No: 335-67-1、PFOA、パーフルオロオクタン酸) とその塩類およびPFOA関連物質のための可能性のある規制措置の分析を含むリスク管理評価書を条約附属書Fに従い準備するために会期間作業グループを設立することを決定した:
- (c) 条約第8条第7項 (a) に基づき、締約国及びオブザーバーに対し、2016年12月9日以前に附属書Fに定める情報を事務局に提出するよう要請する。

1.3 データソース

1.3.1 締約国とオブザーバーが提出したデータの概要

28. このリスク管理評価書は、主に条約締結国及びオブザーバーにより提供された情報に基づいている。附属書 F 様式で指定された情報は、以下の締約国によって提出された:

- (a) 締約国:オーストラリア、オーストリア、アゼルバイジャン、カナダ、中国、 コロンビア、デンマーク、インド、日本、モーリシャス、モナコ、ノルウェー、セルビア;
- (b) オブザーバー: 南西繊維協会(SWT)と協力関係にあるバイエルン繊維・アパレル協会(VTB)、欧州アパレル繊維連合(Euratex)、フルオロ技術(Fluoro Council)のためのグローバル企業評議会、ドイツ繊維・ファッション業界連盟、イメージング&プリンティング協会ヨーロッパ(I&Pヨーロッパ)、国際 POPs 排除ネットワーク(IPEN)、半導体産業協会(SIA)。

1.3.2 その他の重要なデータソース

- 29. 締約国およびオブザーバー⁶から受領した上記の参考文献およびコメントに加えて、オープンな情報源ならびに科学文献(参考文献リストを参照)から情報のが使用されている。以下の重要な参考文献は、本文書を作成するための基礎として使用された:
 - (a) PFOA とその塩および PFOA 関連物質 (UNEP / POPS / POPRC.12 / 11 / Add.2)

⁶http://chm.pops.int/TheConvention/POPsReviewCommittee/Meetings/POPRC12/POPRC12Followup/PFOAInfo/tabid/5453/Default.aspx.

のリスクプロファイル。

- (b) 規制の影響は、カナダのリスク管理アプローチ(カナダ 2016c)に関連する声明を分析する。
- (c) PFOA とその塩および PFOA 関連物質(ECHA、2014a)の制限に関する EUの 提案に関する報告書、ならびに EUの科学委員会の意見(ECHA、2015b、2015c)、報告書の修正版(ECHA、2015a)、現在の EU 規制(欧州委員会、2017)。

1.4 国際条約および枠組みにおける化学物質の状況

- 30. PFOS と PFOA のレビューは、オスロ/パリ北東大西洋海洋環境保護委員会 (OSPAR) の下で環境への潜在的な影響を評価するために実施された。2003 年の優先活動のために化学物質のリストに PFOS を含める結果となったが、一方 PFOA はその時点 OSPAR、(2006)でリストに追加されなかった。
- 31. 過フッ素化化学物質およびより安全な代替物質への移行は、国際化学物質管理 (SAICM) への戦略的アプローチによって認識されている懸念事項の1つである。SAICM の活動は、過フッ素化化学物質に関する情報の収集と交換、およびより安全な代替物質への移行を支援することに重点を置いている。この作業は、経済協力開発機構 (OECD) と UNEP の支援を受けているグローバル過フッ化化学物質グループによって協調されている。

1.5 国家的または地域的管理措置

- 32. PFAS のリスク低減アプローチに関する概要は OECD(OECD、2015)によって提供された。この文書には、企業による自主的なリスク低減措置を含む国における既存のリスク低減アプローチに関する情報が含まれている(2015 年の OECD の 61 頁から 64 頁参照)。リスクプロファイル(UNEP / POPS / POPRC.12 / 11 / Add.2)と附属書 F の提出書類によれば、PFOA に関連する国及び/又は地域の規制は以下の項目からなる:
- (a) 2013 年、EU は、残留性,生物蓄積性および毒性のために PFOA およびそのアンモニウム塩(APFO)を高懸念物質(SVHC)と同定し、PFOA および APFO を REACH の候補リスト(ECHA、2013a、2013b)に含めた。要求に応じて、消費者製品中の SVHC が 0.1%(w/w)以上の濃度で存在する場合、産業界は、消費者製品にリストされている物質の発生を消費者に消費者に知らせる義務がある。PFOA / APFO は、規制(EU)317/2014 に従って、消費者への供給のための物質または混合物として制限されている;
- (b) 2014年に、ドイツとノルウェーは、EU内の REACH 規制(ECHA、2014a)の 附属書 XVII(規制)内に PFOA を含めるための共同規制案を提出した。この提案の目的は、PFOA に分解する可能性のある物質(PFOA 関連物質)を含む、PFOA およびその塩の製造、市場投入および使用(輸入を含む)の全面的禁止であった。この規制は、これらの物質を含む製品にも適用される。EUの規制は 2017年7月4日に発効した。規制は 2020年7月4日から適用される(欧州委員会、2017)。
- (c) PFOA は、2013 年 10 月 2 日付け委員会規則(EU) No 944/2013(インデックス番号:607-704-00-2)により、附属書 VI の分類、表示および包装(CLP)規則(規則(EC) No 1272/2008)に含まれた。PFOA は発がん性 2 H351、生殖毒性 1B H360D、授乳に対するまたは授乳を介した影響 H362、特定標的臓器毒性(反復ばく露) RE 1(肝臓) H372、急性毒素 4 H332、急性毒素 4 H302 および眼の損傷 1 H318に分類されている:
- (d) ノルウェー環境庁は、2014年に消費者製品規制の修正案を発表し、PFOAの消費者製品や繊維製品への使用を禁止した。これには、段階的廃止の前に製造された製品の輸入と販売を可能にする移行期間がある。2014年6月1日以来、PFOAとその個々の塩類とエステル類を含む繊維、カーペット、その他のコーティングされた消費者製品および消費者製品の製造、輸入、輸出および市場導入は、特定の適用除外を除き、禁止されている(ノルウェー、2016年;より詳細は2.2節)。
- (e) 2006年6月、カナダ政府は、パーフルオロカルボン酸およびそれらの前駆物質の評価および管理のための行動計画通知を発表した。この行動計画には、環境中のパーフルオロカルボン酸のレベルに寄与する新しい物質のカナダへの導入を防止するための措置が含まれており、産業界が既にカナダの商取引における PFCAs の発生源に対処する措置を模

索している。この目的のために、2010年3月30日に自主的な環境パフォーマンス契約が締結された。パフォーマンス契約の締結国は、2010年12月31日までにカナダの商業部門における過フッ化化学物質のPFOAおよび長鎖パーフルオロカルボン酸の量を95%削減し、2015年12月31日までにそれらを実質的に排除することに合意した。参加企業はこの合意書に基づく目標を達成し、最終報告書は2017年6月1日に公表された。⁷2012年に実施されたスクリーニング評価の結果、カナダ国内では、PFOAとその塩類および前駆体は1999年カナダ環境保護法(CEPA)第64条(a)の基準を満たしており、第1条の表1の有害物質リストに追加された。さらに、2016年10月、カナダでは、特定の毒性物質規制禁止修正条項(2012年)を公表した。2016年12月23日現在、これらの修正では、PFOAとその塩類および前駆体、それらを含む製品は、製造品に存在しない限り禁止されている。⁸さらに、この修正案は、代替物質の開発が進んでいる特定の用途、または現在知られていない代替物質がある特定の用途(カナダ、2016c;詳細は2.2節を参照)に対して、期間限定のexemption(適用除外)と継続的に許可された使用を与える。

- 米国環境保護庁(US EPA)は、2006年にPFOA管理プログラムを設定した。 これは、PFOA とその塩類および PFOA 関連物質(Arkema、旭、BASF、Clariant、ダイキン、 3M / Dyneon、DuPont、および Solvay Solexis) の OECD ベースの 8 大製造業者を含むプログ ラムである。このプログラムは、PFOA、PFOA 前駆体および関連する高級同族体物質 (USEPA、2015)の製造と使用を実質的に段階的に廃止する自発的な取り組みであった。そ れは 2015 年末に成功裏に完了した。 2015 年 1 月 21 日、USEPA は、有害物質管理法 (TSCA) に基づき、PFOA および PFOA 関連化学物質(製品の一部として含む)の製造業者、ならび にこれら化学物質のプロセッサーに、製品でこれらの化学物質の新たな使用を開始または再 開する少なくとも90日前にUSEPAに通知することを要求する重要新規利用規則を提案した。 この通知により、USEPAは新しい使用を評価し、必要に応じて活動を禁止または制限する 措置を講じる機会を得ることができる。9一般に、適格ポリマーは完全な USEPA の新しい化 学物質事前製造通知とレビュープロセスから免除されているが、2010年1月26日をもって 発効し、USEPAは、不純物として特定のパーフルオロアルキル CF3-またはより長い鎖長か らなる部分を含むものを適用除外から外す。この除外には、以下のいずれか1つ以上を含む ポリマーが含まれた:パーフルオロアルキルスルホネート (PFAS)、パーフルオロアルキ ルカルボキシレート (PFAC)、フルオロテロマー類、または炭素原子または硫黄原子のい ずれかに共有結合したパーフルオロアルキル部分を有し、炭素原子または硫黄原子 がポリ マー分子の不可欠な部分(FR 2010 01-27)である物;
- (g) 中国では、2011年に PFOA 製造設備の新規設置を制限するため、PFOA を含有する塗料や重合中に PFOA を使用するフッ素ポリマーを除去し、PFOA 代替物質の開発を促進するためにいくつかの国家措置がとられた。2013年には、PFOA を重合に使用するノンスティック・フライパン、台所用品、食品加工装置用のフルオロポリマー・コーティングは、環境保護のための総合カタログの中でも汚染度が高く、環境リスクの高い製品として認識された。2017年1月に、繊維製品の新しい技術的要件が発効した。特に、被覆乳児用繊維製品では PFOA レベルは 0.05mg/kg、他のすべての被覆繊維製品では、それぞれ 0.1mg/kg に制限されている(VI 節 FOEN、2017)。

2 リスク管理評価に関連する要約情報

33. PFOA およびその塩類は、フルオロエラストマーおよびフルオロポリマーの製造における加工助剤として最も広く使用された、あるいはされており、ポリテトラフルオロエチレン (PTFE) は、製造に使用される重要なフルオロポリマーである。側鎖フッ素化ポリマー

⁷ http://www.ec.gc.ca/epe-epa/default.asp?lang=En&n=AE06B51E-1.

 $^{^8}$ 一定の毒性物質規制の下で、「製造された品目」は、その製造中に「特定の物理的形状またはデザインに形成され、その最終的な使用のためにその形状に全体的または部分的に依存する機能 またはデザイン。」 製造品目の例には、半導体やフライパンが含まれるが、泡消火剤、インク、塗料、コーティング剤などの製品は除外される(RME第1ドラフトへのカナダのコメント)。

 $^{^9 \} https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/and-polyfluoroalkyl-substances-pfass-under-tsca.$

を含む PFOA-related compounds(PFOA 関連物質)は、界面活性剤および表面処理剤として使用される。 (例えば、織物、紙、塗料、泡消火剤に含まれる。) PFOA とその塩類および PFOA 関連物質は、多くのセクター (UNEP / POPS / POPRC.12 / 11 / Add.2) で幅広い種類のアプリケーションおよび消費者製品で使用されている。

- 放出は過去および継続中の生産、使用から発生する。環境への直接放出は、(PFOA 関連物質の製造における不純物としての PFOA やいくつかの代替物質を含む原材料の生産か ら)、処理された製品からの化学物質の処理、使用および処分中に生じる PFOA で汚染され た製品から発生する。PFOA およびその塩類の主な排出先は、廃水および粉塵/粒子である。 PFOA 製造からの環境への 1951 年から 2003 年の間の大気および水域への歴史的放出は、米 国にある工場から入手できる。化学薬品の処分中の排出量の推定値は、特に下水処理場、廃 水処理場、埋立地から入手可能である。間接放出は、前駆体の分解または変換から生じる。 PFOA 関連物質は、大気、水、土壌、固形廃棄物に放出され、環境や生物中で PFOA に分解 される。バルト海への PFOA の供給源の評価では、放出量の 30%がフルオロテロマーの変 換によるものであると推定された。したがって、PFOA 関連物質 の分解による PFOA の放出 は、環境への PFOA の放出 (UNEP / POPS / POPRC.12 / 11 / Add.2) に大きな寄与をもたらす。 さらに、フルオロテロマーの PFOA への変換/分解に関する情報は、FOEN,2017 の II 節に要 約されている。さらなるリスクプロファイル情報の概要は、3.1 節に記載されている。2008 年の調査によると、パーフルオロカーボン (PFCs) はアルミニウム製造に広く使用されてお り、PFCs (PFOA を含む可能性もあるが、この試験では特定されていない) はアルミニウム 製造における特定の電解プロセス中に発生する。
- 35. スイスは、フルオロポリマーの不適切な焼却による PFOA の意図しない生成に関する情報を提供している。 例えば、都市固形廃棄物焼却(MSWI)における不適切な焼却、または中程度の温度での開放燃焼施設からである。最近のいくつかの研究では、小さいが測定可能な量の PFOA とその他広い範囲の PFCA 同族体は、官能基化されていない PTFE (Ellis ら、2001、2003; Schlummer、2015)および官能基化 PTFE (Fengら、2015) の 250 $^{\circ}$ C $^{$
- 国内及び地域の規制措置は、その化学的範囲及び適用除外に関して異なっている(表 36. 3参照))。.現在のリスク管理評価書で議論されている可能な措置の化学的範囲は、他の規 制リスク管理アプローチとは異なる範囲を持ち、ストックホルム条約の原則と義務に基づい ている。このリスク管理評価書の目的で、自然条件下で PFOA に分解されないために (21項 参照)明らかに PFOA 関連物質の定義から除外されているものを除き、8を超える過フッ素 化炭素原子を有する長鎖 PFAS からの PFOA への分解をカバーしていることは注目に値する。 これは、長鎖 PFAS からの PFOA への分解をカバーしていない EU のリスク管理アプローチ を超えている。長鎖 PFAS からの分解も、ノルウェーのリスク管理アプローチでは考慮され ていない。カナダのリスク管理手法は、長鎖 PFCAs、それらの塩類、および前駆体にも適用 される。しかし、長鎖 PFAS は、ノルウェーの 2020 年までに環境への排出を削減すべき物 質の優先リストに含まれており、米国管理プログラム(IPENは、リスク管理評価書の第2 ドラフトにコメントしている)) (RME))。「長鎖 PFCAs」(C_nF_{2n+1}COOH, n>7)の一般 的定義は、OECD(OECD、2017)によって提供されている。既存の製造プロセスの結果と して、フルオロテロマーベースの物質は、一般に、パーフルオロアルキル鎖長の範囲を有す る同族体の混合物として製造されている(例えば、DuPont、1998参照)。10したがって、現 在のリスク管理評価書で提供される情報は、より長い連鎖 PFAS (8:2より長い) を有する それらのフルオロテルマー・ベースの物質もある程度までカバーする。
- 37. 表 3 は、カナダ、EU、ノルウェーにおける規制上のリスク管理アプローチと適用除外の概要を示している。バックグラウンド文書 (UNEP/POPS/POPRC.13/INF/6) の 3 節は、これらの国における立法的アプローチについての詳細を提供する。

 $^{^{10}}$ 主に 1 つの同族体 99%以上を含む市販品が存在する可能性がある; これは追加の精製プロセスを必要とする。

表 3:カナダ、EU、ノルウェーにおける PFOA とその塩ならびに PFOA 関連物質のリスク管理アプローチ、化学的範囲と関連する用途の適用除外の概要(その詳細については、カナダ、2016c、欧州委員会、2017 および ノルウェー、2016 年を参照)。

20100 (50)	安貝云、2017 ねよい ノル カナダ	EU EU	ノルウェー
			· ,
	これらの物質を含む物質お よび製品の製造、使用、販 売、販売または輸入の禁止	(1) 物質として、他の物質の成分として、(2) 物質の1つを含む製品またはその部分品の製造、使用または市場投入を禁止する	(1) 物質を含むテキスタ イル、カーペットおよびそ の他のコーティングされた 消費者製品、および (2) その物質を含む消費者製品 の製造、輸入、輸出および 市場投入を禁止する
化学的範囲 写真イメージング のexemption(適	PFOAとその塩類; 分子式CnF2n+1を有する過フッ素化アルキル基からなる化合物で、n=7または8であり、フッ素、塩素または臭素経合した化合物; 8≤n≤20である分子式CnF2n+1でO2Hを有するパーフルオロカルボン酸およびそれらの塩類;分子式CnF2n+1を有する過なり、フッ素化アルキル基準のであり、フッ素、塩素または直接結合した化合物;(Canada, 2016cを参照) 写真メディアのコーティングは2016年12月31日まで	PFOAとその塩類; 直鎖状または分枝状のパーフル型を有する任意というで、 X=F, Cl, Br; CsF17-C(=O)O-X'またはCsF17-CF2-X'(ここで、X'=塩類とのののののののののののののののでは、 X ** ** ** ** ** ** ** ** ** ** ** ** *	PFOAおよびPFOAの塩類およびエステル類(CAS No: 335-67-1,3825-26-1、335-95-5、2395-00-8、335-93-3、335-66-0、376-27-2、3108-24-5)(Norway, 2016参照)
用除外)	それ以来、製造品目の exemption(適用除外)の下 で部分的に取り込まれてい る	イング	2016年まで
半導体業界に対するexemption(適用除外)	製造品目のexemption(適用 除外)の下で部分的に取り 込まれている	- 半導体の製造に使用される機器(2022年7月4日まで); - 半導体のためのフォトリソグラフィー・プロセス、または化合物半導体のためのエッチング・プロセス; - 半導体または化合物半導体。	半導体用接着剤、フォイル またはテープは、2016年ま で

	カナダ	EU	ノルウェー
消火用剤の exemption(適用 除外)	消火用に使用される aqueous film forming foams(水成膜泡消火薬剤)	- 2020年7月4日以前に市販され、他の消火泡混合物の製造に使用される濃縮消火泡混合物。 - 消火泡混合物: a) 2020年7月4日より前に発売された; b) 4(e)項に従って製造され、訓練目的で使用され、環境への排出が最小限に抑えられ、回収された排水は安全に処分される場合。	規制されていない
医療用途 exemption(適用 除外)	製造品目のexemption(適用 除外)の下で部分的に取り 込まれている	- 医療機器(2032年7月4日 まで); - 医療機器指令93/42 / EEC の範囲内の植込み可能な医 療デバイスの製造。	医療デバイスは、規制から exemption(適用除外)
繊維類の exemption(適用 除外)	製造品目のexemption(適用 除外)の下で部分的に取り 込まれている	- 労働者の安全衛生上の危 険から保護するための繊維 (2023年7月4日まで); - 医療用繊維品、水処理に おける濾過、製造工程およ び廃液処理に使用する膜 (2023年7月4日まで)。	PFOAの濃度が製品のいずれの部分でも1μg/m ² を超えると、消費者用の繊維は規制される。
インクに対する exemption(適用 除外)	水系インクは2016年12月31 日まで	ラテックス印刷用インク (2022年7月4日まで)	
ナノコーティング のexemption(適 用除外)	製造品目のexemption(適用 除外)の下で部分的に取り 込まれている	プラズマ・ナノコーティン グ (2023年7月4日まで)	
食品包装の exemption(適用 除外)	製造品目のexemption(適用 除外)の下で部分的に取り 込まれている		食品包装、食品接触材料は この規制からexemption(適 用除外)されている

38. 長鎖 PFAS に関する特定の情報は、締約国およびオブザーバーの附属書 F提出書類と共には事務局に提出されなかった。さらに、長鎖 PFAS は、EU とノルウェーの規制リスク管理アプローチの社会経済的評価で考慮されていない。したがって、現在のリスク管理評価書の情報は、これまでのところ、長鎖 PFAS を明示的に対象としていない。EU レベルでは、ドイツとスウェーデンは、長鎖 PFCA で鎖長 9~14の炭素原子と関連物質に対する規制提案を作成した。ロリスクアセスメントの結論は、これまでに EU での意図的使用が特定されていないとしても、これらの物質の環境への放出を減らし、将来の製造、市場投入ならびに使用を阻止するために、EU 全体の規制が正当化されている。この EU 全体の措置は、グローバルな行動の第一歩となるかもしれない。

2.1 可能な規制措置の特定

- 39. 規制措置は、条約の下で異なる方法で達成されるかもしれない:
- (a) PFOA とその塩類および PFOA 関連物質 は、附属書 A の特定の部分に付随する特別な免除の有無に関わらず、附属書 A にリストアップすることができる; または

¹¹ https://echa.europa.eu/registry-of-current-restriction-proposal-intentions/-/substance-rev/16121/term.

- (b) PFOA とその塩類および PFOA 関連物質 は、附属書 B にリストアップすることができ、附属書 B の特定の部分に付随する許容される目的/特定の適用除外が具体的な活動を詳述する;および/または
- (c) PFOA は、非意図的残留性汚染物質として Annex C にリストアップされ、人為的起源からの潜在的な形成および非意図的放出を捕捉することができる。
- 40. 可能な規制措置には以下が含まれるであろう: (1) 生産、使用、輸出入の禁止。
- (2) 生産、使用、輸出入の規制。 (3) 廃棄物または排出物の制御; (4) 化学物質の代替物質による代替。 (5) 汚染された場所の浄化; (6) 廃止された備蓄の環境的に健全な管理。
- (7) 廃棄物や備蓄の再利用とリサイクルの禁止。 (8) 職場における exposure(ばく露)限度の設定。 (9) 水、土壌、堆積物または食物における閾値または最大残留限界の確立。
- 41. PFOA は、フルオロケミカルの製造において意図しない不純物として生ずる。しかしながら、製造からの意図しない生成は、代替品の製造における PFOA とその塩および PFOA 関連物質の附属書 A または B の勧告に適切な濃度制限を設定することによって対処することができる。

2.2 リスク削減目標を達成するための可能な規制措置の有効性と効率性

- 42. IPENから提出された情報によれば、PFOAおよびPFOA関連物質の最も費用効果が高く実行可能な規制措置は、特に適切な規制と強制を欠き、インフラストラクチャーが不十分な開発途上ならびに移行諸国に関連するすべての生産、使用、輸出入の禁止である。IPENから提出された情報によれば、これは、適用除外なしでストックホルム条約の附属書AにPFOAとその塩およびPFOA関連物質を掲載することによって最も良く達成されるであろう。第6条に基づく措置は、製造施設付近、空港、軍事基地、その他の汚染地の浄化、および環境に配慮した備蓄および廃棄物の健全な管理(RME第1草稿に関するIPEN意見)。
- 43. EUの規制プロセスにおいて関係者から受け取った情報は、代替物質が経済的/技術的に実現可能でない場合の適用除外が必要であることを示している(ECHA、2014a、2015a)。
- 44. ECHA リスク評価委員会(RAC)および社会経済分析委員会(SEAC)は、特定されたリスクに対処するために、PFOA とその塩類および PFOA 関連物質の制限が EU 全体の最も適切な措置であると考えた。EU の規制は、PFOA の 25ppb 以上の濃度、またはその塩類を含む PFOA 関連物質の 1 つまたは組み合わせが 1000ppb 以上の濃度の発生に調整された。これらの限界値は、避けられない不純物や意図しない汚染物質の存在を反映しており、分析方法の能力を考慮している(European Commission、2017 参照)。EU 内の科学委員会によって提案された変更の詳細は、ECHA、2015c に記載されている。
- 45. カナダ、EU、ノルウェーにおける PFOA とその塩類および PFOA 関連物質 の規制リスク管理アプローチを開発する過程で、特定の免除のために技術的および社会経済的情報が一般または特定の適用除外のために決定基盤として考慮されてきた。結果として、既存の規制上のリスク管理アプローチの除外は、技術的および社会経済的な考慮に基づいて、国における利用可能な化学的および/または非化学的代替品が存在しない可能性がある用途を特定し示すかも知れない。
- 46. 現在、850°C以上の高温で制御された焼却は、通常、先進国の廃棄物焼却炉で実施されている。高温焼却(例えば、1000°C)は、PFOA を破壊し、高度にフッ素化されたポリマーの熱分解による PFOA の形成を防ぐのに有効である(Taylor、2009、Taylor ら 2014 ならびに Yamada ら、2005)。現時点では、(1)煙道ガスが 850°C以上の温度に達する可能性があり、異なる分解生成物をもたらす可能性がある(Garcíaet ら、2007)、地方自治体の廃棄物焼却炉で PFOA の生成がどの程度発生するかは不明である。(2)他の物質が共存し、フルオロポリマーの熱分解を妨げる可能性がある(例えば、PTFE の熱分解は、分解を促進する水蒸気、酸素または二酸化硫黄とは対照的に、水素または塩素雰囲気によって阻害される(Simon と Kaminsky、1998);そして、(3)ダイオキシンや水銀を除去するために設置されるであろうバグハウス濾過(BF)と組み合わせた活性炭注入(ACI)などの技術は、PFCAs も捕捉する可能性がある(EU Commission、2006)。最近の研究では、オランダのハーリンゲンの焼却炉からの煙道ガス中に PFOA が発見された。しかし、Taylor ら、2014 年には、フル

オロテロマーをベースとするポリマーの廃棄物焼却は、米国における一般的な都市ごみの大 領的焼却する条件の下では、検出可能なレベルの PFOA の形成につながらないと結論付けた。

- 47. PFOA またはその塩類は、NaOH 水溶液(Sulzbach ら、1999)および K 2 CO 3 溶液 (Sulzbach ら、2001) 他の処理方法でガス洗浄することによって排気ガスから除去することができる。
- 48. 制御された焼却や排ガス浄化が先進国では、利用されるかもしれないが、それはすべての国で最もコスト効果が高く利用可能な選択肢ではないかもしれない。
- 49. 焼却プロセスで副産物として生成する PFOA には、ポリ塩化ジベンゾ-p-ダイオキシン類およびジベンゾフラン類(PCDD/PCDF)および燃焼によって形成される非意図的残留性有機汚染物質(POPs)放出との関連がある。様々な種類の焼却炉やその他の熱源のために意図せずに製造される POP に関連する利用可能な最良の技術と環境のための最良の慣行(BAT/BEP)は、適切な焼却条件、開放燃焼の低減、煙道ガス処理での低減の提供を含むストックホルム条約第5条および附属書 Cの VA、VI.A および VI.C 節に関連する BAT/BET ガイドラインに記述されている。これらの関連文書に記載されている BAT/BEPは、ヘキサクロロベンゼン(HCB)、ペンタクロロベンゼン(PeCB)、ポリ塩化ビフェニル(PCB)、PCDD/PCDF などの他の意図しない物質、そして、ある程度 PFOA にも適用されている。言い換えれば、意図せずに製造された PFOA の焼却からの放出を最小限に抑えるために必要な技術措置は、焼却プロセスのための既存の BAT/BEPに従うと、ある程度必要である。したがって、他の意図的でない POP の規制措置が既に適用されているため、PFOA の排出削減対策、実施および監督の追加費用は低いと考えられる。
- 50. PFOAのモニタリング、すなわち化学分析のために、他のPOPs (例えばPCDD/PCDF、HCBおよびPCB)のモニタリングプログラムが既に確立されていても、追加コストが生じる。 開発途上国および経済移行諸国では、PFOAのモニタリング能力が必要である。

その他のcontrol measures(規制措置)

- 51. USEPA は、重要な新使用規則や自主的な PFOA 管理プログラム(OECD、2015)を含む、規制上のアプローチと任意のアプローチを組み合わせて使用している。USEPA は、飲料水中の PFOA および PFOS の健康警告レベルを 70ppt(FR 2016 05-25)と確立している。米国バーモント州では、飲料水中の PFOA の健康警告レベルは 20ppt である。 12 米国ニュージャージー州では、飲料水中の PFOA のガイダンスレベルは 40ppt である。 13 中国では、PFOA 製造または PFOA 含有製品を制限し、PFOA 代替物質の開発を促進するためにいくつかの措置が取られた(32 項参照(g))。
- オーストラリアのリスク削減アプローチは、自発的な行動と規制当局の行動の組み合 わせである。1989年の工業化学(通知と評価)法に基づいて実施される規制アプローチは、 PFAS やオーストラリアに導入された新しい PFAS を含む製品を含む新物質の毒性データを 業界に提供するよう求めている。また、オーストラリアは、2002 年以来、長鎖 PFAS に関す る警告を公にすることにより、産業界に求められる情報に基づいて PFAS (PFOA 関連物質 を含む)の製造、輸入および使用を監視し、化学産業および一般市民の意識を高めている。 さらに、オーストラリアに導入される以前の評価のために新しい過フッ素および/またはポ リフッ素化された化学物質には、追加のデータ要件が必要である。新たな PFAS と既存の PFAS を再評価するために、評価の勧告が設定されている。新しい PFC の輸入がリスクプロ ファイルを改善しているが、依然として残留性であり、今も管理されている(オーストラリ ア、2016年)。オーストラリアは、また、地下水が PFOA(RME 第1草案に関する IPEN 意 見)を含む PFAS に汚染されている 18 の優先順位の高い防衛拠点を特定した。PFOS、PFOA、 PFHxS については、オーストラリアは汚染された地域の現地調査し、人の健康リスクアセス メントを実施する際に使用するために、1日の許容摂取量(TDI)として表される健康基準 のガイダンス値を実施している (Australia Gov. 2017)。オーストラリアでは、PFOAの TDI は、体重当たり 0.16µg/kg である。PFOA(AU Health Dep., 2017)の飲料水質値は 0.56µg/L

¹² 以下の URL を参照 http://www.healthvermont.gov/response/environmental/pfoa-drinking-water-2016.

¹³ 以下の URL を参照 http://www.nj.gov/dep/watersupply/dwc_quality_pfoa.html.

である。最近の報告では、PFOAとPFOA(CRCCARE、2017)の修復オプションについて説明している。

- 53. 人バイオモニタリングに関するドイツ委員会は、PFOS および PFOA の新しい HBM-1 値 14 を導いた。HBM 委員会は、2016年 5 月の最後の会合で議論した動物および人疫学研究 に関する文献の評価に基づき、いくつかの公開された明確にした詳細に従って、PFOA および PFOS の血漿中の HBM I 値 2 2ng PFOA / mL および 5 5ng PFOS / mL(UBA、2016)を設定した。
- 54. 2006 年、カナダは「過フッ素化カルボン酸とその前駆体の評価と管理のための行動計画」を発表した。その結果、カナダは、PFOAと特定の長鎖 PFASのリスクを低減するための規制と自発的な行動の組み合わせを実施した。最終的なリスクアセスメントに先立って早期のリスク管理措置として実施された最初の措置は、PFOAおよび LC-PFCAs の製造業者との自主的な環境パフォーマンス合意であった。合意書の署名国は、2010 年 12 月 31 日までに商業部門における過フッ化化学物質の PFOA および長鎖(C_9 - C_{20}) PFCAs の量を 95%削減し、2015 年 12 月 31 日までにそれらを排除することに合意した。2010 年の削減目標はすべての署名国によって達成され、最終報告書は 2015 年の目標が達成されたことを示していえる。2016 年、PFOA は特定の有毒物質規制の禁止(限られた数の exemption(適用除外)で禁止された(カナダ、2016c)。
- 55. 2014 年、デンマーク EPA は、PFOA および PFOA 関連物質を含む、パーフルオロアルキル物質のポイントソースに関連する地下水汚染に関する研究を発表した。地下水汚染の知見に基づいて、健康基準の品質基準を評価し、提案する研究が委託された。この研究は、12の PFAS の飲料水限界値の合計基準を確立することにつながった。限界値は飲料水で $0.1 \mu g/L$ であり、12の PFAS すべての存在の合計基準である。土壌中の同じ PFASs について同様の合計基準限界値、 $0.4 \mu g/L$ (乾燥土壌)(デンマーク、2016 年)が確立されている。デンマーク政府は、また食品包装材における PFC の勧告限度 $0.35 \, \mu/cm^2$ を実際には禁止として実施している。15
- 56. 2014年以来、スウェーデン国家食品庁は、飲料水(NFA 2017)に一般的に発生する PFAS(PFOA を含む)の合計に対する健康基準のガイダンス値を持っている。2016年以来、合計 11の PFAS がガイダンス値に含まれている。PFAS の合計が 90 ng/Lを超える場合、このアクションレベルよりもできるだけレベルを下げることを勧告する。PFAS の合計が 900 ng/Lを超える場合、消費または調理用の水としての使用には推奨しない。 オーストラリア保健省は、最終健康基準ガイドライン値に基づいて PFOA および PFOS/PFHXS の飲料水の品質値を決定した。これらの値は、オーストラリア全土の汚染現場調査と人の健康リスクアセスメントに使用される(AU Health Dep 2017 参照)。USEPA は、飲料水中の PFOA および PFOS の健康警告レベルを確立した (USEPA, 2016を参照)。欧州食品安全機関は現在、PFOA 関連の健康基準のガイダンス値(EFSA、2017)を更新中である。
- 57. ノルウェーは、空港や消防訓練場(ノルウェー、2016年)で水成膜泡消火薬剤 (AFFFs) の使用による PFAS 汚染土壌の継続的な改善を実施している。
- 58. スウェーデン化学品監督局は、PFASの使用を削減するための戦略を発表した (Swedish Chemicals Agency、2016b)。環境汚染をもたらす可能性のある PFAS アプリケーションは、最小限に抑えられ、最終的に中止されるべきである。この目的を達成するための活動には、環境への大規模な直接的排出をもたらし、ストックホルム条約を含む地球規模の分野に取り組むことができる措置の実施の優先順位付けが含まれる。PFAS を含む泡消火剤は、使用後に回収し、破壊することが提案されている(いくつかの免除を含む)(RME 第3草案に関するスウェーデンのコメント)。
- 59. AFFF を使用すると、地中に漏出し、土壌や地下水を汚染する可能性がある。したがって、スウェーデン化学品監督局、スウェーデン市民緊急事態庁およびスウェーデン環境保

¹⁴ HBM I 値は、委員会の現在の評価によれば、健康への悪影響が予想されないため、exposure(ばく露) 低減対策が必要でない体内マトリックス中の物質の濃度を表す。

¹⁵ https://www.foedevarestyrelsen.dk/Leksikon/Sider/Papir-og-pap.aspx.

護機関は、スウェーデン救助隊へのリーフレットを作成し、AFFF(スウェーデン化学品監督局、2017年)の使用を減らすよう勧告を出した。スウェーデンスウェーデン化学品監督局はまた、救助サービスのための訓練と情報提供に注力したスウェーデン市民緊急事態庁と協力している。環境への影響を最小限に抑える方法で消火するための救助サービスツールを提供するためのセミナーが開催された(スウェーデンのRME第3草案へのコメント)。スウェーデンの商業空港は、PFASを、使用時に二酸化炭素と水に分解される非フッ素化代替品に置き換えた(第2回RMEのIPENコメント)。泡消火連合は、適切な泡の選択、泡の囲い込みを含む排出された泡の廃棄、および泡消火水(FFFC)の処分に関するガイダンスを含む「B級泡消火剤の使用に関するベストプラクティス・ガイダンス」を発表した。16なかでも、訓練目的でフッ素系界面活性剤を含まない訓練用泡消火剤の使用を推奨している。

- 60. グリーンピースのデトックス・キャンペーンと有害化学物質排出ゼロ (ZDHC) プログラムは、排水を通じた排出削減に重点を置いている。水中の自主的な最大残留物の限界は、すでに多くの企業 (例えば、H&M、Adidas、Esprit など) (TM、2016) によって推奨され適用されている。
- 61. POPRC は、同様の用途に使用されている PFOA とその塩および関連化合物に高度に 適用可能な PFOS 廃棄物の流れを取り扱う一連の勧告を開発した。決定 POPRC-6/2 は、短期、中期および長期の枠組みにおける一連のリスク低減措置を概説している(詳細については、決定 POPRC-6/2 および UNEP、2017 を参照)。
- 62. 2015 年、スウェーデン環境保護庁は、地下水、地表水、埋立地浸出液、下水処理場からの排水(スウェーデン環境保護庁、2016 年)を含めた約 500 検体の水試料で PFOA (PFOA を含む)のスクリーニングを実施した。特定された最も重要なポイントソースは、泡消火剤が使用された領域(空港および消防訓練施設)ならびに廃棄物および廃水処理施設であった。提案されているリスク低減対策には、ポイントソースからの PFAS の放出の制限、PFAS 含有泡消火剤の使用制限、産業現場での PFAS の使用と排出を制限する国際的な取り組み、PFAS の修復技術の開発が含まれる。スウェーデンでは、2014 年以来、リスクアセスメントやマネジメントなどの PFAS (PFOA を含む)周辺の問題について、他の当局、郡、地方自治体、水生産者などに支援と情報を提供するため、関係するすべての関係機関のネットワークが設立されている(RME 第 2 草稿に対するスウェーデンのコメント)。
- 63. フルオロテロマーをベースとしたポリマー製品の分解は、使用中の劣化(例えば、布地の洗濯からの汚水処理プラント汚泥)または処分(例えば、埋め立てまたは焼却)からのPFCAsの可能な間接的供給源を表すと考えられる(Prevedouros ら、Wang ら、2014a、Wang ら、2014b)。
- 64. 世界中の多くのフルオロポリマーおよびフルオロエラストマー製造業者が、オフガス、廃水流およびフルオロポリマー分散液の処理を含む PFOA および他のフッ素化乳化剤を、それらへの exposure(ばく露)を低減するため、その製造プロセスから回収および再利用する様々な技術を開発し、実施してきた。これらの技術(BAT/BEP)は FOEN、2017の IV 節に要約されている。これらの技術のいくつかは、PFOA および関連化合物(FOEN、2017)の排出およびばく露を減らすために、他の関連産業の廃棄物の処理経路および製品を処理するために使用するものもある。
- 65. 2014年、:フルオロカウンシルは、フッ素系撥水製品に焦点を当てた"Global Environment for Apparel Industry(アパレル業界のための地球環境)"向けガイドライン Best environmental practices(環境のための最良の慣行)(BEP)を発表した(FluoroCouncil、2014)。ガイダンスは、フッ素化された耐久性のある撥水剤の BEP のために以下の概略作業領域に一連の基本的行動を推奨する: (1) 全従業員の環境意識を高める; (2) 製品の安全データシート(SDS)および技術データシート(TDS)のアドバイスに従う; (3) 必要な場合にのみ製品を使用して、所望の効果を得る; (4) 必要なものだけを使用する:化学物質供給者と協力して量を設定する; (5) 予定された工程で使用されるものだけを混合する; (6) バスの変更や溶剤の浪費を避けるために予定を立てる; (7) 品質を危険にさらすことなくこれを行うことができるならば、残った溶剤/余った溶剤を再利用/リサイクルする; (8) す

¹⁶ https://docs.wixstatic.com/ugd/331cad_188bf72c523c46adac082278ac019a7b.pdf.

べての機器を良い作業状態に維持し、定期的な作業監査を実施する; (9) ステンターフレームの乾燥および硬化条件を最適化する; (10) 化学物質を適切に廃棄する; (11) 廃棄物および排出量を最小限に抑える追加の機会を検討する(FluoroCouncil、2014 参照)。

- 66. PFOA 関連物質は、ほとんどのフォトイメージング製品に含まれていないことが業界の関係者により示されている。PFOA 関連物質を含有する少数のフィルムの製造に伴う廃棄物は、典型的には高温焼却によって処理され、余分なコーティング配合物は銀回収のために送られる可能性がある。そのように、廃棄物は高温で焼却される(I&P Europe、2016a)。これはヨーロッパの状況を表している(RME 第 1 草稿に関する IPEN コメント)。
- 67. ストックホルム条約における PFOA とその塩類および PFOA 関連物質のリストに従って、POP の低含有量の濃度レベルは、バーゼル条約との協力により確立される。 環境に配慮した処分を構成する。それは通常、環境的に健全な処分を構成する方法を決定することを任される。条約第6条に従って、廃棄物となる製品および物品の対策を含む廃棄物管理措置を導入することにより、PFOA、その塩および PFOA 関連化合物(PFOA 関連物質)を含む廃棄物が POP の低含有量を超える濃度の PFOA とその塩および PFOA 関連物質の場合は、それらの含有 POPs は破壊されるか、そうでなければ環境的に健全な方法で処分されるような効果的かつ効率的な方法で処分される。これらの措置は、適切な廃棄物処理、回収、輸送および保管にも取り組み、廃棄物からの PFOA とその塩類および PFOA 関連物質への排出量および関連するばく露を最小限に抑えるようにする。低い POP の値の確立とバーゼル条約と協力して開発されたガイドラインは、PFOA とその塩類および PFOA 関連物質を含む廃棄物を環境にやさしい方法で処分するのに役立つだろう(Canada、2016a参照)。

2.2.1 短鎖フッ素化代替物質の使用 およびおよび製造の評価

68. この評価は、社会が必要とする用途を特定することを目的としており、それは、利用できない化学物質および/または化学物質でない代替品である可能性がある。既存の規制リスク管理アプローチ(表 3 を参照)の適用除外は、技術的および社会経済的考慮に基づいて、そのような使用の識別を示すものである。

A. A. 半導体業界での使用

- 69. 業界関係者は、半導体業界での使用が潜在的に重大であると認識している。半導体工業会(SIA)はメンバー企業を調査した。そして、いくつかの企業が先進の半導体を製造するためのプロセスのキー・ステップである(RME 第1 草稿に関する SIA のコメント)フォトリソグラフィー・プロセスで PFOA や関連する化学物質を使用し続けていることを発見した。このセクターは、PFOA および PFOA 関連物質総排出量に対して非常に低い割合を占めている。このセクターで使用される量は、EUで使用される総量のわずかな部分であり、物質は厳密に管理された条件下で使用されると報告されている。OECD 排出シナリオ文書 No. 9、半導体製造におけるフォトレジストの使用(OECD、2010; SIA、2016)には、標準的な規制措置が文書化されている。
- 70. このセクターから提出された情報は、現時点では代替が不可能であり、代替のための期間は長い(10年)ことを実証に務める傾向がある。
- 71. EU内の公聴会では、この使用の特例がなければ、発生する費用は高くなることが確認された。使用量が少なく、排出量が少ないことが期待されるため、EUの規制では、半導体の製造に使用される機器の期間限定のある特例(2022年7月4日まで)が与えられる。
- 72. また、半導体のフォトリソグラフィー・プロセスや化合物半導体のエッチング・プロセス、EU 規制の下で半導体や化合物半導体のエッチング・プロセス (ECHA 2015c、European Commission、2017 参照) には期間限定のない特例が与えられている。
- 73. カナダでは、製造品目の半導体は除外されているが、ノルウェーでは、半導体の接着剤、フォイルまたはテープの適用除外は2016年に終了した。
- 74. SEMI(マイクロ・/ナノ・エレクトロニクス産業の製造サプライチェーンに携わる世界的な業界団体)は、半導体製造のフォトリソグラフィー・プロセスの適用除外を支持し、この適用除外が「許容可能な目的」(RME 第 2 草稿に対する SEMI のコメント)とすべきとしている。

75. さらに、SEMI は適用除外および許容される目的のための多数の追加の提案を提案している。製造装置に加えて、交換およびスペアパーツには期間限定のない適用除外が提案されている。さらに、SEMI は、半導体製造施設の設備関連の化学物質、ガス、および空気の分配および制御システムのための5年間の適用除外を提案している。また、物質または混合物の保管、運搬、輸送のための化学コンテナシステム(RME 第2草稿に関するSEMI のコメント)の5年間の適用除外。さらに、SIA は、供給者に、PFOA および関連する化合物の「ツール」および付属装置の製造における使用に関して、附属書Bの下で許可された目的の適用除外を提供するよう要請する。重要な性能および機能要件を達成するには、少量のPFOA および関連化合物を、ツールおよび附属機器(シール、コーティング、バルブ、ガスケット、これらの工具に含まれる容器、スペアパーツなど)に使用するフッ素ポリマーに組み込む必要がある。これらの複雑な設備は、ばく露の可能性が最小である製造施設で使用される。結論として、SIA は、製造プロセスにおける PFOA および関連化合物の産業用途および高度製造設備におけるこれらの化学物質の使用について、条約附属書Bの下で免除(適用除外)を求めている(RME 第1 草稿に関する SIA のコメント)。

B. 工業用繊維品 17

76. 屋外用途(例:日よけや屋外用家具、キャンプ用品)で使用される工業用でない繊維品では、代替品が利用でき、適用除外はEUでは正当ではない。

77. 石油および燃料濾過のためのフィルタ材料については、いくつかの企業は代替物質が利用できないと主張している。しかし、他の企業は、高性能分野(ECHA、2014a、2015a)で代替物質(短鎖フッ素化化学物質)の入手可能性を報告している。全体的に、適用除外が、主に量、特定の用途および物質のデータ・ギャップのために専門分野で正当化されているかどうかを完全に評価することはできない。個人保護装置は、それぞれの基準(例えば、保護服のための標準 EN 13034)に定められた特定の要件を満たす必要があるため、専門分野における残りの用途に移行期間を与えることに合意することができる。

78. 労働者を安全衛生上の危険から保護するための繊維については、EUで期間限定の特例 (2023年7月4日まで)が与えられている。ECHA SEAC は、医療用繊維品、水処理における濾過、製造プロセスおよび流出物処理 (欧州委員会、2017)における使用を意図した膜に同様の適用除外を提案している。71-3. ノルウェーでは、消費者用の繊維品だけが制限されているが、プロ用の繊維品は対象外である。カナダのアプローチは製造品には適用されない。すなわち、PFOA とその塩およびその前駆体を含む繊維品の輸入、使用、販売および販売の申し込みはカナダでは制限されない。

79. バイエルン繊維・アパレル協会と南西繊維協会(VTB SWT)から提出された情報によれば、撥油、撥水、および化学物質忌避剤仕上げの繊維品の処方剤/混合物として使用される PFOA は、側鎖フッ素化ポリマーの製造の不純物として発生する可能性がある。応用技術は最高の基準で行われ、もしそうであれば、痕跡量の PFOA のみが含浸によって移送される。横断産業として、繊維産業の専門、技術および保護繊維セクターは、自動車産業および航空機産業向けの燃料忌避安全基準だけでなく、特に、医療、化学、環境保護など多くの異なる性能基準を満たさなければならない。これらの織物品のほとんどは長い手順で認証されなければならず、何年もかかる可能性があり、いくつかの繊維品は他のさまざまな EU や国内法によっても規制されている。これらは、ドイツの「TL」と呼ばれる別の企業の基準と規制によって補完されており、それは、技術性能プロファイルと訳される。ドイツの繊維産業従業員は適切に訓練され、労働安全衛生は厳密に満たされ、監視されている(VTB SWT、2016)。ドイツで使用されているような技術基準は、良い習慣の例として入念に実施することができる(RME 第 2 草稿に対するオランダのコメント)。しかし、他の国や地域の PFOAの量や製造プロセスや条件は不明であり、相当なものになる可能性があり;人ばく露および環境放出(RME 第 1 草稿に関する IPEN のコメント)という結果となる。

¹⁷ 高性能を要求される工業用繊維品とは、労働者を安全衛生上の危険から保護するための繊維や、医療用繊維品での使用を意図した繊維膜、水処理または製造プロセスにおける濾過、流出物処理など用の繊維を意味する。

- 80. 繊維処理に使用される PFOA 関連物質(例えば、8:2 フルオロテロマーアクリレート)に基づく側鎖フッ素化ポリマーは、PFOA 関連物の 2%の未結合残基を含む(Russel ら、2008)。これらの未結合残留物は、繊維の使用段階および廃棄段階で空気 および水を経て環境中に放出される。さらに、PFOA 関連物質は含浸剤(ECHA 2015a)で使用することができる。ヨーロッパのアパレル・繊維連合(EURATEX)は、労働安全にとって重要な撥水、撥油および化学忌避物質に対する適用除外を含めることを検討している。6年に渡る移行期間は、欧州の REACH プロセス(Euratex、2016)において、より優れた性能と環境によりやさしいフッ素化ポリマーと非フッ素化ポリマーの代替物質の成果を継続的かつ新しいプロジェクトで提供することが可能となる。
- 81. 織物 + モード協会によれば、リスク低減目標を達成するために多くのことが行われる。一般的な方法は封じ込め技術である。PFOAのリサイクルと重合中の再利用、ならびに汚染された空気とプロセス廃水からの保持を可能にする。繊維品の精製の間、排出物の最小化は常識である。生産における環境のための最良の慣行(BEP)の使用は、排出を回避し、および/または、それらを非常に低いレベルに低下させる主要な鍵である。EUでは、BEPを尊重して繊維製品が製造されている。フッ素化製品による処理は、耐久性のある撥油性および撥水性による環境への影響を最小限にすることを目的としている。過去数十年の間にその特性が開発され、最適化され、この高いレベルの保護に達し、これを維持している。したがって、耐久性のある撥水性性能基準を満たさなければならない専門的、技術的および保護的な繊維製品の適用除外は不可欠であると考えられている(TM、2016)。

C. 特定の印刷インク

82. EUの公聴会の間に提出された業界からのコメントは、プロフェッショナルプリンタで使用されるラテックスインクに PFOA および関連化合物が存在していることを示している。この使用は、もはや製造されていないプリンタでのみ続くので、段階的廃止は既に進行中である。使用量と関連する排出量は明らかに減少傾向にあるようである。問題のプリンタとインクを製造してきた問題の会社は、5年間の移行期間がない場合、使用中のプリンタを早期に交換する必要があり、画像の品質が低下するので費用は高くなると主張している。EUの科学委員会は、ラテックス印刷(ECHA、2015c)のために5年間の過渡期を受け入れることが正当化されると結論づけた。そのため EU 内で期間限定の特例が与えられた(欧州委員会、2017年)。水系インクについては、カナダでは2015年12月31日までの期間限定適用除外が行われている(RME第1草稿に関するカナダのコメント)。しかし、ノルウェーのリスク管理アプローチは、消費者製品にのみ適用され、プロ用用途/プリンタ用インクでのPFOAの使用は制限されていない。

D. D. 短鎖フッ素化代替物質の製造

フルオロカウンシルによれば、産業界は、生産現場とは別の場所で C₆ フルオロテロ マー代替物質を製造するために分離された中間体として PFOA および PFOA 関連物質の不可 避の部分の再処理を行うことがあるため、輸送分離された中間体の 適用除外が必要である (RME 第 2 草稿に関するフルオロカウンシルのコメント)。 EU 規制(EC) No 1907/2006 の第 18条(4) のポイント(a) ~ (f) の条件が満たされている場合には(European Commission, 2017)、第4項(c)のEU規制にに従って、輸送制限分離中間体の期間限定なしの適用除外 が与えられる。生産現場以外の場所での再処理を可能にするために、移送された分離された 中間体のストックホルム条約の下で適用除外 も検討されるべきである。この条件は、EUの リスク管理アプローチの下で確立された条件と類似している可能性がある。つまり、中間体 からの他の物質の合成は、以下の厳密に管理された条件下で他の場所で行われる: (1)物 質の製造、精製、設備のクリーニングおよび保守、サンプリング、分析、設備または容器の 積み降ろし、廃棄物の処理または浄化および保管を含むライフサイクル全体の技術的手段に よって厳密に封じ込めること: (2) 排出量およびその結果生ずるばく露を最小限に抑える 手順および制御技術を使用するものとする; (3) 適切に訓練された権限のある要員のみが 物質を取り扱うこと; (4) 清掃および保守作業の場合、システムを開封して入室する前に パージおよび洗浄などの特別な手続きを適用すること; (5) 事故の場合および廃棄物が発 生した場合、浄化または清掃および保守手続き中に発生するばく露を最小限に抑えるために 手順および/または制御技術が使用される;(6)物質取扱い手順は良く文書化されており、 現場技師によって厳密に監督されている。

E. E. フォトイメージング

- 84. イメージング・アンド・プリンティング協会ヨーロッパ(I&P Europe)によると、自主的に採択された主要な管理措置は、代替品の開発を追求することであった。2000年以来、業界は多くの製品を再処方/中止し、PFOA 関連物質の使用を世界全体で 95%以上削減した。残りのいくつかのアプリケーションでは、現在のところ代替品は存在しないが、デジタル・イメージングへの移行が進むにつれて、これらの物質の使用をさらに削減することが期待されている。I&P Europe は、継続的な使用のための追加の規制措置は必要ではないと考えている(I&P Europe、2016a)。
- 85. I&P Europe によれば、残りの関連するイメージング製品の製造における PFOA 関連物質の不足は、ヘルスケアや軍隊などの関与する顧客グループにも悪影響を及ぼす。例えば、医療分野を考慮すると、現在、従来型写真製品の廃止によって必要とされる新しい技術に投資する予算の制約が厳しい病院や医院にとっては、財政的な挑戦かもしれない。そのような影響は、イタリア、スペイン、ポルトガル、ギリシャ、およびいくつかの東欧諸国(I&P Europe、2016a)などの医療分野の途上国および特定のEU諸国でより大きくなることが予想される。
- 86. EU のリスク管理アプローチの中で、フィルム、紙または印刷版(欧州委員会、2017)に塗布される写真コーティングの適用除外が与えられている。ノルウェーとカナダにおけるこの使用の特定の適用除外は2016年に失効しました。しかし、ノルウェーのリスク管理アプローチは消費者製品にのみ適用され、カナダのアプローチは製造品には適用されない。したがって、フィルム、紙または印刷版に塗布されるフォトメディア・コーティングの輸入、使用、販売および販売のオファーは、カナダでは制限されていない。

F. ナノコーティング

87. 規制文書に関する EU の公聴会で、スマートフォンのコーティングを行っているただ一つの企業は、代替品(または代替物質) C₆化学物質(ECHA、2015c)に移行できるようにするために、パルス・プラズマ・ナノコーティングに3年間の特例を求めている。(ナノコーティングを施している。プラズマ・ナノコーティングの場合、EU (European Commission, 2017) では、期間限定の適用除外(2023年7月4日まで)が与えられている。カナダのアプローチは製造品目には適用されない。したがって、フィルム、紙または印刷版に塗布されるコーティングの輸入、使用、販売および販売のオファーは、カナダでは制限されていない。

G. スペアパーツ

- 88. EUの業界関係者は、様々な種類のスペアパーツ(航空、電気通信、半導体、情報通信技術産業)の適用除外を要請した。この懸念は、発効日に既に製造された EUのスペアパーツが市場に出て使用される可能性に関連している。彼らのコメントによると、特例がなければ、そのスペアパーツは破壊されなければならず、これは EU 製造業者の経済的損失を意味する。 ECHA RAC と SEAC は、以下のことを見出した。それは、スペアパーツ在庫に対する特例が発効する以前にすべての応用にたいする制限が正当化されたことである。スペアパーツの撤去の費用と長寿命化(ECHA, 2015c)に関連する低排出を考慮してのことであり、上記の事例を含むが、その他のケースを含む。EUの規制では、スペアパーツに対する適用除外はない(European Commission、2017)。
- 89. さらに、カナダ自動車工業会(CVMA)は、自動車サービスおよび交換部品の特定の適用除外を要求している。CVMAによれば、業界は積極的にPFOAの使用を段階的に廃止してきている。ただし、サービスおよび交換部品には依然としてPFOAが含まれている可能性がある。これらのパーツは、PFOAの使用割合が小さく、製品車両群の入れ替え伴って自然に減少する。自動車メーカーは、顧客の要求(CVMA 2017)を満たすために、元の機器とスペアパーツの可用性を確保する必要がある。IPENから提出された情報によれば、適用除外は、生産と使用から人と環境への継続的なPFOAの放出をもたらす結果となる。
- 90. **SEMI** によると、半導体産業における製造設備および関連するインフラストラクチャーに関しては、レガシー機器またはレガシー製作プラント・インフラストラクチャーのメンテナンス、スペア、交換、または改装された部品についても移行期間が必要となる (RME2017 第一草稿に関する **SEMI** のコメント)。

H. 泡消火剤

- 91. AFFF は、火災を消火するために世界的に使用される消防および/または蒸気抑制製品の総称である。AFFF は、クラス B(引火性液体)火災の消火に特に効果的であるように設計されている。 AFFF には PFOA または PFOA 関連物質が含まれている可能性がある。すべての状況が必ずしも泡消火剤の使用を必要とするわけではない。手元の特定の状況(緊急事態または火災/財産保護システムの設計)およびその地方建築規定およびその他の規制の検討を慎重に考慮するだけで、適切な製品選択が決定される。過去 10 年間、AFFF 製造業者は PFOS ベースの製品をフルオロテロマーベースのフルオロ界面活性剤で置き換えてきている。現在、ほとんどの泡消火剤は、パーフルオロヘキサン(C_6)鎖を基にしたフルオロ化学物質/テロマーで製造されている(詳細は UNEP/POPS/POPRC.12/INF/15/Rev.1 を参照)。 クラス B 火災(スウェーデン化学品監督局、2016a)における多くの使用分野の効率要件を満たす消火代替品 PFOA 関連物質を含有する泡消火剤の場合、いくつかの選択肢が存在する($154\sim161$ 項を参照)。
- 92. 既に使用されている泡消火剤の適用除外と矛盾なく、そして適用除外された泡消火剤の早期交換の必要性を避けるために、SEAC は 20 年間 EU の規制からこれらの混合物を撤回することを提案した。これは泡消火剤の通常の寿命であり、この期間は公聴会(ECHA、2015c)からのコメントによっても支持されている。ヨーロッパのプロセスでは、高リスクの化学プラントや大量の貯蔵場所で、PFOA および関連物質含有量が 1,000 ppb までのフッ素含有泡剤がさらに 10 年間必要となることに対する消防隊員や発泡メーカーの懸念にもかかわらず、欧州委員会は、完全にフッ素を含まないフォームの有効性と有効性を実証する、2つの異なる情報源から十分な情報を得た。さらに、短鎖フッ素系発泡体は既に存在する。ここで、PFOA および PFOA 関連物質の不純物は、その存在が技術的性能に不可欠ではなく、問題であると思われる。欧州委員会は、3 年間の一般延期は、泡消火剤製造業界がその処方を制限に適合させるための妥当な期間でなければならないと考えた。
- 93. IPEN から提出された情報によると、泡消火剤の通常の寿命は、温度と保管条件によって大きく異なる。20 年は、多くの国で地下水の大規模な汚染につながった POPs の継続的な散布使用に対する不適切な時間の長さである。 オーストリアに支持されているドイツは、泡消火剤が非常に安定しており、火災の際に使用するまで非常に長い時間保管することができるため、既に市場に出ている泡消火剤の使用のための短い移行期間を含むことを提案している。この排出源からの環境への継続的な排出を避けるためには、既存の泡消火剤を持続可能な/適切な代替品に置き換えるべきである(RME 第 1 草案に対するドイツのコメント、RME 第 2 草案に対するオーストリアのコメント)。
- 94. EUの公聴会の中で、専門家用途の新しいの AFFF の市場投入に関しては、一部の関係者(消防サービス、泡消火剤メーカー)が、PFOA 関連物質および PFOA のより高い濃度制限、あるいは泡消火剤の全面的な適用除外を要求していることを SEAC は指摘している。全体としては、SEAC は、提供された情報を考慮し、泡消火剤濃縮物に使用する場合は、PFOA または PFOA 関連物質の双方、あるいは、それぞれについて 1000 ppb の上限値を採用することを提案し、この濃度限度を再検討して、(ECHA、2015c)の 5 年の制限の発効後の提案される見直しで上限を引き下げることを念頭に置いている。
- 95. 第4項 (e) の EU 規制内で、2020 年7月4日以前に市販され、使用される、または他の製品の製造に使用される濃厚消火泡混合物については、適用除外が与えられる。適用除外は、(1) 2020 年7月4日以前に発売された泡消火剤混合物または(2)第4項 (e) に従って製造された消防用混合物について与えられる。その場合、環境への排出は最小化され、回収された廃液は安全に処分され(European Commission、2017)なければならない。カナダでは、消防用途(カナダ 2016c)で使用されている AFFF には期間限定のない適用除外が与えられている。ノルウェーは、泡消火剤の適用除外はないが、リスク管理アプローチは消費者製品に関わるものであり、AFFF は専門家用途のみである。カナダ燃料協会(CFA)は、RME(RME 第2草案の CFA のコメント)で提案されているように、AFFF の適用除外を支持している。

I. 医療デバイス

96. EUの公聴会では、関係者は代替が進行中であることを示しているが、サプライチェーンと認証プロセスが複雑であることを考えると、長いプロセスである。最低5年間の一般的な移行期間が要求されたが、一部のデバイスではこの移行期間が短すぎる可能性がある。

埋め込み型医療機器の特別なケースでは、製造業者は 15 年間の移行期間を要請した (ECHA、2015c)。

97. EUの規制の範囲内で、指令 93/42 / EEC の範囲内の埋め込み型医療デバイス以外の医療デバイスについては、期間限定適用除外(2032年7月4日まで)が適用除外される。さらに、特定の埋め込み型デバイス(European Commission、2017)の製造には、期間限定のない適用除外が与えられている。ノルウェーは、医療デバイスに(期間限定なし)の適用除外を実施している。

J. 医薬品製造における輸送中間体の使用

- 98. 化学業界によると、すべての医薬品、ならびにその他の高度に特殊化された化学物質で PFOA 関連化学物質を原材料および/または処理媒体として使用し、特定の性能基準 (FluoroCouncil、2016a) で社会経済的利益をもたらすものについて、代替物質がまだ開発されていない。「他の高度に特殊化された化学物質」を特定する情報はない。SAICMの文脈では、医薬品は人の健康や動物の福祉にとって大きなメリットがあると認識しているが、残留性の医薬品汚染物質がグローバルな新たに発生した政策課題として採用されている。パーフルオロオクチルブロミド (PFOB) は、ヨウ化パーフルオロオクチル (PFOI) から製造される。PFOI は、6:2フルオロテロマー系物質の製造(テロメリゼーション、閉鎖系での分離および蒸留)の間に、日本の単一サイトで生成され、その後、分離された中間体として日本の別の場所に運ばれて PFOB が生成される。PFOI のこの生産から発生するすべての廃棄物は閉鎖系で回収され、焼却される。 大気への少量の排出量が予想され得、それは年間 1kg 未満と推定される。 その後、PFOB は関連する製薬製品の製造のため米国とスウェーデンの 2 つのサイトに輸送される。 (RME 第 2 回に関するダイキンのコメントと IFPMA からの POPRC-13 の情報)
- 99. PFOB は、医薬用途のための「微孔質」粒子の製造における加工助剤として使用される。PFOB は PFOA 関連化合物ではない。しかし、PFOB には意図しない微量の PFOI、PFOA 関連化合物が含まれている。完成した「微孔質」医薬品中の残留 PFOB は、典型的には 0.1%であり、0.1ppmのレベルで残留 PFOI と解釈される。 多孔質粒子中の PFOB の検出限界は 0.1%である。 現在製造されているすべての医薬品の PFOI 残留物は合計で年間 2g 未満である。医薬品製造からの環境への PFOI の排出量は現在、年間 30g 未満である。プロセス廃棄物中の PFOB は、利用可能な最善の技術である連続炭素床で捕捉され、それは、排出量を 1%未満、典型的には 0.1%未満に制御する(POPRC-13 の IFPMA からの情報)。
- 100. 「微孔質」粒子は、効果を最大にするために、2種以上の活性医薬成分を所望の比で1つの医薬品に組み合わせることを可能にする。微孔性粒子技術は、また、肺における送達効率および標的送達を可能にする。 現在市販されている製造された医薬品は、慢性閉塞性肺疾患(COPD)、嚢胞性線維症(CF)を有する患者の治療用である。 早期および後期段階の開発において、追加的製薬応用に関する研究が進行中である(POPRC-13の IFPMA からの情報)。
- 101. 少なくとも 15 種類の薬剤をスクリーニングした代替品(または代替物質)薬剤を特定するために広範囲な努力がなされてきたが、PFOBが「微孔質」医薬品の製造に適した唯一のものであることが判明し、人への投与に安全な適切な毒性プロファイルを有することが判明した。(Imagent®の NDA 020-091 FDA 承認)。 これらの努力を考慮すれば、「微孔性」粒子の特性を損なうことなく alternative(代替品(または代替物質))薬剤を特定することはあり得ない。 代替品(または代替物質)が見つかったとしても、これにはさらに臨床試験の繰り返しと再登録が必要となり、これには 10 年間を超える期間が必要なる。 このタイプの医薬品については、患者への継続的な供給を確保する必要があるため、この申請に対処するための適切な方法をさらに検討する必要がある。(POPRC-13 の IFPMA からの情報)。

K. スルフラミドの使用

102. N-エチルパーフルオロオクタンスルホンアミド(スルフラミド; EtFOSA; CAS No: 4151-50-2 として知られている)は、南米の多くの国々で、移入されたヒアリならびにシロアリ(UNEP/POPS/POPRC.6/13/Add.3/Rev.1)だけでなく、Atta spp.および Acromyrmex spp.からのハキリアリの防除のためのアリ餌の有効成分として使用されてきた。 フッ素系界面活性剤は、殺虫剤(UNEP/POPS/POPRC.12/INF/15/Rev.1)の「不活性」界面活性剤(殺虫剤で使用されるが活性成分を構成しないエンハンサー)として使用することもある。

103. ブラジルからの代表団によれば、ブラジルのスルフラミドの使用は、 $1 \sim 2$ タール当たり最大 14.5%の木の損失に対応する損傷を防止するため、スルフラミドがハキリアリの防除のための餌に使用されている。大きな損失を被る他の農産物は、大豆とトウモロコシである。また、放牧のための飼料がアリによって減られると(ANEP/POPS/POPRC.12/INF/15/Rev.1)、 ~ 2 タール当たりの家畜飼養能力が低下する可能性がある。 18

104. *Atta spp*.および *Acromyrmex spp*. からのハキリアリの防除のための昆虫餌は、 附属書 B (UNEP / POPS / POPRC.12 / INF / 15 / Rev.1) に PFOS とその塩および PFOSF の製造及び使用に許容される目的物質としてリストアップされている。

2.2.2 control measures(規制措置)を実施する際の費用と利益

105. HELCOM の報告書では、PFOA を含む有害物質の廃棄量、排出量、損失を削減するための費用対効果の高い管理オプションが評価されている。産業界の対策に加えて、都市部の対策、活性炭による都市排水の高度処理などでも、PFOS / PFOA の排出を削減することがきる(詳細については、HELCOM、2013 を参照)。

106. PFOA はすでに多くの用途で広く段階的に廃止されており、代替物質のコストがPFOA 代替を阻害していないことを示している。製品の代替品のコストを評価する際に考慮すべき重要な点は、次のとおりである。耐久性およびその他の要因を考慮した場合、初期購入費用がより高い代替品は、製品の全寿命にわたっては、実際に安いかもしれない。代替品の大量生産は、コストを大幅に削減する可能性がある。健康と環境を保護するためのイニシアチブの費用は、しばしば事前に過大評価され、規制が実施された後は急速に低下する。最終的には、end-of-life(使用済み)製品の環境的に健全な廃棄のコストも考慮すべき重要な要素である(Ackermann と Massey、2006)。

107. EUの規制については、EUの規制案に基づく代替コストは、以下に関連して見積もられている: (1) フルオロポリマーの輸入および PTFE 混合物の使用; (2) EU における繊維製品の使用; (3) 製品中の繊維品の輸入; (4) 泡消火剤; (5) 紙; ならびに (6) 塗料およびインク。この見積もりは、現在の用途(最悪のシナリオ)および制限が効力を生じた後の期間(より現実的な場合)について、業界によって行われました。データがないため、製品、写真アプリケーション、および半導体における PFOA の輸入に関連する見積もりは行われなかった。推定代替費用は、EU の場合、より現実的な場合の 1.39 億から 158.44 億ユーロで中央推定値は 3,470 万ユーロである(ECHA、2015a、表 F.2-6 参照)。

108. 業界との EU の公聴会は、主要フルオロポリマー製造業者がすでに PFOA を代替するいくつかの代替物質を開発していることが示されている。これらの選択肢は、しばしば独占的に製造され、各社によって使用される。その結果、通常、市場価格は(まだ)入手できない。しかし、フルオロポリマー製造業者への提案された制限の費用を評価するために使用することができる運転コストの増加にはいくつかの兆候がある。従って、代替物質の使用は、生産コストの低~中程度の増加(0-20%)を引き起こすと推定される。この増加は、より高いコストおよび/またはより多くの代替物質が使用されることによって生じる。業界は、代替物質(ECHA、2015a)で製造された PTFE の品質に変化はないと述べている。

109. 投資コストに関しては、PFOA および PFOA 関連物質の(以前の)製造業者を中心に、EUの規制の準備中に、研究開発努力と資本の面で短鎖 PFAS を開発するためにかなりの資源をすでに投資している(5億ユーロと報告されており、EUの公聴会でも確認されている)。下流側のユーザーにとっては、製品の再処方、生産プロセスの適合、テストなどのために、短鎖代替品に大幅なコストがかかることが予想される。この点で、手近の例の特定の条件(ECHA、2015a)によると、1社あたり最大100万ユーロが報告されている。

110. I&P Europe によると、現時点で PFOA 関連物質の使用を完全に排除するための第一の障害は、まだ技術的なものである。しかし、研究開発費も、考慮に入れる必要がある。このような投資は、革新的な新しいデジタル・イメージング技術の創造に産業界が焦点を当てて

¹⁸ 農業、畜産、食糧供給、動物および植物保護事務局、農業省のインプット検査部門からの Oficio DFIA / SDA / MAPAn^o123/2008。

- いるとき、大きな財政負担となる可能性があるためである。PFOA 関連物質のわずかに残った写真関連用途のための代替に伴う経済的コストは、ほとんどの場合、法外なものになる。関連する残りの小さな用途は、IP ヨーロッパのメンバーが今後さらに衰退すると予想される市場におけるニッチな製品である(I&P Europe、2016b)。
- 111. EUでは、高コレステロール血症、発生毒性およびガンに関連する社会にはかなりの費用がかかることが示されている。これらの費用は、医療などの直接費用と、被災者の生活の質の低下などの間接的な費用によって明らかになるだろう。PFOA および PFOA 関連物質による疾病負担全体への寄与を見積もることはできなかった。しかし、大きなリスク特性比は、PFOA および PFOA 関連物質(ECHA、2015a)の制限による人の健康に大きな利益があることを意味する。ノルウェーの情報によれば、EUの社会経済的評価は、排出量を減らす理由から、残留性、生物蓄積性および毒性(PBT)特性に主に重点を置いていた。より最近の研究では、PFOA へのばく露とワクチンの効果の減少との相関が示されており、PFOA は人に対して免疫障害性があると推測されている(UNEP/POPS/POPRC.12/11/Add.2.2016)。
- 112. EUの規制は、欧州での経済的影響の拡大につながるとは考えられていない。なぜなら市場は、すでに PFOA および PFOA 関連物質の代替化に向けて発達しているためである。これは、中程度のコンプライアンス費用の見積もりに反映されている。さらに、この制限は EU と世界的な産業の競争力に影響を及ぼすとは考えられていない。なぜなら制約を順守するためには、PFOA と「PFOA 関連物質」の両方を代替する必要があるからである。この規制は、EU における雇用に大きな影響を与えるとは考えられていない(ECHA、2015a)。
- 113. 消防システムのような既存の製品に存在する PFOS の除去および破壊のコストは、個々のケースではるかに高くなる可能性があるが、概して 1,000 ユーロ/ kg 未満と推定される。一例は、オランダの Barendrecht 鉄道トンネルで、消火システムから PFOS を除去するために少なくとも 3,500 ユーロが費やされた。この操作では、第 2 回目の洗浄、あるいはメイン配管の交換が必要となり、完全な除去は達成されなかった。それには残りの PFOS キログラム当たり、さらに、少なくとも 40 万ユーロの費用がかかる。鉄道事業者はこれを行う必要はなく、この理由は明示されていなかった(Oosterhuis や、2017)が、費用は不相応とみなされたと解釈できる。
- 114. 規制のイニシアチブは、(他の物質の中でも)PFOAと長鎖のPFCAsの製造、使用、販売、販売のオファー、あるいは輸入に伴う危険から環境を保護する目的で、カナダの化学物質管理計画(CMP)の一環として策定された。カナダのリスク管理プロセスでは、科学的証拠により、PFOAと長鎖 PFCAs は持続性(持続性)であり、地上および海洋動物に蓄積し、生体内で濃縮され、環境に対して毒性があることをカナダ環境保護法 1999(CEPA)のもとで実証した。このイニシアチブの便益の定量的分析は行われていないが、カナダの PFOA および長鎖 PFCAs の規制管理は環境を保護するだろう。これらの物質の管理から、環境品質の向上が期待されている。
- 115. ノルウェーは、日常の環境(ノルウェー、2016年)において PFAS にさらされているため、規制措置が人の健康にプラスの影響を与えると述べている。 PFOA を含む消費者製品の数は減少し、全天候型衣類のレベルは、2013年に消費者製品に PFOA の国家規制が導入された後に減少している(RME 第 2 版に関するノルウェーのコメント)。
- 116. オーストラリアでは、PFOAの社会的影響は、液体燃料の火災に対処する空港や消防訓練施設での AFFF の歴史的使用によって汚染された、いくつかの場所が特定されたことで、表面化した。PFOA、PFOS および PFHxS を含む泡消火剤は、様々な用途において段階的に廃止されている。AFFF の旧来の使用は、いくつかの防衛および民間空港の場所を汚染した。いくつかの事例では地表水や地下水を通って元の場所から汚染が移動していることに留意されたい。PFOAの使用地点からの移動は、場合によっては人の消費および農業目的に使用された隣接地域における地表水および地下水の汚染をもたらした。飲料水が汚染されている場所では、代わりの飲料水の供給源が提供されている。ある農業活動、例えば、市場むけ菜園や小規模な養鶏や卵の生産などが影響を受けている。PFOAは以前、使用していた水を汚染している。汚染された環境に置かれているという汚名は、不動産や事業価値の低下、一部の土地や事業主の収入の減少につながっている。これは、次に、住民の健康への影響の不確実性によってさらに悪化した影響を受けている地域社会のストレスと不安のレベルにつながった。オーストラリアへの影響は PFOA を含む AFFF の旧来の使用によるものであるが、規制措置の実施は、現在または将来の汚染の可能性が最小限に抑えられていることをオーストラ

リアのコミュニティに保証する(Australia、2016)。2017年4月、ブリスベン空港でPFFFを含む2つの主要PFOA流出(22,000,5,000リットル)がブリスベン空港で発生し、地域の水路からの魚の摂取を避けるよう政府の警告を発するに至った(RMEN第2草稿に関するIPENのコメント)。オーストラリア連邦政府は、政府全体の対応策を策定しており、また、PFAS汚染を管理し、対応するためにオーストラリアの州および地域と協力して作業している(RME第2草稿に対するオーストラリアのコメント)。

117. PFOA の泡消火剤への継続的な使用は、人の健康および環境への害に加えて、関連する修復、補償および法的費用を伴い、全世界の軍事施設および空港を取り囲む地下水および土壌の汚染を継続する結果となる(Wang ら、2017 年、LaSalle、2016 年、上院外交、防衛貿易、2016 年、Air Services Australia、2016 年、Filipovic ら、2015 年、Houtz ら、2016 年)。 ノルウェーの消防隊周辺で PFAS によって汚染された地下水を浄化するための総費用の最近の計算は、トレーニングサイトごとに $3.5\sim5.5$ 百万ユーロが必要である。これらの数値には、泡消火剤からの PFAS によって汚染されたノルウェーのいくつかの空港で必要な地下水洗浄システムの投資と運用が含まれる。化学分析によると、PFOA は PFOS よりも高いレベルで地下水中に移動することが示されている(RME 第 3 草稿に関するノルウェーのコメント)。

118. 2005年には、飛行機墜落事故や消防訓練のために、PFAS を含む泡消火剤がドイツのデュッセルドルフ空港で使用された。PFAS (PFOA でもある)による、土壌汚染、地下水への浸出。近隣の2つの湖が汚染された PFAS を含む地下水は現在一般に公開されていないが、魚の摂取は禁止されている。2007年、デュッセルドルフの地方環境局は、デュッセルドルフの北部で高い PFAS レベルを発見した。次の数年に、デュッセルドルフ空港は主要な PFAS源であることが判明した。地下水の修復には何年も何十年もかかる。さらに、PFASで汚染された約3000トンの土壌が掘削され処分された。19ドイツの他の空港には、過去に訓練目的で AFFF を使用したことに起因する同様の PFC 汚染地域(例えば、ニュルンベルク空港など)がある。このような是正措置の費用は、ECHA、2015a(RME 第3草稿に関するドイツのコメント)で議論されている。

119. ドイツでは、廃棄物/汚泥の農業用地への(違法な)処分の結果を示す著しいケースが 1 つある。周囲の表層水に浸出した工業用汚泥 PFOA の処分と飲料水貯留層であるメーネ湖は汚染されていた(Skutlarek ら、2006、Wilhelm ら、2009、Wilhelm ら、2010、Hölzere ら、Hölzer ら、2008、Hölzer ら、2009を参照)。したがって、飲料水は含まれる PFOA のレベルが上昇していた。したがって人バイオモニタリング研究は、アルンズベルクに住む人々からの血液中の PFOA レベルが、異なる供給源からの飲料水を受けた近くの地域の住民に比べて高いことを示した。メディアからの情報によると、約 250 万ユーロの地下水の浄化費用は 2006 年以来発生している。浄化プラントは次の数年の内に運転され、操業費は年間約 100,000 ユーロ(RME 第 3 草稿に関するドイツのコメント)となる。 20

120. 飲料水中の PFAS の高レベルは、スウェーデンのいくつかの地方自治体で 2011 年以来 μ g/L の範囲で検出されている。ウプサラでの水の活性炭濾過処理で(年間費用百万ユーロ)、Ronne の新しい給水システムでは(年間費用 3 百万ユーロ)、(スウェーデン環境保護局、2016 年)のようにいくつかの地方自治体の PFAS 汚染に対処するためのコストが提供されている。消防訓練拠点はこの汚染の主な原因であることが示されており、場合によっては給水が閉鎖されている。地方自治体は、湖下流の汚染地域で捕獲された野生の魚をあまり頻繁に食べるべきではないという情報を公開している(Swedish Chemicals Agency、2013)。古い飛行場の近くの洞窟に由来する PFAS 含有水については、受水路に流出する前に洞窟から 150~200m³ の水を浄化するために炭素フィルターシステムが設置されている(Defoort ら、2012)。PFAS はまた、1,500 万人の住民と米国のいくつかの場所で飲料水を汚染している。しかしながら、カーボンフィルター・システムはすべての PFAS には機能しない(Wang ら、2017)。

¹⁹ 以下の URL を参照 https://www.dus.com/de-de/konzern/unternehmen/verantwortung/umweltschutz/gew%C3%A4sserschutz/grundwassersanierung.

²⁰ 訴訟(https://www.wp.de/staedte/altkreis-brilon/ruhrverband-klagt-im-pft-umweltskandal-auf-schadenersatz-id9731569. html)の結果によれば、費用は地域社会が負担しなければならない。

121. 専門家、技術者、保護繊維製品については、2013年のドイツの製造業者の売上高は60億ユーロに達した(VTB SWT、2016年、TM、2016年参照)。

122. 入手可能性や代替品(または代替物質)技術のコストのために、開発途上国のPFOAの代替品(または代替物質)技術のいくつかは、数年後に利用可能になるかもしれない。

2.3 代替物質(製品およびプロセス)に関する情報

2.3.1 代替物質の概要

123. 人および環境に対する長鎖パーフルオロアルキル酸(PFAAs)の影響に関する懸念から、これらの PFAAs およびそれらの前駆体は、代替物質と構造的に類似するフッ素化代替物質を含む他の物質によって多くの用途で置き換えられている。これらのフッ素化代替物質は、特に短鎖 PFAAs および官能化パーフルオロポリエーテル(PFPE)、特に、パーフルオロアルキル鎖の代わりパー・またはポリ・フルオロエーテル鎖に結合した酸性官能基を有するパー・またはポリ・フルオロエーテルカルボン酸(PFESA)およびパー・およびポリ・フルオロエーテルスルホン酸(PFESA)からなる。(Wang ら、

およびパー・およびボリ・フルオロエーテルスルホン酸 (PFESA) からなる。 (Wang ら、2015)。異なる産業部門の既知のフッ素化および非フッ素化代替物質の概要は、参考文献 (ECHA、2015a、表 C.1-1; UNEP/POPS/POPRC.13/INF/6、第3節および UNEP を参照)、2017)。

2.3.2 分野別の側面

124. 以下の項では、代替物質に関連する分野固有の側面について説明する。それにもかかわらず、特に代替物質のリスク(例えば、短鎖フッ素化物質)に関連するいくつかの側面は、単一の分野に割り当てることはできないが、それぞれの代替物質が関連するすべての分野に適用される。

A. フルオロポリマーの製造

官能化パーフルオロポリエーテル (PFPEs)

125. フルオロカウンシル1によれば、フルオロポリマー (FluoroCouncil、2016a) の製造において PFOA を置換するために使用される種々の代替品 (または代替物質) 重合処理助剤 (PPA) が存在する。

126. フルオロポリマー製造業者は、ポリテトラフルオロエチレン、過フッ素化エチレン・プロピレンコポリマー、パーフルオロアルコキシポリマーおよびある種のフルオロエラストマーの(エマルジョン)重合の補助プロセスとして、パーフルオロオクタン酸アンモニウムまたはナトリウム(APFO および NaPFO)を使用した。さらに、ポリフッ化ビニリデンの乳化重合において、パーフルオロノナン酸アンモニウム(APFN)を適用した(Prevedouros ら、2006)。ほとんどの生産者は独自の代替物質を開発している。市販されているフッ素化代替品は、3M/DyneonからのADONA($CF_3OCF_2CF_2CF_2CF_2COCF(CF_3COC-NH_4+; CAS No: 958445-44-8; Gordon, 2011), DuPontのGenXまたは<math>C_3$ 二量体塩 C_3 1($CF_3CF_2CF_2CF_2CF_2CF_3COC-NH_4+; CAS No: 62037-80-3; Du Pont, 2010), Solvay(Marchionni ら、2010; Pieri ら、2011; Spada と Kent、2011)からの環式またはポリマー官能化 PFPEs ならびに Asahi からの EEA-NH4 (<math>C_2F_5OC_2F_4OCF_2COC-NH_4+; CAS No: 908020-52-0; EFSA, 2011a)$ 。中国におけるフルオロポリマーの製造とフッ素化乳化剤フリーの水性乳化重合プロセスに重点を置いての、フルオロポリマー製造における PFOA の代替に関する追加情報は、FOEN、2017 の第 V 節にまとめられている。

127. EUの規制プロセス(ECHA、2015a、section C3)では、一般的により短いおよび/またはより少ないフッ素化されたエーテル部分(GenX、ADONA および EEA-NH₄)を有する 3 つの PFOA 代替物質が評価された。 C_3 二量体塩、ADONA および EEA-NH₄ は、PFOA を

 $^{^{21}}$ IUPAC 名: アンモニウム 2,3,3,3-テトラフルオロ-2-(ヘプタフルオロプロポキシ) - プロパノエート; CAS No:62037-80-3。

重合処理剤として使用するための代替物質として応用され、乳化剤として応用され、水相からの反応物および疎水相からの反応物がエマルジョン中で接触し、お互いに反応する (ECHA、2015a)。ECHAによると、ほとんどの関係者は、代替物質で製造されたフルオロポリマーと PFOAで製造されたフルオロポリマー (または関係者には違いがあるかどうかは分からない)と技術的な違いはないと述べている (ECHA、2015a)。フルオロポリマー製造業者は、EU公聴会の中で、代替物質 (ECHA、2015a)を応用する場合、生産コストは、0

から 20%まで増加したと述べている。この増加は、フルオロポリマーの1ユニットを製造するのに必要な代替物質の量が多くなるだけでなく、代替物質のコストが高くなるという結果である。下流側のユーザーの中には、PFOA から代替品に代えてコスト効果が生じなかったとの意見があった。

128. C_3 二量体塩の毒物動態学的データは、ほとんどまたは全く代謝を示さないが、迅速な排泄を示す。おそらく 2~7 日(マウス)、10~11 時間(サル)および 4~48 時間(ラット)以内に代謝されないことが明らかにされている。 C_3 二量体塩は、皮膚刺激性および眼損傷性に分類される。さらに、投与を繰り返した結果、雄マウスでは、肝臓の肥大および肝細胞の肥大ならびに肝細胞壊死が 0.5 mg/kg/日で生じた。発がん性に関して、<math>2年間のラットの

研究では、より高い用量(50 mg/kg/日以上)で腫瘍が得られた。 C_3 二量体塩に関連する環境リスク(登録書類から得たデータ)に関しては、その物質はおそらく急性毒性

(LC/EC₅₀>100mg/L) はなく、あるいは、水生生物に対しても慢性毒性 (NOEC>1mg/L) はないと結論づけた。入手可能なすべての情報に関して、欧州化学物質法 (ガイダンスについては ECHA、2017a を参照) に従った基準の永続性、生物蓄積性および毒性の評価を含む完全な PBT 評価は実施できない。しかし、登録者は、化学物質安全性報告書 (CSR) において、 C_3 二量体塩が反復 exposure(ばく露) (STOT RE 2) 後の特定の標的臓器毒性に基づいて P および T 基準を満たすことを認めている。 C_3 二量体塩は、欧州化学物質法の PBT 基準を満たす可能性が高い(REACH 附属書 XIII(ECHA、2015a)参照)。

- 129. ADONA に関しては、物質が残留性であることが判明した(持続性)。発がん性に関するデータは入手できなかった。ADONA に関連する環境リスク(データは REACH 規則の下で登録簿から得た)に関して、その物質はおそらく急性毒性(LC/EC50>100 mg/L)はなく、あるいは水生生物に対して慢性毒性(NOEC>1 mg/L)はないと結論づけた。利用可能なすべての情報に関して、完全な PBT 評価は実行でない。この物質はおそらく REACH 附属書 XIIIの P 基準を満たすだろう。環境毒性に関するデータに基づき、その物質は T 基準を満たさない。登録文書には、人に関連する毒物学的情報が欠けている。したがって、データは、物質の PBT 特性(ECHA、2015a)について結論をだすか、あるいは反論するかについて十分ではない。2011 年からの欧州食品安全機関の文書に基づいて、3M は、ADONA の排出半減期は 3 人の労働者の体から 12~34 日であると報告したが、PFOA の半分をクリアするのに約 4 年かかる(The Intercept、2016 および EFSA 2011b を参照)。
- 130. 別の研究(Gordon、2011)では、ADONA の急性および慢性毒性を、目および皮膚の刺激、皮膚感作性、遺伝毒性および発生毒性試験について最大 90 日間の反復投与試験で評価した。この物質は、ラットでペルオキシソーム増殖因子活性化受容体アルファ(PPAR α)アゴニストとして評価され、急性ラットの研究では中程度の経口毒性および事実上非毒性であると評価された。ADONA は、マウスの局所リンパ節アッセイにおいて、軽度の皮膚刺激性があっただけでなく、ウサギでは、軽度、中程度から重度の眼刺激性および皮膚感作性であることが判明した。5 つのアッセイからの証拠の重さに基づいて、ADONA は遺伝毒性とはみなされなかった。母体毒性投与を除いて発生毒性は認められなかった。PPAR α アゴニストとしての ADONA に関して、肝臓は雄ラットの主要標的器官であり、雌ラットでは腎臓であった。ADONA の毒性プロファイルは、PPA としての意図された使用で許容され、APFOよりも優れていると著者によって結論付けられた。
- 131. EEA-NH4は残留性と考えられている。提供されたデータは、生物蓄積性でないと結論付けるには不十分である(B)。EEA-NH4に関連する環境リスク(データは登録書類から得た)に関して、水生生物に対する急性毒性(LC/EC50>100 mg/L)は決定されなかった。利用可能なすべての情報に基づいて、PFOA-PBT評価からの知識を考慮した完全な PBT評価は実行できない。この物質はおそらく REACH 附属書 XIIIの P 基準を満たすだろう。環境毒性に関するデータに基づき、その物質は T 基準を満たさない。登録には、人の健康に関する毒性データが提供された。登録者は、その物質が生殖毒性カテゴリー2に分類されると指摘

している。従って、物質は附属書 XIII の T-基準を満たし、それは PBT である疑いが残る。 (ECHA, 2015a)。

132. 2つの PFECAs、GenX (ラットおよびマウス) および ADONA (ラットおよび人) の血清の排出半減期が報告された (ECHA、2014b; EFSA、2011b)。 PFOA の場合と比較して排出半減期が短かったとしても、PFECA および PFESA の生物蓄積性の可能性については、法規制では定量的な血清排出半減期閾値が規定されていないため、生物蓄積性の基準として、結論を導くことは不可能であったと考えられた。 種間変異は解明されておらず、研究はしばしば異なる投与方法 (例えば、経口対静脈内、単一対反復投与) で行われた。結果として、物質間の報告された血清排出半減期を直接比較することはできない (Wang ら、2015)。

B. 繊維およびカーペット・セクター

133. 織物仕上げのためのフッ素化および非フッ素化耐久撥水化 (DWR) 化学品の特性、性能および関連する危険性が最近、見直された (Holmquist ら、2016)。 以下の節項で個々の化学の概要を示す。

短鎖フッ素化代替物質

134. 長鎖の等価物に代わる短鎖フルオロテロマーベースの物質は、とりわけ繊維やカーペットの用途を含む様々な用途の代替物質として特定されている(USEPA、2012)。

135. 非フッ素化炭素主鎖および PFOSF から誘導された 6:2-14:2 フルオロテロマー部分または部分の混合物を含有する側鎖を含む側鎖フッ素化ポリマーを表面処理製品に使用した。それは、繊維、革、カーペットに耐水性と耐油性を与えるものである(Buck ら、2011)。側鎖上の長鎖フルオロテロマーまたは PFOSF に基づく誘導体を置換するために、より短鎖の同族体を使用する傾向が見られる(Ritter、2010)。パーフルオロブタンスルホニルフルオライド(PBSF)から誘導された C_4 側鎖フッ素化ポリマーを含むいくつかの表面処理製品が商品化されている(Renner、2006)。さらに、6:2 フルオロテロマーおよびオルガノシロキサン(Dow Corning、2007)由来のコポリマーを含む、高度に精製されたフルオロテロマー原料(主に 6:2)をベースとする製品は、フルオロテロマー製造業者(Ritter、2010)によって開発されている。短鎖ポリフルオロアルキルアルコール、例えば 3:1 および 5:1 フルオロテロマーアルコール(FTOH)が市販されており、側鎖フッ素化ポリマーの構築ブロック剤として使用することができる(Wang ら、2013)。

136. 汚れ防止と撥水性に使用される PFOA 関連物質 の化学的代替品が入手可能であり、アクリレート、メタクリレートアジペートおよびウレタンポリマーに基づく繊維およびカーペット表面処理用途が含まれる。短鎖 PFAS に関しては、ポリマーを含む PBSF ベースおよび 6:2 フルオロテロマーベースの物質が応用されている。さまざまな科学的研究と、国際的な科学的コンセンサス声明であるマドリード声明(マドリード声明、2015)によれば、これらの化合物は、残留性と生物蓄積性に関する懸念を引き起こした。POPRC 代替ガイダンス文書 UNEP/POPS/POPRC.13 / INF/6;第3章参照)に概説された基準を考慮して、そしてこれらは代替物質として受け入れ可能ではない。

137. $\leq C_6$ ベースのフルオロテロマー化学に基づく化合物は、フルオロテロマーベースの生成物を製造するために使用され、この代替物の技術的実現可能性を示している代替品(または代替物質)。同じ技術的性能を達成するためには、より大きな体積を適用しなければならず、 $\leq C_6$ ベースのフルオロテロマー製品のコストはより高い(ECHA、2015a)。

138. 8:2 フルオロテロマーアルコール (8:2 FTOH) に基づくフルオロテロマー製品では、短鎖 6:2 FTOH が alternative(代替品(または代替物質))として使用される。この物質は PFOA に分解するのではなく、むしろ他の酸類、例えば、パーフルオロブタン酸(PFBA)、パーフルオロペンタン酸(PFPeA)、パーフルオロヘキサン酸(PFHxA)、および 2H、2H、3H、3H-ウンデカフルオロオクタン酸(5:3 フルオロテロマー酸)(ECHA、2015a)などである。別の研究(Ellis ら、2004)によれば、パーフルオロヘプタン酸(PFHpA)は 6:2 FTOH の大気分解でも形成され、PFHpA および PFHxA は 6:2 FTOH の大気酸化の際に最も豊富に生成される PFCAs であると述べている。土壌に結合した残渣では、5:3 の酸はそれ以上の生分解に利用できない可能性がある(Liu ら、2010a; Liu ら、2010b)。活性汚泥中では、6:2 の FTOH も迅速な一次生体内変換を受け、6:2 の FTOH の 97%以上が 3 日以内に少なくとも 9 つの転換生成物に変換され得る。主な生体内変換生成物には、5:3 の酸、

PFHxA、および PFPeA が含まれる(Zhao ら、2013b)。同様の生体内変換生成物は、好気性河川堆積物システム(Zhao ら、2013a)を用いた研究でも見出された。6:2 フルオロテロマーの変換/分解に関するさらなる情報は、FOEN の第 II 節(2017)に見出すことができる。

フルオロカウンシルが支援する研究の公表されたデータならびに未公開のデータを考 139. 慮すれば、PFOA(6:2 FTOH、PFHxA/PFHx、6:2メタクリレート、6:2アクリレート) のフッ素化された代替物質は、ストックホルム条約全体の POPs 基準を満たしていない。こ の研究では、6:2 FTOH がストックホルム条約の POP 基準の1つを満たしていると結論づ けた。(大気輸送に基づく基準を満たしているが、附属書D第1項(d)に従って、遠隔環 境の濃度が懸念される可能性があるか場合、追加情報が必要である、(i) 残留性、生物蓄 積性、生態毒性、人に対する毒性などの基準は満たされていないなど)。PFHxAとその陰 イオン PFHx は、土壌、流送土砂および水中の PFHxA の分解半減期に関するデータは入手 できないが、環境的に残留)である可能性が高いため、残留性の基準を満たす。生物蓄積、 長期環境輸送、生態毒性および人に対する毒性の基準は満たされていない(FluoroCouncil、 2014a)。最近発表された以前の評価に基づく新しい報告は、新たに発表された研究を考慮 し、分析された短鎖 PFAS (6:2 FTOH、PFHxA/PFHx、6:2 メタクリレートおよび 6:2 アクリレート) のどれもがストックホルム 条約の POP 基準(FluoroCouncil、2016b)を満た していないという一次的結論を支持している。それにもかかわらず、代替物質および代替品 (または代替物質)混合物は、そのような物質を適切な代替物質とみなす前に評価すべき有 害な特性を示す可能性がある。

140. 短鎖化学に関するリスクは、(ECHA、2015a)の C.2.2 節()の健康リスク)および C.2.3 節(環境リスク)に詳述されている。いくつかの研究(Lindeman ら、2012; Maras ら、2006; Martin ら、2009; Mukerji ら、2015; Oda ら、2007; Ishibashi ら、2007; Vanparys ら、2006; すべて ECHA、2015a で引用)に基づ 6:2 FTOH に関連する主な知見 は、この Risk management evaluation(リスク管理評価(書)) の背景文書(UNEP/POPS/POPRC.13/INF/6; 第 4 節)に概説してある。短鎖 PFAS に関するさらなる利用可能な研究は、フルオロカウンシルによってまとめられている。 22

141. 6:2 FTOH は生体内変換を受け、 $3\sim5$ 個のフッ素化炭素原子を含む PFCAs を生じる。これらの PFCA は PFOA と構造的に類似しており、フッ素化された炭素原子の数のみが異なる。これらの短鎖 PFCA は環境中で残留性 であり、生物的または非生物的条件下でさらに分解することはできない(ECHA、2015a)。しかしながら、7未満のフッ素化炭素を有する PFCAs の生物蓄積性能力は、PFOA のそれよりも低いと期待されている(Conder ら、2008)。

142. PFOA (ECHA 2015a) と比較して、6:2 FTOH の代謝産物は残留性であり、野生生物および人において生物蓄積の能力が低く、水生生物への毒性が低いと予想される。しかし、短鎖 PFCA は水性環境下で PFOA より移動性が高く、飲料水を汚染する可能性がある (Eschauzier ら、2013; Gellrich ら、2012)。また、それらは野菜に蓄積する可能性があり、これは別のばく露経路になる可能性がある (Krippner ら、2015; Blaine ら、2014)。別の研究の結果は、フルオロテロマーカルボン酸が、対応する PFCAs と比較して、水生無脊椎動物および植物種に対してより急性毒性があることを示している (Mitchell ら、2011)。しかし、環境中濃度は、PFOA とその塩および PFOA 関連物質の段階的廃止により、特に多量に使用された場合、時間とともに変化する可能性があると考えられるべきである。

143. 以下を含む PFOA に対する多数のフッ素化された化学的代替物質の適合性に関する懸念が高まる; PFHxS、PFHpA、PFHxA、PFBS、PFBA、4:2FTOH、6:2FTOH、6:2 フルオロテロマー酸(6:2FTA)および 6:2 フルオロテロマースルホネート(6:2FTS)。 PFHxS はその非常に高い残留性 および生物蓄積性(vPvB)のために、最近、EU 加盟国によって非常に懸念される物質(SVHC)のリスト(ECHA、2017b)に満場一致で追加された。さらにノルウェーは最近、ストックホルム条約への追加のために PFHxS を指定した。これらの特徴は、第3条第3項及び第4項の実施に関する懸念を生じさせる。これらの代替物質の悪影響に関連する具体的な情報および対応する参考文献が利用可能である(UNEP/POPS/POPRC.13/INF/6;第5節)。

-

²² 以下の URL を参照。 https://fluorocouncil.com/Resources/Research.

非フッ素含有代替物質

- 144. 繊維業界 (VTB SWT、2016) の代表者によれば、パラフィン、アルファオレフィン変性シロキサン、脂肪酸変性メラミン樹脂および脂肪酸変性ポリウレタンを含む非フッ素含有代替物質は、低レベルの撥水性を持つ標準および屋外用衣類用に存在する (VTB SWT、2016)。フッ素フリー代替物質を応用するいくつかの場合、以下の理由で専門的、技術的および保護用繊維品の品質要求を満たすことができない;例えば、化学物質忌避、撥油性および/または汚れ忌避の欠如、不十分な耐擦過性および/または特に工業的、化学洗浄の応用における耐洗濯性、乾いた土壌の忌避、対候性の欠如、ならびに、紫外線安定性、呼吸用フィルタの閉塞(例えば、短い洗浄サイクル後の防護衣類における)のため、あるいはそれ以上の処理に関連する限定的対策 (VTB SWT、2016) のために、
- 145. 織物用のフルオロカーボンフリーの撥水性仕上げ剤には、Geretsried/Germany の Rudolf Chemie Ltd.によって市販されている BIONIC-FINISH®ECO および RUCO-DRY®ECO などの市販品; Weinheim/Germany の Freudenberg Group が販売する Purtex®WR、Purtex®WA、Purtex®AP、 Sevelen/Switzerland の SchoellerTechologies AG(2014 年ストックホルム条約)が 販売する ecorepel®がある。
- 146. 撥水剤の特性に関しては、高度にフッ素化された物質の代わりに応用できるいくつかの物質があるが、グリース忌避剤および撥油剤の代替品はまれである。最も顕著な撥水代替剤はシリコーン系の薬剤である。これらには、高分子量ポリジメチルシロキサン(PDMS)、シリコーンとステアラミドメチルピリジンクロライドとの混合物(時にはカルバミド(尿素)とメラミン樹脂と組み合わせたもの)、ワックスおよびパラフィン(通常は変性メラミンベース樹脂からなる)および 蓮の花が水を追い払う能力を模倣して開発されデンドリマーが含まれる。(Swedish Chemicals Agency、2015)。
- 147. パラフィン忌避剤は、生産者によれば、健康に有害であると分類されるべきではない液体エマルジョンである。しかし、特定された成分のいくつかは有害であるようである。ほとんどの製品の主な成分はパラフィン油/ワックス(長鎖アルカンの混合物)であり、純粋な形では、無害であると考えられている。一部の製品には、イソシアネート、ジプロピレングリコール、金属塩、または有害である可能性のあるその他の未知の物質も含まれている。大部分の成分は容易に生分解性であり、生物および食品連鎖において生物濃縮または蓄積することはなく、水溶性以上の濃度であっても水生生物および陸生生物に対する毒性はわずかである(Danish EPA、2015b)。
- 148. 繊維含浸剤に適用されるほとんどのシリコーンは、不活性で一般に有害作用を有しない PDMS に基づいている。様々なシロキサン、特に D4、D5 および D6 として知られている環状シロキサンおよび特定の線状シロキサンは、繊維含浸に使用されるシリコーンポリマーの合成のための中間体である。シロキサンは(残留性であり、環境中に広く存在する。主に、それらは都市部領域および水生環境で検出される。下水処理場の出口付近で捕獲された魚の肝臓では、高いレベルが認められている。シロキサンは、一般に、沈降によって水相から除去され、沈殿物中で長い半減期を示す。土壌では、シロキサンは条件に依存して、依然として(残留性であるかもしれない水酸化型に変換される(Danish EPA、2015b;さらに詳細な情報は、また P05、2012 および Davies、2014 を参照)。カナダでは、D4 が量または濃度で、環境またはその生物多様性に即時または長期の有害な影響を及ぼす、または有する可能性のある条件下で環境に進入していると結論付けられている。
- 149. デンドリマーベースの忌避剤に関しては、活性物質および他の成分の健康特性に関するデータはないが、市販製品の生産者は MSDS に健康データを提供し、製品の分類のためのいくつかの提案を行った。生産者からの情報によると、これらの製品は環境に有害であると分類されるべきではないが、入手可能な情報に基づいてこれらの記述を評価することはできない (Danish EPA、2015b)。製品の組成は、評価用には十分に特定されていない。しかし、製品のいくつかには、未知のシロキサン、陽イオン性ポリマー、イソシアネート、または刺激性有機酸が含まれる。要約すると、この化学物質グループの健康評価情報は、含浸剤の健康への影響を評価するには不十分である(詳細は P05、2012 および Davies、2014 も参照)。
- 150. 最近の研究では、フッ素化されていない化学物質の代替物質は、アウトドア用衣料品の撥水性要件を満たすことができると指摘されている。著者らは、アウトドア用衣料品用のPFAS 化学物質の使用が過剰性能であり、アウトドア用衣料品を非フッ素化化学物質に切り

替えることにより、有意義な環境毒物学の点から利益を達成することができると提案している (Hill ら、2017)。

非化学的代替品

- 151. 繊維製品に関しては、密着した織物が非化学技術による代替品(または代替物質)の一つである。別の技術は、ポリマー材料でできた非常に薄いフィルムから成り、液体形態では水に対して非常に不透過性であるが、通気性の織物に通じる水蒸気に対して透過性であるように構成された、いわゆる逆浸透膜である。PTFEの代替品(または代替物質)は、疎水性ポリエステルと微細構造を形成する親水性ポリマーとの複合物であり、布地が呼吸することを可能にする(Swedish Chemicals Agency、2015)。
- 152. スウェーデン化学品監督局(Swedish Chemicals Agency)は、フッ素を含まない代替物質を見つけるための国際的イニシアチブの一例を提示している(Swedish Chemicals Agency、2015)。繊維業界向けの染料およびその他の化学物質の世界的供給者である Huntsman Textile Effects は、デュポンと協力して、撥水特性を備えた新製品の開発を目指している。企業から提供された情報に基づき、これは再生可能な材料からなるセクターの最初の撥水処理剤であり、その 63%が植物由来原料から得られている(Ecotextile News、2015;スウェーデン化学品監督局が引用、2015)。製造業者によれば、この仕上げは、既存の非フッ素化忌避剤より 3 倍までの耐久性があり、最大の快適性のために布の通気性を維持する。一般的な仕上げ補助剤(樹脂と架橋剤を含む)と互換性が良く、遺伝子組換え生物で作られていない(Chemours、2017)。
- 153. Pyua 社はフルオロカーボンフリーの技術 (CLIMALOOPTM) を開発し、不透過性、通気性、および風不透過性に関して最高の性能を約束している。この技術は、リサイクルされた材料をベースにしており、長期間の耐久性のある屋外用途向けに開発されている。さらに、各 Pyua 製品は完全にリサイクル可能であり、生態学的および社会的に持続可能な方法で生産されている (Pyua、2017)。

C. 泡消火剤

短鎖フッ素化代替物質

- 154. ここ数年間、フルオロテロマーベースの AFFF の製造業者は、長鎖フッ素化界面活性 剤を短鎖フッ素化界面活性剤(UNEP、2017)に置き換えている。主に 6:2 および 8:2 フルオロテロマーの混合物に基づく初期製品を代替するために、純粋な 6:2 フルオロテロマーに基づく AFFF が開発された(Klein、2012; Kleiner と Jho、2009)。例えば、デュポン社は 6:2 フルオロテロマースルホンアミドアルキルベタイン(6:2FTAB)または 6:2 フルオロテロマースルホンアミドアルキルベタイン(6:2FTAB)または 6:2 フルオロテロマースルホンアミドオキサイド(Wang ら、2013)に基づく 2つの AFFF を商品化した。供給業者が提供する短鎖フルオロテロマー系界面活性剤のポートフォリオには、Chemguard、Chemours および Dynax(UNEP、2017)が含まれる。
- 155. 化学的代替物質には、6:2フルオロテロメマースルホニルベタインなどの C_6 フルオロテロマー類、時には炭化水素と 3M 製品のドデカフルオロ-2-メチルペンタン-3-オンが結合される。環境への物質の直接放出と北極圏、人ならびに野生生物を含む環境での C_6 化合物の検出は、このようなフッ素化代替物質の使用は望ましくないとした (UNEP/POPS/POPRC.13/INF/6を参照) (IPEN、2016)。

非フッ素含有代替物質

156. スウェーデンの市場には、代替品(または代替物質)の技術的実現可能性を示す様々なフッ素を含まないクラス B 泡剤がある。泡消火剤 Moussoll-FF 3/6 はスウェーデンの空港で導入され、環境中で二酸化炭素と水に分解された。高い安全基準が満たされなければならない空港で必要とされる消火において有効であると考えられる。Arlanda と Landvetter を含む10のスウェーデンの空港を所有する Swedavia は、以前はフッ素ベースの泡消火剤を使用していましたが、2011 年 6 月にフッ素フリーの代替品(または代替物質)に切り替えた。スウェーデン軍は、2011 年にスウェーデンの泡消火剤に過フッ素化物質の使用を段階的に廃止し始めた。現在、スウェーデン軍は、フルオロテロマーベースの泡消火剤、すなわち過フッ素化物質に分解された物質を使用している(詳細は Swedish Chemicals Agency、2015 参照)。ノルウェーの空港、軍事施設およびいくつかのオフショア企業では、フッ素フリー泡消火剤も導入されている(RME の第 3 草稿に関するノルウェーのコメント)。

157. 泡消火剤に関しては、フッ素フリー代替品のコストがフッ素系界面活性剤泡消火剤のコストよりも約5~10%高いとの推定を示す研究(RPA、2004)がある。フッ素フリー代替品の製造業者から提供された情報に基づくと、市場規模が拡大した場合にはコストが下がる(Poulsenら、2005)。この研究では、地下水浄化、水生環境の汚染、零細商業漁業者の救済費用、環境および公衆衛生の費用を含むフッ素系界面活性剤泡消火剤の継続的な依存に内在化する費用は考慮されていない(RME第2草稿に関するIPENのコメント)。AFFF、フルオロタンパク質(FP)、またはフィルム形成性フルオロタンパク質(FFFP)を使用する生涯コストは、フッ素フリーの泡消火剤をはるかに上回る。なぜなら、それは、単にフルオロケミカルベースの泡消火剤を使用することの法的および財政的責任のためによる。

(Queensland Gov., 2016a および 2016b を参照)。上述のように、操業免許の条件を侵害すること、風評、ブランドイメージのダメージを含む(Klein 2013 を参照)。証拠が増えつつあることは、農業、漁業、不動産価格に影響を及ぼす現に起こっている重大な問題である地下水のフルオロケミカル汚染は、相当に政治的および社会的な懸念が起こり、莫大な費用と損害を伴う法的な問題という結果となることを示唆している。AFFF、FPまたはFFFPからのフッ素化分解生成物による環境汚染の場合には、分析およびコンサルタント費用が高いため、修復費用は依然として、特にオフサイトでは、かなりの金額になる(例えば、Klein、2013参照)。

- 158. ストックホルム POPs 条約 (UNEP、2017) に基づく PFOS および関連する化学物質の使用に関する BAT / BEP ガイダンスは、フッ素化されていない泡消火剤が存在し、使用されていることを確認している。 オーストラリアのクイーンズランド州政府が行ったレビューによれば、多くのフッ素を含まない泡消火剤は、消防基準の中で最も厳しい条件を満たし、様々な状況でフィルムを形成するフッ素化泡消火剤の性能を超えると認められ、フッ素フリーの泡消火剤は空港や 石油やガスのプラットフォームを含むその他の施設で広く用いられている(Queensland Gov., 2016b を参照)。スウェーデン軍によれば、特定の安全要件を満たすフッ素フリー代替品を見つけることは困難である。(Swedish Chemicals Agency, 2016 参照)。
- 製造者および一部のユーザーは、フッ素フリー泡消火剤は、フッ素系界面活性剤を含 む泡消火剤と同等の消火効果を持たないことを述べている。フッ素系の泡消火剤と比較して、 液体の火災消火時には約2倍の水と泡濃縮物が必要である。ある分析では、フッ素フリー泡 消火剤は、再着火に対する防護が小さくなる可能性があることが確認されているため、一部 の作業に alternative(代替品(または代替物質))を適用することは不可能である。(Swedish Chemicals Agency、2015)。 泡消火連合(FFFC)によれば、フルオロテロマーベースのフッ 素系界面活性剤を含有する AFFF 剤は、現在、軍事、工業、航空および地方自治体での応用 において可燃性液体火災を消火するのに最も有効な泡消火剤である。米国海軍研究所(NRL) (NRL、2016) によって提供された試験データは、プール火災試験において、AFFF 剤がフ ッ素フリー泡消火剤と比較して、フッ素フリー泡消火剤が40秒を要したのに対して18秒で 消火を達成したことを示した。泡分解試験では、フッ素フリー泡剤は1~2分後に分解した が、AFFF は分解されるまでに 35 分間を要した。FFFC は、AFFF 剤がもはや必要とされない という意見を支持しておらず、ただし、可燃性液体の著しい危険性が発生し、特定の状況の 場合においてのみ AFFF の使用を推奨する。AFFF 剤を使用する場合には、排出を可能な限 り最小のレベルにするため利用可能なすべての対策が実施するものとする(FFFC、2017)。 しかし、フッ素フリー泡消火剤と試験した2つのAFFFとの間では、閉塞因子(すなわち、 蒸気抑制) は区別できなかった (Williams ら、2011)。世界中の空港やオフショア企業は、 フッ素フリー泡消火剤を導入しており、その性能に満足している。
- 160. スペインの泡消火剤製造業者は、市販の短鎖(C6)AFFF剤 5 種類と市販のフッ素フリー泡消火剤 5 種類(4 種類のガソリン燃料、ヘプタン、ジェット A1 およびディーゼルを使用して試験を実施した)について行った一連の新しい火災試験の結果を公表した(Wilson、2016)。短鎖 AFFF 泡消火剤は、ディーゼルを除くすべての燃料でフッ素フリー泡消火剤と比較して著しく良好な性能を発揮したことが示された。どのフッ素フリー泡消火剤も、ジェット A1 火災(国際民間航空機関(ICAO)で用いられている燃料)を消火することができなかった。この火災テストで多くの国の空港での泡消火剤を使用するための受け入れ可能性を決定する(FFFC、2017)。しかし、様々な ICAO レベル(民間空港での使用に必要)で認証されたフッ素フリー泡消火剤は市場で入手可能であり(FFFP、2017 参照)、実際、すでに空港で導入されている。(上記参照)。

161. ドイツの火災および災害対策研究所 Heyrothsberge は、5つの異なる極性液体の火災を消火する能力のために、6つのフッ素フリー耐アルコール泡消火剤および1つの PFAS を含む泡消火剤を試験した。著者らは、PFAS含有泡消火剤(Keutel and Koch、2016参照)と比較して同等の性能を示すフッ素フリー泡消火剤が利用可能であると結論付けている。

D. 紙および食品包装

短鎖フッ素化代替物質

162. 6:2フルオロテロマーをベースにした製品は、長鎖フルオロテロマー誘導体(Loi et al。、2013)を基にした側鎖フッ素化ポリマーやリン酸ジエステルなどの初期製品の代替を目指して、フルオロテロマーメーカーによって開発された。例えば、いくつかの6:2フルオロテロマーベースの側鎖フッ素化ポリマーが、米国食品医薬品局(FDA)の有効食物接触物質(FCS)通知目録に登録されている。例、Asahi または Daikin の製品(Wang ら、2013)。しかし、IPEN から提出された情報によれば、毒性および POPs の特性に関する公に利用可能な情報が不足している。

163. 世界の特殊化学品メーカーの1つは、2015年に、紙とボール紙に優れた耐油性、耐グリース性、耐水性にを提供する PFOA を含まない添加剤に対して米国食品医薬品局 (FDA) は食品接触承認を与えた。添加剤はまた、紙やボール紙の表面清澄剤およびコーティング剤としての推奨または使用に適合しており、食品接触用途に意図されている。この添加剤は、陽イオン性の6:2フルオロテロマーベースの側鎖フッ素化ポリマーをベースにしており、グリースと水の両方に対して強く、長持ちするバリアを提供する。製造業者によれば、その性能特性および環境プロファイルのために、添加剤は、ファーストフードボックスおよびラッパー、スープキューブボックス、バターラップおよびオイルボトルラベルを製造するためのサイズプレスおよびウェットエンド用途の両方の用途に特に適していると考えられる。それは、成形パルププレートおよびカップの製造およびペットフードパッケージング(AMR、2015)にも使用することができる。

164. FDA は現在、食品包装用途に長鎖フッ素化物質の使用を許可していない。FDA は、2016年に21 CFR 176.170 から最後のレガシーである長鎖 PFOA 関連物質を除いた(81 Fed. Reg. 5-8 参照)。紙とボール紙に塗布された耐久性コーティングのすべての 2015 年の FDA 認可は、短鎖代替品 alternative(代替品(または代替物質))のためのものであり、食品接触通知(FCN)プロセスを通じて行われたであろう。

非フッ素含有代替物質

165. ノルウェーの少なくとも 1つのメーカーは、グリースの通過を防止する高密度紙を用いてフッ素フリー代替品 alternative(代替品(または代替物質))を開発した。(Swedish Chemicals Agency、2015)。ノルウェーの製紙会社 Nordic Paper は、紙を通したグリースの漏れを防ぐ persistent(残留性)学物質、超高密度紙を使用せずに機械加工を使用している。 23

166. 詳細は、Norden 2013、SFT 2007、Nordic Ecolabelling 2014で入手できる。Nordic Ecolabelling 2014は、含浸およびコーティング紙がデンプン、アルギン酸塩、CMC(カルボキシメチルセルロース)、クロム化合物、フッ化物化学物質またはシリコーンを用いて表面処理され得ることを示している。有機スズ化合物は、グリース耐性紙のシリコーンコーティングにおける触媒として使用され、紙と接触して食品に移動することがある。ブチル錫が紙の中の触媒として特に言及されている。Ecolabelには、クロム、フッ化物化合物の存在を阻止するための要件が含まれているが、溶媒ベースの塗装/コーティング剤、D4 および D5 および有機スズ触媒はシリコーン処理に使用できない。これらの物質はまだ他の場所で使用されており、ヨーロッパに輸入される可能性がある。

167. ドイツの BfR (BundesinstitutfürRisikobewertung) は、フッ素系および非フッ素系物質を含む食品接触材料に関する推奨事項に関するデータベースを維持している。²⁴

²³ 2009 年のノルウェー公害防止局(旧 StatensForurensningstilsyn)の情報。

²⁴ https://bfr.ble.de/kse/faces/DBEmpfehlung_en.jsp.

2.3.3 使用されているものすべてに対する代替品が現在特定されないときの使用

A. 高性能を要求される技術繊維製品

168. 業界団体は、特に、専門家、技術ならびに保護用繊維製品およびその他の高度な繊維製品(例えば、電子モビリティ・イノベーションのための燃料電池セパレータ)の分野において、法的要件および顧客による高い要求を満たす代替物質は現在入手できないと指摘した。しかし、以前は PFOA 関連物質で処理されていた低性能要件(例えば、標準的な衣類、標準的な屋外用繊維製品)のみを満たす必要があるこれらの繊維製品は、 C_6 製品または フッ素フリー代替物質(VTB SWT、2016; Euratex、2016)でも認められる。

169. 関係者は、 C_6 -化学物質で仕上げられた保護繊維製品は、高い安全基準を満たすために、大量の $_6$ -生成物を必要とする初期仕上げを要し、さらに洗濯のたびに、 C_6 -製品を繰り返し専門レベルの再含浸する必要があると述べている。これは、 C_8 化学物質(VTB SWT、2016)と比較して、使用される化学物質の量が多いため、PFAS の追加排出という結果となる。この文脈では、6:2 フルオロテロマーベースの仕上げ剤で処理された技術繊維品は、ライフサイクルに渡り、 C_8 -化学物質(Euratex、2016)を用いた観察された排出と比較してPFAS の合計排出量が $4\sim8$ 倍多いと述べられている。

170. 繊維業界は、 C_8 -化学物質が危険な液体や塵埃の忌避性に関連して、高い要求を満たすことができるが、難燃性に軽微な悪影響を及ぼすと報告した。この2つの効果の好ましい組み合わせは、 C_6 -ベースの製品では得られない。さらに、技術的保護繊維製品は、労働者が液体または危険物質(例えば、感染性液体)によって汚染されないように保護すると述べられている。したがって、必要な再含浸を怠った場合に、経時的な保護性能の低下(VTB SWT、2016)、(TM、2016)により、重大な健康問題が生じる可能性がある。

B. イメージングおよび印刷業界

171. I&P Europe によると、PFOA 関連物質 は、非パーフルオロ化学物質、短鎖(C_3 - C_4)パーフルオロ鎖を有する化学物質、テロマーおよび再処方により成功裏に置き換えられた。しかしながら、少数の関連する用途が残っている。PFOA 関連物質は、いくつかの残りの従来の写真製品(すなわち、画像形成がハロゲン化銀技術に基づく製品)の製造中のコーティング層の塗布に必要であると考えられる。界面活性剤、静電気防止剤(従業員の怪我、作業器具や製品の損傷、火災や爆発の危険(I&P Europe、2016b)の防止に重要)、塗装作業中の汚れ防止剤、摩擦調整剤、塗装層の接着制御などがある。 写真性能(I&P Europe、2016a)に悪影響を及ぼすことなく、I 種類の分子中にこれらの特性をすべて組み合わせるので、ユニークであると考えられる。

172. 印刷および印刷業界における PFOA 関連物質の残った関連使用の置き換えに関する費用の見積もりはできない。イメージング・コーティングの処方は占有権であり、会社ごとに、また製品ごとに異なる。したがって、各社は、処方組成を変更する際に異なるコストを特定する。これには、研究開発に関して数年かかる可能性がある(代替物質の開発時に評価されるだけでなく、環境、健康および安全の問題も評価される)。イメージングおよび写真分野における、重要な用途関連のわずかに残る PFOA 関連物質の代替に関連する経済的費用は、業界にとっては法外なものである。残りの重要な用途は、I&P Europe のメンバーが縮小する予定の市場ではニッチ製品として記述されている(I&P Europe、2016a)。

C. 半導体業界

173. 非 PFOA ベースの代替物質は、界面活性剤としての用途などのいくつかの用途のために、半導体産業で利用可能であるようである。しかし、プロセス中の構成材料としての PFOA 関連物質、(例えば、フォトリソグラフィー用途のための)非常に特殊化された応用ステップのための化学的配合物についてのいくつかの用途が残っている。2010 年の研究では、フォトリソグラフィーに PFOA を使用している企業にとっては、生産を継続できるようにするために特例が必要になることが判明した(van der Putte ら、2010)。半導体業界の代表者によれば、一部のアプリケーションの代替品は入手できない場合があり、代替品を商業生産に導入する前に代替品の識別、テスト、適格性確認に多大な時間を要する。移行に必要な特段の時間枠は示されていない(SIA、2017参照)。期間限定適用除外は、半導体製造プロセスにおける適切な代替品への移行を継続するのに必要な時間を提供することができる。

SEMI はさらに、この適用除外は受け入れ可能な目的の形をとるべきであると述べている (SEMI、2017 参照)。

D. スルフラミドの使用

174. 現在、ブラジルに登録されている、ハキリアリを防除するための餌の有効成分は、スルフラミド、フィプロニルおよびクロルピリホスである。昆虫の餌としてのクロルピリホスは、もはやブラジルではハキリアリの防除のためには(UNEP/POPS/POPRC.12/INF/15/Rev.1)使用されていない。これらの物質の有効性は疑問視されている。 従って、ブラジルでは新しい代替物質が研究されている。ブラジルの附属書 F 情報によれば、同じ目的のためにブラジルで登録・商品化された他どんな製品も(UNEP/POPS/POPRC.12/INF/15/Rev.1、UNEP/POPS/COP.7)/INF/21)現時点では、スルフラミドを、効果的には置き換えることができない。

175. ブラジルによれば、フェノキシカルブ、ピリプロキシフェン、ジフルベンズロン、テフルズブロン、silaneafone、チジアズロン、テフルロン、プロドロン、アバメクチン、メトプレン、ヒドラメチルノン、ホウ酸、ネオニコチノイド、ピレスロイド、スピノシンなどの殺虫剤は、(UNEP / POPS / POPRC.12 / INF / 15 / Rev.1)をハキリアリに対して試験したが、効果はなかった。

176. SC-6/7 の決定によれば、ブラジルは、PFOS とその塩類ならびに PFOSF および関連する化学物質の代替物質を総合的な有害生物管理アプローチの中での使用することに対する実現可能性に関する査読された情報を得るための研究を行い事務局に情報を提出することにする。この研究は、技術的実現可能性、人および環境効果、費用対効果、利用可能性および実行可能性に基づいて、ハキリアリを防除するためにスルフラミドを代替する代替物質がないと結論した(Brazil from Information、2016)。 25

177. これらの巻に関する情報は UNEP/POPS/POPRC.12/INF/15/Rev.1 に含まれている。スルフラミドが PFOA に分解し、PFOA の前駆体のリストにあることを示すいくつかの報告があることが指摘された (UNEP/POPS/POPRC.13/INF/6/ Add.1)。

2.3.4 代替物質の要約

178. 以下の項では、2.3.1 節から 2.3.3 節までの代替物質に関する情報を要約している。

短鎖フッ素化代替物質に関連するリスクの概要

179. 短鎖 PFAS により示される健康および環境のリスクに関して、欧州の当局間で懸念が高まっている。これらの懸念は、その残留性、水および土壌における高い移動性およびこれらの物質の潜在的な毒性のためである。短鎖 PFAS の中には、欧州の REACH 法に基づく現在の PBT 基準を正式には満たしていないものもあるが、それらは極めて残留性が高く、水系や土壌内で非常に移動性があり、 それらの増加する使用は、継続するばく露につながり、生物蓄積性として同じく懸念座量である(RME 第 2 草稿についてのノルウェーのコメント)。既に、短鎖 PFAS は、遠隔地であっても環境中に普遍的に存在している(例えば、Zhao ら、2012 参照)。

180. より疎水性のアルキル鎖を有する長鎖 PFAS と比較して水への溶解度が高いことは、短鎖 PFAS、特に短鎖 PFCAs および PFSA が飲料水貯水池に迅速に入り込み、水が豊かな葉や果実のような食用植物組織に、蓄積する傾向があるという事実にも寄与する。地下水や飲料水中に存在することにより、生物がある種の短鎖 PFAS に継続的にばく露 される可能性がある。現在は、まだ比較的低いのレベルであるが、高い持続性とこれらの物質の使用が増加することを考慮すると、環境中の濃度の一時的上昇が予想される。これは、吸着能が低いために現代的な高価な技術(たとえ粒状の活性炭やナノろ過など)であっても、水からの短鎖 PFAS の除去は効果的に行えないため、前述のことはさらに妥当と言える(German Environment Agency、2016b)。

-

²⁵ http://chm.pops.int/tabid/4814/Default.aspx.

181. ドイツは、物質が非常に高い残留性と非常に高い生物蓄積性であることと同様に、移動性と残留性に関連する特性を有する物質を REACH 下で非常に懸念される物質として識別することを提案しているドイツ環境庁、2017 参照)。第 2.3.2 章に記載されているように、これらの物質は、いくつかの用途で(繊維部門、泡消火剤、紙および食品包装など)PFOAの代替品とみなされている。しばしば、これらの短鎖選択肢は効果が少なく、より多くの量が必要とされる。このデータは、短鎖フッ素化物質による PFOA とその塩類および関連化合物の代替えが残念な代替物として見なされ得ることを示唆している。

これに関連して、短鎖 PFAS による汚染は、コミュニティ/社会にとって重い負担で あることに注意すべきである。ドイツでは、おそらく紙スラッジと堆肥を混合したことによ って、450ha以上の農場が PFAS で汚染された。PFAS は、土壌および地下水中の高濃度で見 出されている。短鎖 PFAS はこの領域の主な汚染物質である。その結果、2 つの飲料水井戸 が閉鎖された。短鎖-PFAS は植物の可食部に取り込まれ、作物は短鎖 PFAS のレベルが上昇 していることが示されているため、収穫前に PFAS レベルを分析する必要がある。 PFAS を 濃縮しない作物のみを栽培することができ、短鎖 PFAS のレベルの上昇を示す収穫は、人が 摂取することも、飼料として使用することもできない。土壌を浄化する、あるいは短鎖 PFAS が地下水に到達するのを止めるための解決策はまだ見つかっていない。 大規模な汚染 地域のため、掘削は適切ではないようである。住民、公衆、農民の全体的な結果は非常に大 きい。修復と水の浄化と清浄な飲料水の供給のためのコストは高い。26地元の水道会社は、 この地域で清浄な飲料水を供給するために過去2年間に300万ユーロを投資した。この投資 は、活性炭に基づく新しい浄化プラントが建設されつつあり、運転コストが増加するため、 2018 年までに 800 万ユーロに増加する予定である。 短鎖 PFAS の性質のために、化学物質の 漏出を避けるために、活性炭を頻繁に交換しなければならない。その結果、2017年に飲料水 の価格はこの地域で13.4%増加した。コストのさらなる増加があり得る(RME第3草稿に 関するドイツのコメント)。27

特定のセクターおよび用途のための適切な代替品の入手可能性のまとめ

183. 代替物質の分析に基づいて、次の表は、PFOAとその塩類および PFOA 関連物質の使用に対するセクターおよび特定の用途の代替物質が利用可能であるか否かを要約している。

表 4: PFOA とその塩および PFOA 関連物質の特定のセクターと用途への代替物質の入手可能性

セクター	用途	利用可能な 適切な代替 品(または 代替物質)	代替品(または代替物質)のタ イプ
繊維品セクター	標準的な性能要件(例えば、標準的な衣類など)	はい	非フッ素含有製品 (例えば、パ ラフィン);非化学的代替品 短鎖フッ素化製品 (例えば、C ₆ - ベース)
	高性能の要件(例えば、プロ用の防護繊維製品)	いいえ	
ポリマー製造	重合プロセス補助剤	はい	パーフルオロアルキル部分(例 えば、ADONA)の間のエーテル 結合を有する物質
泡消火剤	液体火災の消火	はい	タンパク質ベースまたは洗剤ベ ースの泡消火剤

²⁶ 今日まで、入手可能な科学論文はないが、いくつかの情報は地方当局によって提供されている(ドイツについては以下を参照)http://www.landkreis-rastatt.de/,Lde/PFC.html and http://www.baden-baden.de/stadtportrait/aktuelles/themen/pfc-problematik/.

40

 $^{^{27}\} http://www.star-energiewerke.de/de/Kopfnavigation/News/Pressearchiv-2017/PFC-Folge-In-Rastatt-steigt-der-Preis-fuer-Trinkwasser.html.$

セクター	用途	利用可能な 適切な代替 品(または 代替物質)	代替品(または代替物質)のタ イプ
			短鎖フッ素化製品 (例えば、C6- ベース)
紙および食品包装	食品包装	はい	非フッ素含有製品(例えば、高密度紙) 短鎖フッ素化製品(例えば、C6-ベース)
イメージングおよ び印刷業界	少数の残りの従来の写真用 製品の製造	いいえ	
半導体業界	非常に特殊化された応用手順(例えば、フォトリソグラフィー用途)のためのプロセス化学処方中の構成材料	いいえ	

2.4 可能な規制措置を実施するための社会への影響に関する情報の要約

2.4.1 公衆衛生、環境衛星、労働衛生を含む健康

184. 環境区分および生物相と人において、PFOA 関連物質の広範な発生がある。PFOA とその塩類および関連物質は、長距離環境輸送の結果として、PFOA に分解することは、グローバルな活動が正当化けしているように(UNEP/POPS/POPRC.12/11/Add.2)、人の健康および/または環境影響に重大な悪影響につながる可能性がある。したがって、PFOA とその塩類および関連化合物を禁止または規制することは、排出量を減らすことによって、の健康および環境に良い影響を及ぼし、その結果、人および環境ばく露を減らす(例えば、ノルウェー2016; ECHA、2015a、2015c 参照)。

185. PFOA および PFOA 関連物質を規制することの人の健康および環境への影響を評価す る際には、PBT物質としてのこれらの物質の特定の懸念を考慮することは、非常に重要であ る。これらの懸念は、PFOA が環境中に残留する可能性に特に関連しており、PFOA が環境 から除去されていない(またはほんのわずかしか)ことを意味する。PFOA および PFOA 関 連物質の排出が中止されたとしても、環境中の濃度が即座に低下することにはならない。そ の蓄積性に加えて、PFOA は環境中で移動性があり、遠距離に分布する可能性がある。 例え ば、長距離大気移動による。結果として、PFOA は地球規模で、また PFOA の排出がごくわ ずかである遠隔地にも環境中に存在する。継続的な使用と排出は、環境中の濃度の上昇、お よび PFOA への長期的、大規模な環境および人ばく露につながる可能性がある。 PFOA およ び PFOA 関連物質の継続的使用および排出は、生物に蓄積する PFOA の潜在的可能性および その毒性学的特性と組み合わせて、長期ばく露による人の健康および環境に悪影響を及ぼす 可能性がある。これらの影響は、いったん発生すると元に戻すことが非常に困難になる。 POPs としての PFOA および PFOA 関連物質のリスクの大きさおよび程度は依然として不明 である。したがって、、これらの物質のリスク管理は、継続的な排出に起因する重大である 可能性が高く不可逆的な影響を回避するための科学的データおよび予防措置によって推進さ れている。PFOA および PFOA 関連物質の排出を削減することが人の健康および環境へ与え る物理的影響を完全に定量化することはできないとしても、これは明らかである(ECHA、 2015a) 。

186. PFOA および PFOA 関連物質の EU 規制により、産業界はほとんどすべての用途およびセクターでそれぞれの化合物を段階的に廃止し、重要なすべての排出源(既存の在庫および PFOA および PFOA 関連物質の使用が適用除外されたもの排出は除く)は廃止する(ECHA、2015a)。規制に関する EU 提案の背景文書では、PFOA に関するより、ほとんどの適切な代替物質の毒性学的特性に関して利用可能なデータがかなり少ないと述べられている。しかし、代替物質の分析に基づくと、それらは、PFOA および PFOA 関連物質よりも低い健康リスクをもたらすと予想される。したがって、この規制は、人の健康への影響(ECHA、2015a)の観点から社会への純益をもたらすと期待されている。

187. カナダは、技術的または経済的に実現可能な代替物質が存在しない場合、または代替物質への移行に十分な時間を与える必要がある場合には、これらの物質の継続的使用に期間限定付きの適用除外を適用するが、PFOA および長鎖 PFCAs を禁止する(Canada、2016c)。便益の定量的分析は行われていないが、修正案は、PFOA および長鎖 PFCAs の製造、使用、販売、販売のオファー、または輸入を禁止することによって環境を保護する。これらの物質の管理から、環境品質の向上が期待されている(Canada、2016c)。

188. オーストラリアは、地表水、地下水および飲料水の汚染を避け、続いて人ばく露の可能性を低下させる(オーストラリア、2016年)ために、規制措置による良い影響を期待している。

189. テキスタイル業界の代表者は、耐久性のある忌避性性能基準を満たさなければならない専門的、技術的、保護用繊維製品に関しては、すでに行われている排出を防止することに対する大きな進展を考慮すると、これ以上の規制は、専門的、技術的および防護繊維製品の排除につながり公衆衛生、環境、労働衛生を深刻な危険に陥れる(VTB SWT、2016 およびTM、2016 参照)。

190. 欧州の写真業界の代表者によれば、再処方や製品の中止を含む写真撮影業界が実施した管理措置(規制)は、全世界でPFOA関連物質の使用を95%以上削減した。フォトイメージング産業による少数の継続的な使用による排出は、ECHAを含む EU の多数の管轄当局によって評価され、環境や人の健康に関連するリスクをもたらすことはないと決定された(I&P) ヨーロッパ、2016a)。写真の用途や半導体産業からのPFOAの排出量は、EU全体で100kg/未満であると思われる(したがって、相対的なリスクは低い)(ECHA 2015c)。

191. SIAによると、2015年に北アメリカで販売された半導体フォトリソグラフィー処方剤中のPFOAおよびその関連物質の総量は720kgであった。SEMIから提供された情報によれば、過去5年間(2011~2015年)のデータをもとに製造されたすべての半導体製造装置に組み込まれたフルオロポリマーは、世界レベルでのPFOAの限界源の120kg/年である。また、半導体製造(関連インフラストラクチャ)用の施設関連の化学、ガス、および空気分配および制御システムに組み込まれているフルオロポリマー材料は、25kg/年以下と推定されるPFOAの限界源である(RME第1草稿に関するSEMI)。

2.4.2 農業、水産養殖および林業

192. PFOA は国内の法律次第で特定の国の農地に散布される下水汚泥中に存在する。いくっかの農作物は、PFOA によって媒介される種依存性有害作用(例えば、根の生育および壊死)を示した(Li、2009 および Stahl ら、2009 を参照する UNEP/POPS/POPRC.12/11/Add.2を参照)。下水処理場で固化した改良土壌で栽培された作物は PFBA や PFPeA(Blaine ら、2013)のような PFOA の代替物質を取り込む。PFBA、PFHxA、PFHpA、PFOA、およびパーフルオロノナン酸(PFNA)は、植物に転位する(Bizkarguenaga ら、2016; Krippner ら、2014)。PFOA および PFBA は、スキー・コースに沿った松の葉にも見られる(Chropenova ら、2016)。 オーストラリアでは、PFOA 含有 AFFFs の従来の使用がいくらかの農業活動に影響を与えている(セクション 2.2.3 参照)。廃水処理場からの汚泥の使用は、PFAS、その中の PFOA および関連物質(RME 第1 草稿に関するドイツのコメント)が農業分野を汚染する。ドイツでは、廃棄物/汚泥を農場に(違法に)処分することにより、土壌、地下および飲料水、農作物および人ばく露の汚染が生じ、農民の収入を減少させる重大な結果が生じている(セクション 2.2.2 参照)。したがって、PFOA とその塩類および PFOA 関連物質の規制は、農業にとって利益をもたらすであろう。

2.4.3 生物相(生物多様性)

193. 環境区分および生物相と人において、PFOA 関連物質 の広範な発現がある。PFOA とその塩類および PFOA に分解される関連物質は、長距離環境移動の結果として、人の健康および/または環境影響に重大な悪影響につながる可能性がある

(UNEP/POPS/POPRC.12/11/Add.2)。 PFOA とその塩類および PFOA 関連物質を規制することは、排出量を減らし、結果的に、生物相への exposure(ばく露)を減らし、生物多様性に良い影響をもたらす。これは食生活を在来種に強く依存している先住民族のコミュニティに利益をもたらす(RME 第 2 草稿に関する IPEN のコメント)。

2.4.4 経済的側面

194. 泡消火剤や紙・食品包装に使用されるフッ素フリーの代替品など、POPs 特性を示さないコスト競争力のある PFOA の代替品は、既に多くの国で提供されている。これは、いくつかの代替品の経済的実現可能性を示している。PFOA の代替品の経済的側面には、PFOA (IPEN、2016) へのばく露に起因する健康および環境コストに対する節減が含まれる。

195. EUでは、PFOA および PFOA 関連物質の使用は、水(飲用)と土壌の汚染に対応する多額の修復コストの原因となっている。汚染の大部分は、火災や消火訓練に用いる泡消火剤に PFAS(PFOA および PFOA 関連物質を含む)を使用することによって引き起こされている。修復費用は、主に土壌/飲料水の処理、汚染土壌の掘削および処分に関連している。発生した被害の重大度の程度および関連費用は、報告された事案によって差がある。場合によっては、修復費用の総額がまだわかっていないか、または報告されていない場合もある。コストが報告されている場合、それらは、非常に事案固有で、他の PFAS を含む場合も多く、PFOA および PFOA 関連物質 1kg あたりの修復コストについて、信頼性の高い一般的な見積もりを導き出すのが非常に難しい。しかし、入手可能なデータは、PFOA および PFOA 関連物質(ECHA、2015a;特定コストの数値は ECHA の表 A.F.1-1、2015a を参照)を含む PFASの修復に関連してかなりの費用がかかることを示している。

196. PFOA および PFOA 関連物質による環境汚染は、米国およびオランダなどからの例に よると産業活動にも関連している(RME 第1草稿に関するノルウェーのコメント)。ノル ウェーは、空港と消防訓練地域での AFFF の使用による PFAS 汚染土壌の継続的な修復に言 及している(ノルウェー、2016年)。オーストラリアでは、以前に使用された PFOA 含有 AFFFs に起因する汚染された環境にあるという汚名は、不動産や事業価値の低下、そして一 部の土地の持ち主や事業主(2.2.2項参照)の損失につながっている。PFAS 化合物は、デン マークのいくつかの地点では地下水から見つかっている。PFASは、特定の産業や活動、主 に消防訓練施設の近くに存在する。いくつかの消防訓練施設では、PFOA の濃度が飲料水に おけるドイツの PFOA 限界値を約 10 倍上回っており、12 の過フッ素化物質についてデンマ ークの合計基準飲料水限度値を設定する作業を開始した。また、他の PFAS 化合物もこれら の地点で発見されたことに留意されたい(Danish EPA、2014)。スウェーデンの地下水では、 特に消防訓練拠点や火災鎮火に関連した地域で PFAS (PFOS と PFOA を含む) が高レベルで 検出されている。いくつかのケースでは、PFAS の濃度がスウェーデンの国家食品庁の対策 レベルを上回っている。その結果、井戸や水道事業者は新しい処理ステップを導入したり、 汚染されていない水源に切り替える必要があった(Swedish Chemicals Agency、2016a)。汚 染された場所や地下水の特定と管理は、大きな費用がかかる可能性があるが、もし、PFOA および PFOA 関連物質が制限されるなら、将来的には、その費用は減少する。最後に、これ らの例はいずれも、予防と修復能力の高い先進国のものであることにも留意すべきである。 途上国や移行国では、こうした行動は外部資金と専門知識を必要とするか、あるいはまった く実施されず、健康や環境に許容できない害をもたらす(RME 第2草稿に関する IPEN の意 見)。

197. **PFOA** を管理する対策の均衡を評価するコスト効率分析を使用したベンチマーク調査は、**PFOA** (ならびにその他の物質) に適用または考慮されている規制措置の費用対効果の見積もりに目を向けている。この調査で提示された検索結果と評価は、明示的なグローバルスコープを持ち、オンラインで見つかる可能性のあるすべての研究、報告書、および出版物が含まれていたが、著者の居住地と言語の範囲のために、わずかにヨーロッパに「偏った」オーバーサンプリングの可能性がある。入手可能な証拠によれば、対策の費用が1,000 ユーロ/kg 未満の物質使用の場合、あるいは、排出削減の場合は、通常は不均衡な費用という理由で拒絶されないが、50,000 ユーロ/kg を超える対策費用の場合は、そうした拒絶が起きる可能性がある。**PFOA** の代替、排出管理、修復費用の平均推定単価は、1,580 ユーロ/kg(28~3,281 の範囲)である(Oosterhuis ら、2017 参照)。

198. カナダ、EU、ノルウェーにおける規制上の PFOA リスク管理アプローチは、市場が PFOA および PFOA 関連物質を既に置き換えたため、経済的影響がさらに大きくなるとは予想されない。これは、推定される適度なコンプライアンス費用 (ECHA、2015a; Canada 2016c) に反映されている。

199. ラテンアメリカやカリブ海諸国、アフリカなどの国々が、目録製品を開発し、モニタリングを実施し、それらを含む物質または廃棄物を排除するための財源だけでなく、条約のすべての附属書にある PFOA とその塩類、ならびに PFOA 関連物質を含むことから生じる義務を遵守する能力があるかどうかを確認するための技術的および経済的評価はまだ行われていない。

200. PFOA とその塩類、および PFOA 関連物質は、いくつかの半導体製造プロセスで使用されている。代替物質による化学物質の置き換えが進行中であるにもかかわらず、代替物質の機能は依然として不十分であり、置き換えが 2019 年までに完了することは不確実である。置き換えに失敗すると、半導体の供給が減少し、それが世界の IT 開発に大きな悪影響を及ぼす可能性がある(日本、2016年)。半導体業界の代表者によれば、適用除外がなければ、制限の費用対効果は半導体製造装置産業にとって過度なものなる(RME 第 1 草稿に関する SEMI のコメント)。

201. ノルウェーは、繊維製品における PFOA と PFOA 関連物質の継続的な使用は、物質の PBT 特性に起因して高い社会経済的コストの原因となると述べている。ノルウェーによれば、消費者向けの繊維製品では PFOA を含むものは少なく、残りの繊維製品では PFOA 濃度が低下している(RME 第 1 草稿に関するノルウェーのコメント)。

202. フォトイメージング産業は、PFOA 関連物質の大半の用途の代替物質を開発することに非常に成功し、2000年以来、その全世界の使用の95%以上を排除している。しかしながら、産業界は、PFOA 関連物質の界面活性および静電気制御特性は、いくつかの残る従来のフィルム製品(すなわち、画像形成が銀に基づく製品 ハライド技術)の製造にとってコーティング層の塗布の製造工程で重要であると主張している。PFOA 関連物質のこの使用を置き換える費用を見積もることは難しいが、これらは市場で減少するニッチ製品であると指摘している(I&P Europe、2016a)。この用途では、デジタル・イメージングが PFOA の必要性を代替でき、その移行が急速に進んでいることは明らかである。

203. フルオロカウンシル・メンバー企業は、代替品(または代替物質) 重合補助剤、短鎖製品および排出制御技術の開発に大きな投資をした。認識されるべきもう 1 つのコストは、医薬品やその他の高度に特殊化された用途に使用される特定の PFOA 関連化学物質の生産を完全に中止する場合の経済、人の健康に関するコストである。これらの用途における環境排出は、十分に制御できることに留意されたい(FluoroCouncil、2016a)。

2.4.5 持続可能な発展への動き

204. PFOA の廃止は、有害化学物質の排出削減を目指す持続可能な開発計画と、2015 年に世界的に採択された持続可能な発展目標のいくつかと一致している。SAICM は、化学物質の安全性と持続可能な発展の間に不可欠なリンクを結んだ。SAICM の包括的な政策戦略では、2020 年までに科学的なリスクアセスメントと、より安全な代替物質の入手可能性とその効力に加えた費用と便益の考慮に基づき、人の健康と環境に不合理な、あるいは管理不能なリスクをもたらす化学物質が、もはやそのような用途のために生産され、使用されないことを目指している。²⁸SAICM の世界行動計画には、残留性、生物蓄積性、および有害物質の安全かつ効果的な代替品の優先順位付けなど、リスク低減を支援する対策の指針が含まれている。過フッ素化化学物質に関する情報の収集と交換をグローバルに協力し、より安全な代替物質への移行を支援するために、グローバル PFC グループと Web ポータルが SAICM 内で開発された。²⁹

205. 専門家、技術者、保護用繊維製品セクターの業界代表者は、他の締約国に対し、技術 繊維製品セクターにおける適切な代替物質の研究開発プロジェクトに参加するよう促してい る(詳細は VTB SWT、2016 および TM、2016 を参照)。

-

²⁸ http://www.saicm.org/Home/tabid/5410/language/en-US/Default.aspx.

²⁹ http://www.oecd.org/ehs/pfc/.

2.4.6 社会的コスト

206. IPENは、健康および環境上の利益の方が、PFOAの排除に関連する社会的コストをはるかに上回ると考えている(IPEN、2016)。

207. 大部分の用途で、妥当なコストによる実施可能な代替品が利用可能であるため、EU の規制は雇用に大きな影響を与えるとは考えられない。さらに、輸入された製品や混合物にも規制が適用されるため、生産施設のEU外への移転は、関係業界にとっての解決策ではありえない。したがって、事業活動の終了および/または移転(ECHA、2015a)のために、EUにおける雇用が著しい損失(または利益)を生じることは予想されない。

208. 専門家、技術者および保護用繊維製品セクターに関しては、業界は、附属書 A の下にその物質を掲載する生産の全面的禁止が、欧州の専門、技術および保護用繊維製品業界における雇用に悪影響をもたらすと考えている(VTB SWT、2016 および EURATEX 、2016)。

2.5 その他の考慮事項

2.5.1 情報へのアクセスと公的教育

209. いくつかの締約国およびオブザーバーが情報および公的教育へのアクセスに関する情報を提供している:

- (a) アルプス地域における残留性およびその他の有機汚染物質のモニタリングネットワーク: http://www.monarpop.at/;
 - (b) オーストリア環境庁::http://www.umweltbundesamt.at/ummuki_symposium/;
- (c) カナダ環境保護法 1999 年の取り組みに関する情報: http://www.ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=1FE509F3-1;
- (d) カナダにおける物質の評価および管理に関する情報: http://www.ec.gc.ca/toxiques-toxics/default.asp?lang=En&n=97324D33-1;
- (e) PFOA とその塩類、およびその前駆体に関する追加情報は、カナダの環境および気候変動に関するウェブサイトから入手できる:

http://www.ec.gc.ca/toxiques-toxics/Default.asp?lang=en&n=F68CBFF1-1 and concerning regulatory controls

http://www.ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=3E603995-1;

- (f) ノルウェー環境庁:http://www.environment.no/;
- (g) フルオロカウンシル・メンバーによって作成されたデータへのアクセス: https://fluorocouncil.com/Resources/Research;
- (h) ドイツ環境庁: https://www.umweltbundesamt.de/.ドイツ環境庁(EPA)は、フッ素系泡消火剤の環境配慮的使用に関する小冊子を発行している(ドイツ環境庁、2013年)。
 - (i) 連邦労働安全衛生研究所: http://www.baua.de/de/Startseite.html;
- (j) スウェーデン化学品監督局:www.kemi.se.PFAS 汚染は社会のさまざまな関係者の懸念であり、多くの当局はさまざまな対策を講じ、開発しており、Webベースのガイドが開発されている(スウェーデンでは)。

2.5.2 制御およびモニタリング能力の状態

- 210. PFOA は、様々な媒体で測定されてきた。例えば、人の血液および母乳、ならびに水、 土壌、堆積物および魚を含む生物相が挙げられる。オーストリア環境庁(EAA)のデータベ ースからモニタリングデータが提供されている(詳細はオーストリア、2016a参照)。
- 211. カナダでは、環境媒体および生物相におけるモニタリングを使用して、リスク管理制御の有効性を評価し、カナダ環境でのPFOAの排除に対する進捗状況を測定している。さら

に、PFOAのモニタリングは、野生生物種における汚染レベルの上昇人ばく露に対する懸念に対応して、1991年に設立された北部汚染物質プログラムの一環として実施されている。これらの野生種は北部の先住民の伝統的な食生活にとって重要である(NCP 2013)。 30 2007~2015年の間、肝臓における平均 PFAS 濃度(湿重量)は、主に PFOS および Σ PFCAs(低レベルの PFOA、しかし主に Σ C9、 Σ C10および Σ C11PFCA)で一貫して構成されていた。 PFOS は Σ PFCAs より一貫して高く、そして、一貫して ppm レベルであったが、ハドソン湾の南部の熊はハドソン湾の西部の熊に対して、より高いレベルであった。 両者の Σ PFCAs および PFOS の明らかな増加または減少の傾向はなかった。 Σ 1

- 212. PFOA を含む PFAS は、デンマークの水生環境のモニタリング対象の一部である。 2008 年から 2013 年の間、PFAS は、河川、湖沼、海洋地域だけでなく点源のモニタリングに も含まれていた。PFOS および PFOA は、河川において最も頻繁に検出される PFAS であり、廃水処理プラント排水中で最も頻繁に検出される化合物の1つである。河川と流出物の両方で、それらは最高濃度で検出される。 (Denmark, 2016)。
- 213. PFOA を含む PFAS は、スウェーデンの環境監視プログラム ³²とスウェーデンの健康 関連モニタリングプログラム ³³(RME 第 2 草稿に関するスウェーデンのコメント)に含ま れている。PFOA および他の過フッ素化化合物は、カナダでは人もモニターされている。例 えば、北極汚染物質プログラム、カナダ健康対策調査、カナダ環境化学物質に関する母子調 査など。
- 214. PFOA を含む PFAS は、人の血液サンプルおよび小児および若い成人の尿中でモニターされる。ドイツ環境調査(GerES V)のデータは 2014 年から 2017 年までの期間に作成され、PFAS は調査の一部に過ぎない。この調査では、室内空気や飲料水などの汚染物質の発生源も調べている。 34
- 215. 多くの国々には、PFOAとその塩類および PFOA 関連物質を含む製品や廃棄物を決定する能力や、異なる環境マトリックスで存在を特定する能力がない。このような能力の欠如は目録の設定、関連廃棄物の特定、およびそれぞれのモニタリングの実施を妨げるため、条約が定める義務の遵守に関連して、考慮する必要がある。このため、効果的な遵守性を達成するためには、講じるべき措置を決定するパイロット・プロジェクトの実施が推奨される (RME 第 2 草稿に関するコロンビアのコメント)。
- 216. IPEN 提出の附属書 Fによると、多くの国が PFOA (IPEN、2016) の生産と使用を適切に監視するために必要なインフラストラクチャーを持っていない。

3 情報の統合

3.1 リスクプロファイル情報の要約

217. PFOA は、生物蓄積性、および人を含む動物に毒性がある。環境区分および生物相と人において、PFOA 関連物質の広範な発現がある。したがって、PFOA とその塩類および PFOA に分解する関連物質は、長距離環境移動の結果として、人の健康および/または環境に重大な悪影響を及ぼす可能性があり、グローバルな活動が正当化されている(UNEP/POPS/POPRC.12/11/Add.2)。

http://www.science.gc.ca/ncp.

³⁰ 概要報告書は、毎年発行され、最新のレポートは、以下の URL から入手できる。 http://pubs.aina.ucalgary.ca/ncp/Synopsis20152016.pdf.

³¹ プログラムに関するさらに詳細な情報は、以下の URL から入手できる。

³² http://www.naturvardsverket.se/Miljoarbete-i-samhallet/Miljoarbete-i-Sverige/Miljoovervakning/Miljoovervakning/Miljogiftssamordning/.

³³ http://ki.se/en/imm/health-related-environmental-monitoring-hami.

³⁴ https://www.umweltbundesamt.de/en/topics/health/assessing-environmentally-related-health-risks/german-environmental-surveys/german-environmental-survey-2014-2017-geres-v#textpart-1.

218. 特に多様な潜在的な発生源が存在し、そしてそのほとんどで情報が不足しているので、どの特定の用途または関連する排出が最も大きなリスク要因となっているのか、確信を持って予測することは困難である。PFOAの重要な潜在的な発生源は、側鎖フッ素化ポリマーの一般的な使用、特に繊維製品セクターにおけるそれらの使用、およびフルオロポリマーの製造における使用であると考えられる。その他の重要な発生源は、塗料や泡消火剤と考えられる。PFOA排出に寄与しないPFOA関連物質の特定の用途を、利用可能な情報に基づいて明確に識別することは難しい。

219. 附属書 E 関連提出書類は、リスク管理評価書 (UNEP/POPS/POPRC.13/INF/6 参照) の背景文書にまとめられている。生産、使用、および排出に関するその他の利用可能なデータは、リスクプロファイル (UNEP/POPS/POPRC.12/11/Add.2) にまとめられている。

3.2 リスク管理評価書情報の要約

220. PFOA とその塩類および PFOA 関連物質の規制または禁止は、排出量の減少、その後の人および環境へのばく露の減少によって、人の健康および環境に良い影響を与える。

適切な代替物質の有効性、効率性および入手可能性の要約

221. EU におけるリスク管理アプローチには、いくつかの適用除外が含まれている。カナダとノルウェーも、複数の適用除外をリスク管理アプローチに含めている。そのうち、一部の適用除外は 2016 年末(表 3 参照)に終了したものである。

222. 代替物質の開発のために利用できる情報によれば、現在、半導体産業における特定の用途で技術的および/または経済的に実現可能な代替物質は存在しない。しかし、業界は、今後数年以内に代替物質が利用可能になることを示唆している。使用量が少なく、排出量が少ないことが期待されるため、EUでは、半導体の製造に使用される機器について期間限定適用除外(2022年7月4日まで)が与えられる。また、EUでは、半導体のフォトリソグラフィー・プロセスや化合物半導体のエッチング・プロセスには期間限定なしの適用除外が与えられている。カナダでは、製造品目の半導体が適用除外されている。ノルウェーでは、半導体の接着剤、フォイルまたはテープの適用除外は、2016年までで終了した。産業情報(MEM 2017 を関)に基づくし、NET の関係がは、関門原式をは関度なり、の意思除機が表

(SEMI 2017 参照) に基づくと、以下の用途では、期間限定または限定なしの適用除外が考慮されるべきである: (1) 半導体の製造に使用されるフルオロポリマーおよびフルオロエラストマー中の PFOA の残留物を含む設備、それらの交換品およびスペアパーツおよび関連するインフラストラクチャー(すなわち施設関連の化学物質、ガス、および空気分配および制御システムおよび化学物質貯蔵システム、物質または混合物搬送用の化学コンテナシステム);また:(2) 半導体のためのフォトリソグラフィー・プロセス、または化合物半導体のためのエッチング・プロセス;

例えば屋外セクターで使用される繊維製品の代替品の開発に利用可能な情報によれば、 代替品は利用可能ではある。しかし、高性能要件を要する技術繊維製品については、技術的 および/または経済的に実現可能な代替品は存在しない。これは、労働者を安全衛生上の危 険から保護するための繊維の使用についての懸念であり、このために EU で期間限定の 適用 除外(2023年7月4日まで)が与えられている。これは、医療用繊維製品、水処理における 濾過、製造プロセスおよび流出物処理における使用を意図した膜の場合にも当てはまる。ノ ルウェーでは、消費者用の繊維品だけが制限されているが、プロ用の繊維品は対象外である。 カナダのアプローチは製造品目には適用されない。したがって、PFOA とその塩類、および PFOA 関連物質 を含む繊維製品の輸入、使用、販売および売却はカナダでは制限されていな い。ストックホルム条約では、特に以下のような高性能要件を有するテクニカル・テキスタ イルについて、期間限定の適用除外が考慮される: 労働者を健康および安全に対する危 険から守るための危険な液体から保護する撥水撥油性織物;そしてそれは次のように考える ことができる:(2)医療用繊維製品、水処理における濾過、製造プロセスおよび流出物処理 における使用を意図した膜の場合にも当てはまる。後者については、適用除外を可能にする ために、適用範囲、使用量、代替品の入手可能性および社会経済的側面を明確にするための 追加情報が必要である。

224. 印刷用インク業界は、これらのインクは特定のプロ用プリンタ向けに特別に設計されているため、2020年まで使用する必要があると発表した。この使用は、もはや製造されていないプリンタでのみで継続されるので、段階的廃止は既に進行中である。ラテックス印刷用

インクには、EUにより、期間限定の適用除外(2022年7月4日まで)が与えられている。 カナダは2016年まで水系インクを適用除外にしていた。ノルウェーのリスク管理アプロー チは、消費者製品にのみ適用され、プロ用プリンタ用インクでのPFOAの使用は制限されて いない。PFOAとその塩類および関連化合物に関するストックホルム条約の義務がいつ発効 するのかに応じて、ラテックス印刷インクは適用除外されない場合もある。

短鎖フッ素化代替品の製造には、PFOA および PFOA 関連物質の不可避な割合の製造 が含まれる。これは、その製造中に適切な濃度制限を設定することによって対処できるもの である。EUの規制における閾値のセットは、業界からの情報に基づいており、C₆フルオロ テルマー代替物質の現在の製造中に発生する PFOA および PFOA 関連物質の避けられない割 合が考慮されている。1つの選択肢は、これらの物質を閉鎖系のサイトに限定した単離され た中間体として短鎖フッ素化物質へ再処理することである。ストックホルム条約によると、 「閉鎖系サイト限定の中間体の製造および使用中に、その化学物質が有意な程に人および環 境に到達することがないことを考えると、加盟国は事務局へ通知し、閉鎖系サイト限定の中 間体としてその附属書にリストアップされている化学物質の使用と生産を許可できる可能性 がある。なお、この中間体は、附属書 D の 1 項の基準を適用すると、残留性有機汚染物質の 特性を示さないもので、他の化学物質の製造中に化学的に変換されたものである。」とす る。35ノルウェー、カナダ、EU はいずれも、適所での短鎖フッ素化代替物質の製造に対する 特定の適用除外はない。したがって、ストックホルム条約の附属書AをたはBに記載されて いる物質については、閉鎖系サイト限定の中間体において、このような再処理を可能にする ための適用除外は不要である。 移送された単離された中間体については、特定の条件が満 たされている場合には、4項(c)に従う EU 制限において、期間限定なしの適用除外が予想 される (European Commission、2017)。生産現場以外の場所での再処理を可能にするため に、移送された分離された中間体について、ストックホルム条約の下で適用除外 を検討す ることも可能である。条件は、EU 規制の下で確立されたものと類似している可能性がある (83節)。適用除外を認めるためには、輸送の量、輸送の範囲およびリスクを明確にする 追加情報が必要である(適用除外)。

226. 医薬品製造の加工補助剤として PFOB の代替品(または代替物質)は見つかっていない。PFOB は PFOI から 6:2 フルオロテロマー系物質の生産に伴い生成される。PFOI の生産は、日本の単一のサイトで行われ、PFOB の生産の中間体として使用されるために、日本の別の場所に輸送される。 その後、PFOB は米国とスウェーデンの 2 つのサイトに輸送され、関連する医薬品を生産している。現時点で EU、ノルウェー、またはカナダで関連する適用除外は提案されていない。SAICM の文脈では、医薬品は人の健康や動物の福祉にとって大きなメリットがあると認識されているが、環境的に残留性ある医薬品汚染物質は、新規政策課題として取り上げられてきてもいる。³⁶提供された情報によると、PFOI から始まる現在の生産プロセスは、PFOB を生産する唯一の合理的な方法と考えられている。さらに、PFOB のalternative (代替品(または代替物質))がに見つかったとしても、医薬品に組み込むための開発プロセスは、典型的には、human (人)に対する三段階の臨床試験および規制当局の審査プロセスを完了するためには、10 年間を要する。

227. デジタル・イメージングはフォトイメージングにおける PFOA を不要にするもので、その移行は急速に進んでいる。また、フォトイメージングにおける PFOA の使用は、2000 年以来、世界で 95%以上削減されてもいる(I&P Europe)。デジタル・イメージングへの移行が進むにつれて、これらの物質の使用のさらなる削減が予想される。代替物質の開発情報によれば、フォトイメージング部門では、少数の関連する用途が残っている。EU 規制の中では、フィルム、紙または印刷版(欧州委員会、2017)に塗布される写真コーティングに対して期限限定なしの適用除外が与えられている。ノルウェーとカナダでのこの使用に対する特定の適用除外は 2016 年に失効するが、ノルウェーのリスク管理アプローチは消費者製品へのみ適用され、カナダでは PFOA とその塩または PFOA 関連物質を含むフィルム、紙または印刷版に塗布されるフォトメディア・コーティングの輸入、使用、販売および販売のオファーについて、制限されない。フィルムに塗布される写真コーティング剤については、ストッ

³⁵ ストックホルム条約附属書 A 及び B の第 I 部注(iii)。

³⁶ http://old.saicm.org/index.php?option=com_content&view=article&id=566&Itemid=775.

クホルム条約の下で期間限定適用除外を考慮すべきである。POPRC-13 で、紙と印刷版においては期間限定適用除外は、もはや必要ないという情報が業界から提供された。途上国では、そのような情報が欠けていることも留意された。

- 228. スマートフォンメーカー向けのコーティングを行っている企業の一つは、EU の公聴会の中で代替品(または代替物質)化学物質 C_6 への移行のため、パルス・プラズマ・ナノコーティングの3年間の適用除外を要請した。プラズマ・ナノコーティングに対しては、EU により、期間限定の適用除外(2023年7月4日まで)が与えられている。ノルウェーとカナダには、ナノコーティングの特別な適用除外はない。カナダでは、PFOA とその塩類あるいは PFOA 関連物質を含むスマートフォン用(または電子機器)コーティング剤の輸入、使用、販売、販売のオファーは制限されていない。1社のみが短期間の適用除外を求めた。
- 229. 泡消火剤での PFOA の使用は、環境への直接的な散布的放出であるため、懸念が生ずる。泡消火剤についてはすべての用途で PFOA の代替物質が存在し、それには、フッ素フリーの溶液だけでなく、フルオロ界面活性剤と C_6 -フルオロテルマーも含まれている。 EU の規制の範囲では、すでに市場に出されている泡消火剤について適用除外を提供するために、期間限定適用除外が与えられている。 さらに、カナダは、消防用途に使用される AFFF を含む PFOA の適用除外を提供している。ノルウェーのリスク管理アプローチは、消費者製品に対するものであり、AFFF は専門家向けのものであるため、適用されない。すでに市場に設置または設置されている泡消火剤(EU POPs 規制中で PFOS のために実施されている)のための期間限定適用除外は、注(ii)の下で、網羅されており、その条項に従って継続して使用できる。既存の泡消火剤の使用は避けるべきであり、さらなる汚染を防止するために、既存の泡消火剤は短期間で持続可能な代替品に置き換えるべきである。訓練目的のために、PFASやフッ素化代替物質を含むを含有する泡消火剤を使用してはならない。訓練目的のための適切な代替物質は存在する。
- 230. ノルウェーは、医療デバイスに(期間限定なし)の適用除外を実施している。EU の規制の範囲で、指令 93/42/EEC の範囲内のある種のインプラントな医療デバイス以外のものについては、期間限定適用除外(2032 年 7 月 7 日まで)される。インプラントな医療デバイスの製造には、期間限定なしの適用除外が与えられている。 PFOA とその塩類および PFOA 関連物質 を含む医療デバイスの輸入、使用、販売および販売のオファーはカナダでは制限されていない。IPEN から提出された情報によれば、これらの用途に対して適用除外が検討される可能性があるが、これらの医療機器を使用する医療従事者と協議しなければならない。それゆえ、(1)医療デバイスの使用;ならびに(2)ストックホルム条約に基づくインプラントな医療デバイスの生産、に対する適用除外(期間限定あり、またはなし)が考慮されるべきである。
- 231. 食品包装に使用される紙およびボール紙の処理の代替品に関する情報では、適切な代替品が利用可能であることが示されている。ノルウェーのリスク管理アプローチでは、食品包装用品および食品接触材料は適用除外されている。PFOA とその塩類および PFOA 関連物質を含む食品包装用品の輸入、使用、販売および販売のオファーはカナダでは制限されていない。EU の規制では、食品包装材の適用除外はどこにもない。適切な代替品が利用可能であるので、ストックホルム条約に基づく適用除外は必要とされない。
- 232. カナダの自動車産業によれば、情報自動車サービスおよび交換部品には依然としてPFOAが含まれている可能性がある。これらの部品は、顧客の需要を満たすために元の機器とスペアパーツの可用性を確保するために必要である。したがって、自動車サービスおよび交換部品については、特別な適用除外が業界によって提案されている。これらのパーツは、PFOAの使用割合が小さく、製品車両群の入れ替えに伴って自然に減少する。カナダでは、PFOA関連のリスク管理措置は、自動車サービスおよび交換部品の使用に影響を与えない。それは、PFOAを含むすべての製造品目は現在そのセクターで処理されているからである(CVMA 2017参照)。関連する適用除外はEUでは与えられていない。ノルウェーでは、2014年6月1日より以前に発売が可能であった消費者用製品のスペアパーツに対する禁止は適用されない。ストックホルム条約では、自動車サービスおよび交換部品のexemption(適用除外)が検討される可能性がある。ただし、既存のリスク管理アプローチでは、exemption(適用除外)は必要とされてなかったが、必要とされると思われる健全で正当な理由に加えて、関連する自動車サービスおよび交換部品の仕様について。

233. 短鎖フッ素化代替物質 (179~181 節を参照) に関連するリスクに対する懸念が高まっている。ただし、PFOA とその塩および関連する化合物の短鎖フッ素化物による代替が、代替前と同等の悪影響を及ぼすかは不明のままである。したがって、短鎖フッ素化物質による PFOA とその塩類および関連化合物の短鎖フッ素化物による代替が悪影響を及ぼすものとして特定されない可能性も不明のままである。科学者は、人の健康と環境への長期的な害を避けるために、他のフッ素化代替物質との置き換えに対しても警告している (POPRC 代替物質ガイダンス、Blum ら、2015)。

社会への影響に関する情報の要約

- 234. PFOA とその塩類および PFOA 関連物質の規制または禁止は、排出量の減少、その後のhuman(人)および環境へのばく露減少によって、人の健康および環境に良い影響を与える。さらに、PFOA の規制または禁止は、排出量を減らし、その後、農作物への悪影響を減少させることよって農業に利益をもたらすであろう。
- 235. 人の健康状態と PFOA および PFOA 関連物質の規制による環境への影響を評価する際には、PFOA を POP 物質としての固有の懸念を考慮することは重要である。 PFOA ならびに PFOA 関連物質のリスクの大きさと程度は定量化できていないが、グローバルな活動は正当化されている。 したがって、これらの物質のリスク管理は、継続的な排出に起因する重大で不可逆的である潜在性ある影響を回避するための科学的データおよび予防措置によって推進されている。
- 236. 利用可能な代替物質の一部は、特性分析に基づくと、PFOA および PFOA 関連物質よりも健康リスクを低減させることが予想される。EU 規制は、人の健康への影響の観点から社会への利益をもたらすと期待されている。その利益の定量的分析は行われていないが、カナダの規制上のリスク管理プロセスでは、これらの物質の規制は環境の質を向上させると期待されている。EU とカナダのリスク管理アプローチは、中程度のコスト的影響をもたらすと考えられている。なぜなら市場はすでに PFOA および PFOA 関連物質を代替えしつつあり、さらに、リスク管理アプローチは、代替物質の開発が進められている特定のアプリケーション、あるいは現在、代替案が存在しない場合に対しては、期間限定の適用除外と継続的な許可を提供するからである。ノルウェーのリスク管理アプローチについても同様のことが期待されている。したがって、ストックホルム条約に基づく世界的な規制または禁止は、人の健康への影響の観点から社会へ利益をもたらすと期待されている。
- 237. POPs 特性を示さないコスト競争力のある PFOA 代替物質は、すでに多くの国で実際に使用されている。これは、代替物質の経済的および技術的実現可能性を示している。PFOA の代替品の経済的側面には、ばく露減少に起因する健康および環境コストの節減が含まれる。
- 238. PFOA とその塩類および PFOA 関連物質を規制または禁止することは、地表水、地下水および土壌の汚染を減少させることによってコストを削減し、したがって汚染された場所の特定および修復のコストを削減する。修復費用は、主に土壌/飲料水の処理、汚染土壌の掘削および処分に関連している。利用可能なデータは、PFOA および PFOA 関連物質を含む PFAS の修復に関連するかなりの費用がかかることを示している。
- 239. PFOS における POPRC-6/2 の決定は、短期、中期および長期の枠組みにおける一連のリスク削減措置を概説している。POPRC は、ストックホルム条約が廃棄物に関する利用可能な最良の技術と廃棄物を駆除する技術のための最良の環境慣行を使用する必要性を再確認する。駆除技術が利用できない場合、安全な保管が保証されなければならない。

3.3 推奨されるリスク管理措置

240. 委員会は、PFOA とその塩類および PFOA 関連物質の使用について、結言節で示されているように十分な情報が提供されている場合に限り、期間限定の特定適用除外を推奨する。

4 結言

241. 委員会は、条約第8条第9項に従って、ペンタデカフルオロオクタン酸(CAS No: 335-67-1、PFOA、パーフルオロオクタン酸)とその塩類および PFOA 関連物質の条約の附属 書 A または B へのリストアップの検討を締約国会議に以下の特定の適用除外を含め勧告することを決定する:

- (a) 第4条に従って改正が効力を生じた日から5年間:
- (i) 半導体または関連電子機器の製造:
 - a. PFOA 残留物を有するフルオロポリマー/フルオロエラストマーを含む 設備または製造プラントに関連するインフラストラクチャー:
 - b. レガシー機器またはレガシー製造工場関連インフラストラクチャー: メンテナンス;
 - c. フォトリソグラフィーまたはエッチング・プロセス:
- (ii) フィルムに塗布された写真用コーティング:
- (iii) 労働者を健康および安全に対する危険から守るために危険液体から保護する撥水撥油性織物:
- (b) 半導体または関連電子機器の製造に関する法律の改正の発効日から 10 年間: レガシー機器またはレガシー改装部品用の PFOA 残留物を含むフルオロポリマー/フルオロエラストマーを含む改装部品:
- (c) ヨウ化パーフルオロオクタンの使用、引き続き適用除外の必要性を検討した上での薬品を製造する目的の臭化パーフルオロオクタンの製造:特定の適用除外は、遅くとも2036年に期限切れになる。
- 242. 関連業界を含む締約国およびオブザーバーに、PFOA とその塩類および PFOA 関連物質の製造および使用に関する特定の適用除外規定を当委員会が定義する支援情報を提供するよう要請する。特に、以下のアプリケーションにおいて:
- (a) 医療用テキスタイルでの使用を意図した膜、水処理における濾過、製造プロセスおよび流出物処理:適用範囲、使用量、代替物の入手可能性および社会経済的側面に関する情報:
- (b) 生産現場以外の場所での再処理を可能にするために移送された隔離された中間体:使用量、輸送およびリスクの程度、および使用に関する情報:
- (c) 医療機器:潜在的に関連する適用除外のために必要とされる特定のアプリケーション/使用およびタイムライン予測に関する情報;
- (d) インプラントな医療機器:使用量、輸送およびリスクの程度、および使用に関する情報;
- (e) フォトイメージング部門:紙と印刷に関する情報、および発展途上国に関する情報;
 - (f) 自動車産業:スペアパーツに関する情報;
- (G) 泡消火剤:混合物の化学組成に関する情報および泡消火剤混合物の予め充填された量の情報。

上記のアプリケーションについては、社会経済的側面およびその他の関連情報に関する情報 も歓迎される。

243. さらに、締約国およびオブザーバーは、委員会によるさらなる評価を支援するために、ペンタデカフルオロオクタン酸(CAS No: 335-67-1、PFOA、ペルフルオロオクタン酸)、その塩類および PFOA 関連物質の意図されない生成および放出、特に第1次アルミニウム生成および不完全燃焼から生ずることに関連する情報を提供するよう要請する。

引用文献

以下に注意: Risk management evaluation(リスク管理評価(書))に関する情報要求提出とコメントは、ストックホルム条約ウェブサイト、以下を参照:

http://chm.pops.int/tabid/5339/Default.aspx.

[Ackermann and Massey, 2006] The Economics of Phasing Out PVC.Global Development and Environment Institute (GDAE) Tufts University. Available from: http://www.ase.tufts.edu/gdae/Pubs/rp/Economics_of_PVC_revised.pdf

[Air Services Australia, 2016] Gold Coast Airport Preliminary Site Investigation.GHD. Available at: http://www.airservicesaustralia.com/wp-content/uploads/251713_Final_PSI-Report.pdf

[AMR, 2015] Archroma Media Release. 25 February 2015. Available from: http://www.archroma.com/wp-content/uploads/2015/02/ARCHPR034EN0215-Cartaguard-KST.pdf.

[ATSDR, 2015] Draft toxicological profile for perfluoroalkyls. August 2015. Available from: https://www.atsdr.cdc.gov/toxprofiles/tp200.pdf.

[AU Health Dep, 2017] Australian Government, Department of Health. Fact sheet: Health Based Guidance Values for PFAS for use in site investigations in Australia. 2017. Available from: http://www.health.gov.au/internet/main/publishing.nsf/Content/2200FE086D480353CA2580C900817 CDC/\$File/ fs-Health-Based-Guidance-Values.pdf

[Australia, 2016] Annex F form. Submitted 9 December 2016. Available from: http://chm.pops.int/TheConvention/POPsReviewCommittee/Meetings/POPRC12/POPRC12Followup/PFOAInfo/tabid/5453/Default.aspx.

[Austria, 2016a] Annex F form. Submitted 9 December 2016. Available from: http://chm.pops.int/TheConvention/POPsReviewCommittee/Meetings/POPRC12/POPRC12Followup/PFOAInfo/tabid/5453/Default.aspx.

[Australia Gov. 2017] Australian Government, Department of Health.2017. Health Based Guidance Values for PFAS; For use in site investigations in Australia. Available from: http://www.health.gov.au/internet/main/publishing.nsf/Content/2200FE086D480353CA2580C900817 CDC/\$File/ fs-Health-Based-Guidance-Values.pdf

[Beilstein, 2005] Handbook of Organic Chemistry (online). Request January 12.

[Bizkarguenaga et al. 2016] Bizkarguenaga E, Zabaleta I, Prieto A, Fernandez LA, Zuloaga O (2016) Uptake of 8:2 perfluoroalkyl phosphate diester and its degradation products by carrot and lettuce from compost-amended soil, Chemosphere 152:309-317

[Blaine et al., 2013] Blaine AC, Rich CD, Hundal LS, Lau C, Mills MA, Harris KM, Higgins CP (2013) Uptake of perfluoroalkyl acids into edible crops via land applied biosolids: field and greenhouse studies, Environ SciTechnol 47:14062-14069

[Blaine et al., 2014] Perfluoroalkyl Acid Uptake in Lettuce (Lactucasativa) and Strawberry (Fragariaananassa) Irrigated with Reclaimed Water. Environ SciTechnol 48: 14361–14368

[Blum et al., 2015] The Madrid Statement on Poly- and Perfluoroalkyl Substances (PFASs). Environ Health Perspect 123(5): 107-11.

[Bohlin-Nizzetto et al., 2015] PFASs in house dust. NILU. Available from: http://www.miljodirektoratet.no/Documents/publikasjoner/M430/M430.pdf.

[Buck et al., 2011] Buck RC, Franklin J, Berger U, Conder JM, Cousins IT, de Voogt P, Jensen AA, Kannan K, Mabury SA, van Leeuwen SPJ (2011) Perfluoroalkyl and Polyfluoroalkyl Substances in the Environment: Terminology, Classification, and Origins, Integr Environ Assess Manag 7:513-514

[Britto et al., 2016]. Use of alternatives to PFOS, its salts and PFOSF for the control of leaf-cutting ants Atta and Acromyrmex. International Journal of Research in Environmental Studies (2016).3(2).

[Canada, 2012a] Government of Canada.Proposed risk management approach for Perfluorooctanoic Acid (PFOA), its Salts, and its Precursors and Long-Chain (C9-C20) Perfluorocarboxylic Acids (PFCAs), their Salts, and their Precursors. Available from: http://www.ec.gc.ca/ese-ees/451C95ED-6236-430C-BE5A-22F91B36773F/PFOA%20%26%20PFCAs_RMA_EN.pdf.

[Canada 2015]Government of Canada.Long-Chain (C9-C20) Perfluorocarboxylic Acids (LC-PFCAs), their Salts, and their Precursors and Perfluorocatanoic Acid (PFOA) Its Salts, and Its Precursors -

Response to Comments on Consultation Document. Available from: http://www.ec.gc.ca/toxiquestoxics/default.asp?lang=En&n=E68CF568-1

[Canada 2016a] Annex F form. Submitted 9 December 2016. Available from: http://chm.pops.int/TheConvention/POPsReviewCommittee/Meetings/POPRC12/POPRC12Followup/PFOAInfo/tabid/5453/Default.aspx.

[Canada 2016c] Government of Canada.Canada Gazette, Part II.Vol. 150, No. 20. Regulations Amending the Prohibition of Certain Toxic Substances Regulations, 2012More recent versions available from: http://www.gazette.gc.ca/rp-pr/p2/2016/2016-10-05/html/sor-dors252-eng.php.

[Chemical Watch, 2017] Norway proposes adding second PFC to UN POPs Convention. Available at: https://chemicalwatch.com/56634/norway-proposes-adding-second-pfc-to-un-pops-convention

[Chropenova et al., 2016] Chropenova M, Karaskova P, Kallenborn R, Greguskova EK, Cupr P (2016) Pine Needles for the Screening of Perfluorinated Alkylated Substances (PFASs) along Ski Tracks, Environ SciTechnol 50:9487-9496

[Chemours, 2017]

https://www.chemours.com/Teflon_Fabric_Protector/en_US/products/teflon_ecoelite.html (Online access: 2 March 2017).

[Conder et al., 2008] Are PFCAs bioaccumulative? A critical review and comparison with regulatory criteria and persistent lipophilic compounds. Environ SciTechnol 42: 995-1003.

[CRCCARE 2017] CRC for Contamination Assessment and Remediation of the Environment.Technical Report no. 38e.Assessment, management and remediation guidance for perfluorooctanesulfonate (PFOS) and perfluorooctanoic acid (PFOA), Part 5 – management and remediation of PFOS and PFOA. March 2017. Available at

 $http://www.crccare.com/files/dmfile/CRCCARETechReport38Part5_Assessment management and remediation for PFOS and PFOA_Management and Assessment 2.pdf$

[D'eon et al., 2006] D'eon JC, Hurley MD, Wallington TJ, Mabury SA. 2006. Atmospheric chemistry of N-methyl perfluorobutanesulfonamidoethanol, C4F9SO2N(CH3)CH2CH2OH: kinetics and mechanism of reaction with OH. Environ Sci Technol. 40, 1862-1868.

[Danish EPA, 2014] Danish Environmental Protection Agency.Screeningsundersogelse af udvalgte PFAS-forbindelser som jord- og grundvandsforurening iforbindelse med punktkilder.Available from: http://www2.mst.dk/Udgiv/publikationer/2014/10/978-87-93178-96-0.pdf.

[Danish EPA, 2015b] Danish Environmental Protection Agency. Alternatives to perfluoroalkyl and polyfluoroalkyl substances (PFAS) in textiles. Available from: http://www2.mst.dk/Udgiv/publications/2015/05/978-87-93352-16-2.pdf.

[Davies, 2014] Davies, Alice. DURABLE WATER REPELLENCY - STUDY PHASE I. De Montfort University, Leicester, November 2014. Available at http://www.europeanoutdoorgroup.com/files/DWR-Study_Alice_Davies__digital_.pdf

[Decision POPRC-11/4] The Persistent Organic Pollutants Review

Committee.Pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds. Available from:

http://chm.pops.int/TheConvention/POPsReviewCommittee/ReportsandDecisions/tabid/3309/Default.aspx.

[Decision POPRC-12/3] The Persistent Organic Pollutants Review Committee (2016) Short-chain chlorinated paraffins. Available from: http://chm.pops.int/Default.aspx?tabid=5171

[Defoort et al., 2012] RAPPORT: PFOS Tullingegrundvattentäkt- NulägesanalysSlutrapport. Uppdragsnr: 10158302.

[Denmark, 2016] Danish EPA. Annex F form. Submitted 9 December 2016. Available from: http://chm.pops.int/TheConvention/POPsReviewCommittee/Meetings/POPRC12/POPRC12Followup/PFOAInfo/tabid/5453/Default.aspx.

[Dow Corning, 2007] DAIKIN and Dow Corning introduce Unidyne TG-5521 for fabric repellency and softness. Available from: http://www.dowcorning.com/content/news/dowcorning_daikin.asp.

[Drivon et al., 1996] Synthesis of n-perfluorooctyl bromide. United States Patent 5,545,776. Available at: http://patft.uspto.gov/netacgi/nph-

Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-

bool.html&r=1&f=G&l=50&co1=AND&d=PTXT&s1=5545776&OS=5545776&RS=5545776
JP3387099B2 or EP0673906

[DuPont, 2010] DuPontTMGenX processing aid for making fluoropolymer resin. Available from: https://www.chemours.com/Industrial_Bakery_Solutions/en_GB/assets/downloads/Chemours_GenX_Brochure_Final_07July2010.pdf

[ECHA, 2013a] Support Document for the identification of pentadecafluorooctanoic acid (PFOA) as a substance of very high concern because of its CMR and PBT properties. Adopted on 14 June 2013. Available from: https://echa.europa.eu/documents/10162/8059e342-1092-410f-bd85-80118a5526f5.

[ECHA, 2013b] Support Document for identification of Ammonium pentadecafluorooctanoate (APFO) as a substance of very high concern because of its CMR and PBT properties. Adopted 14 June 2013. Available from: https://echa.europa.eu/documents/10162/5e2c1e53-be98-4104-8b96-9cd88655a92a

[ECHA, 2014a] Annex XV Restriction Report. Proposal for a Restriction. Perfluorooctanoic acid (PFOA), PFOA salts and PFOA-related substances. 17 October 2014. Available from: https://echa.europa.eu/documents/10162/e9cddee6-3164-473d-b590-8fcf9caa50e7.

[ECHA, 2014b] Registered substances. Available from: https://echa.europa.eu/ de/information-on-chemicals/registered-substances. Cited by Wang et al., 2015.

[ECHA, 2015a] Background document to the Opinion on the Annex XV dossier proposing restrictions on Perfluorooctanoic acid (PFOA), PFOA salts and PFOA-related substances. 4 December 2015. Available from: https://echa.europa.eu/documents/ 10162/61e81035-e0c5-44f5-94c5-2f53554255a8.

[ECHA, 2015b] Committee for Risk Assessment (RAC) – Opinion on an Annex XV dossier proposing restrictions on Perfluorooctanoic acid (PFOA), PFOA salts and PFOA-related substances. 8 September 2015. Available from: https://echa.europa.eu/documents/10162/3d13de3a-de0d-49ae-bfbd-749aea884966.

[ECHA, 2015c] Committee for Risk Assessment (RAC) Committee for Socio-economic Analysis (SEAC) – Opinion on an Annex XV dossier proposing restrictions on Perfluorooctanoic acid (PFOA), PFOA salts and PFOA-related substances. Compiled version prepared by the ECHA Secretariat of RAC's opinion (adopted 8 September 2015) and SEAC's opinion (adopted 4 December 2015). Available from: https://echa.europa.eu/documents/10162/2f0dfce0-3dcf-4398-8d6b-2e59c86446be.

[ECHA, 2015d] Decision on Substance Evaluation pursuant to Article 46(1) of Regulation (EC) No 1907/2006 for reaction mass of mixed (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) phosphates, ammonium salt, CAS No not available (EC No 700-161-3.

[ECHA, 2017a] Guidance on Information Requirements and Chemical Safety Assessment. Chapter R.11: PBT/vPvB assessment. Version 3.0. Available at: https://echa.europa.eu/documents/10162/13632/information_requirements_r11_en.pdf

[ECHA, 2017b] MSC unanimously agrees that Bisphenol A is an endocrine disruptor. Available at: https://echa.europa.eu/sy/-/msc-unanimously-agrees-that-bisphenol-a-is-an-endocrine-disruptor

[Ellis et al., 2004] Degradation of fluorotelomer alcohols: a likely atmospheric source of perfluorinated carboxylic acids. Environ SciTechnol 38: 3316-21.

[European Commission, 2017] COMMISSION REGULATION (EU) 2017/1000 of 13 June 2017 amending Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards perfluorooctanoic acid (PFOA), its salts and PFOA-related substances, OJ L 150/14, 14.6.2017. Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R1000&from=EN

[EFSA, 2008] European Food Safety Authority. Scientific Opinion of the Panel on Contaminants in the Food chain on Perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA) and their salts. The EFSA Journal. 653: 1-131.

[EFSA, 2011a]European Food Safety Authority. EFSA Panel on food contact materials. Scientific opinion on the safety evaluation of the substance, perfluoro[(2-ethyloxy-ethoxy)acetic acid], ammonium salt, CAS No: 908020-52-0, for use in food contact materials. EFSA J 9(6):2183. Available from: http://onlinelibrary.wiley.com/doi/10.2903/j.efsa.2011.2183/abstract.

[EFSA, 2011b] European Food Safety Authority. EFSA panel on food contact materials. Scientific opinion on the safety evaluation of the substance, 3H-perfluoro-3-[(3-methoxy-propoxy)propanoic acid] ammoniumsalt, CAS No: 958445-44-8, for use in food contact materials. EFSA J. 9 (6), 1–11.

[EFSA, 2017] European Food Safety Authority. Scientific Panel on Contaminants in the Food Chain. Minutes of meeting 10b of the Working Group on perfluoroalkylated substances in food. Available from: https://www.efsa.europa.eu/sites/default/files/contamwgpfasfood.pdf

[Eggen et al., 2010] Municipal landfill leachates: A significant source for new and emerging pollutants. Sci Total Environ 408: 5147–57.

[Ellis et al, 2001] Thermolysis of fluoropolymers as a potential source of halogenated organic acids in the environment. Nature 412, 321–4.

[Ellis et al, 2003] The use of 19F NMR and mass spectrometry for the elucidation of novel fluorinated acids and atmospheric fluoroacid precursors evolved in the thermolysis of fluoropolymers. Analyst 128, 756–764. Doi: 10.1039/b212658c.

[Environment Canada Health Canada, 2008] Screening Assessment for the Challenge Octamethylcyclotetrasiloxane (D4) Chemical Abstracts Service Registry Number 556-67-2 Environment Canada Health Canada, November 2008, available at http://www.ec.gc.ca/ese-ees/default.asp?lang=En&n=2481B508-1

[EP 2008] European Parliament, Policy Department Economic and Scientific Policy (2008). Impact assessment on priority substances in water.

[Eschauzier et al., 2013] Perfluorinated alkylated acids in groundwater and drinking water: identification, origin and mobility. Sci Total Environ 458-460: 477-485.

[Euratex, 2016] European Apparel and Textile Confederation. Annex F form. Submitted 9 December 2016. Available from:

http://chm.pops.int/TheConvention/POPsReviewCommittee/Meetings/POPRC12/POPRC12Followup/PFOAInfo/tabid/5453/Default.aspx.

[European Commission, 2006] European Commission. 2006. Reference document on the best available techniques for waste incineration. Brussels. http://eippcb.jrc.ec.europa.eu/reference/

[EWG 2017] Mapping a Contamination Crisis - PFCs Pollute Tap Water for 15 Million People, Dozens of Industrial Sites. Bill Walker and Soren Rundquist; Environmental Working Group. Available at http://www.ewg.org/research/mapping-contamination-crisis#* (accessed on 29.6.2017)

[Exotextile News, 2015] DWR textile finish is renewably sourced. Available from: https://www.ecotextile.com/2015042921444/dyes-chemicals-news/dwr-textile-finish-is-renewably-sourced.html. (Online access: 07 March 2017)

[Feng et al. 2015] Characterization of the thermolysis products of Nafion membrane: a potential source of perfluorinated compounds in the environment. Sci Rep. 5, 9859. doi: 10.1038/srep09859

[FFFC, 2017] Fire Fighting Foam Coalition. Re: Additional information on firefighting foams in response to questions raised at the June 14 meeting on the PFHxA RMOA consultation. February 9, 2017.

[FFFC.Unknown] Best Practice Guidance for Use of Class B Firefighting Foams. Available from: http://www.fffc.org/images/bestpracticeguidance2.pdf

[FFFP, 2017] Technical information from the websites of several firefighting foam marketors, accessed on 16.5.2017: http://www.solbergfoam.com/Technical-Documentation/Foam-Concentrate-Data-Sheets/ReHealing-Foam/ICAO-Concentrates/RE-HEALING-RF6-F-2011007-3.aspx http://www.zerofiresystems.nl/en/products-and-services/repression/ecopol-100-fluorine-free-foam.html http://www.bio-ex.com/products/product/biofilm-fluorosynthetic-afff-foam-concentrate-effective-on-hydrocarbon-fires-9

[Filipovic et al., 2015] Historical usage of aqueous film forming foam: A case study of the widespread distribution of perfluoroalkyl acids from a military airport to groundwater, lakes, soils and fish. Chemosphere 129:39-45

[FluoroCouncil, 2014a] Assessment of POP Criteria for Specific Short-Chain Perfluorinated Alkyl Substances. January.

[FluoroCouncil, 2014b] Guidance for Best Environmental Practices (BEP) for the Global Apparel Industry – including focus on fluorinated repellent products. Available from:

https://fluorocouncil.com/PDFs/Guidance-for-Best-Environmental-Practices-BEP-for-the-Global-Apparel-Industry.pdf

[FlouroCouncil, 2016a]FluoroCouncil. Annex F form. Submitted 8 December 2016. Available from: http://chm.pops.int/TheConvention/POPsReviewCommittee/Meetings/POPRC12/POPRC12Followup/PFOAInfo/tabid/5453/Default.aspx.

[FluoroCouncil, 2016b] Assessment of POP Criteria for Specific Short-Chain Perfluorinated Alkyl Substances. Companion Report to FluoroCouncil's January 2014.

[FOEN, 2017] Additional Information in Relation to the Risk Management Evaluation of PFOA, its Salts, and Related Compounds. Prepared by ETH Zurich on behalf of the Swiss Federal Office for the Environment (FOEN). Available at

http://chm.pops.int/TheConvention/POPsReviewCommittee/Meetings/POPRC12/POPRC12Followup/PFOAComments/tabid/5950/Default.aspx

[FR 2010 01-27] Federal Register /Vol. 75, No. 17 /Wednesday, January 27, 2010 /Rules and Regulations. Environmental Protection Agency, 40 CFR Part 723, Premanufacture Notification Exemption for Polymers; Amendment of Polymer Exemption Rule to Exclude Certain Perfluorinated Polymers. Available at https://www.gpo.gov/fdsys/pkg/FR-2010-01-27/pdf/2010-1477.pdf

[FR 2016 05-25] Federal Register / Vol. 81, No. 101 / Wednesday, May 25, 2016 / Notices. Environmental Protection Agency, Lifetime Health Advisories and Health Effects Support Documents for Perfluorooctanoic Acid and Perfluorooctane Sulfonate. Available at https://www.epa.gov/sites/production/files/2016-05/documents/2016-12361.pdf

[Furutaka et al., 1997] Process for preparing perfluoroalkyl bromides. United States Patent 5,688,379. Available at:

https://worldwide.espacenet.com/publicationDetails/originalDocument?FT=D&date=19971118&DB =EPODOC&locale=en_EP&CC=US&NR=5688379A&KC=A&ND=5#

[Garcia et al. 2007] García A. N, Viciano N, Font R. 2007. Products obtained in the fuel-rich combustion of PTFE at high temperature. J Anal Appl Pyrolysis 80, 85–91.

[German Environment Agency, 2017] "Mobile" Chemikalien - wenn Filter nichts mehr nützen. Pressemitteilung Nr. 18 vom 4. Mai 2017. Available at

 $https://www.umweltbundesamt.de/sites/default/files/medien/2743/dokumente/2017_05_04_mobile_c hemikalien_-_wenn_filter_nichts_mehr_nuetzen_fuer_versand.pdf$

[German Environment Agency, 2016] HBM I values for Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS) in blood plasma. Statement of the German Human Biomonitoring Commission (HBM Commission). Announcement of the German Environment Agency (UBA). Available from:

https://www.umweltbundesamt.de/sites/default/files/medien/355/dokumente/hbm_i_values_for_pfoa_and_pfos.pdf

[German Environment Agency, 2016b] International workshop for authorities on the assessment of risks of short-chain per- and polyfluoroalkyl substances (PFASs), Workshop Proceedings. December 2016

[German Environment Agency, 2013] Environmentally responsible use of fluorinated firefighting foams. May 2013. Available from

https://www.umweltbundesamt.de/sites/default/files/medien/378/publikationen/fluorinated_firefighting_foams_schaumloeschmittel_engl._version_25.6.2013.pdf

[Gellrich et al., 2012] Behavior of perfluorinated compounds in soils during leaching experiments. Chemosphere 87: 1052-56.

[Gordon, 2011] Toxicological evaluation of ammonium 4,8-dioxa-3H-perfluorononanoate, a new emulsifier to replace ammonium perfluorooctanoate in fluoropolymer manufacturing. RegulToxicolPharmacol 59(1): 64-80.

[HELCOM 2013] Palette of measures on cost-effective management options to reduce discharges, emissions, and losses of hazardous substances. Part of the 2013 HELCOM Ministerial Declaration endorsed by the 2013 HELCOM Ministerial Meeting in October 2013. Available at http://helcom.fi/Documents/Ministerial2013/Ministerial%20declaration/

Adopted_endorsed%20documents/Palette%20of%20cost-

effective % 20 management % 20 options % 20 to % 20 reduce % 20 pollution % 20 by % 20 hazardous % 20 substances.pdf

[Hill et al., 2017] Substitution of PFAS chemistry in outdoor apparel and the impact on repellency performance. Chemosphere 181: 500-07.

[Hölzer J. et al., 2008] Biomonitoring of Perfluorinated Compounds in Children and Adults Exposed to Perfluorooctanoate-Contaminated Drinking Water. Environ Health Perspect 116(5):651-7. doi: 10.1289/ehp.11064.

[Hölzer J. et al., 2009] One-year follow-up of perfluorinated compounds in plasma of German residents from Arnsberg formerly exposed to PFOA-contaminated drinking water. Int J Hyg Environ Health. 212(5):499-504. doi: 10.1016/j.ijheh.2009.04.003.

[Holmquist et al., 2016] Properties, performance and associated hazards of state-of-the-art durable water repellent (DWR) chemistry for textile finishing, Environment International, Volume 91, 2016, Pages 251-264, ISSN 0160-4120. doi: 10.1016/j.envint.2016.02.035

[Houtz et al., 2016] Poly- and perfluoroalkyl substances in wastewater: Significance of unknown precursors, manufacturing shifts, and likely AFFF impacts, Water Res 95:142-149

[IPEN, 2016] International POPs Eliminiation Network. Annex F information. Submitted 9 December 2016. Available from:

http://chm.pops.int/TheConvention/POPsReviewCommittee/Meetings/POPRC12/POPRC12Followup/PFOAInfo/tabid/5453/Default.aspx.

[I&P Europe, 2016a] Imaging & Printing Association Europe. Annex F form. Submitted 24 November 2016. Available from:

http://chm.pops.int/TheConvention/POPsReviewCommittee/Meetings/POPRC12/POPRC12Followup/PFOAInfo/tabid/5453/Default.aspx.

[I&P Europe 2016b] Imaging & Printing Association Europe.Cover letter.Submitted 24 November 2016. Available from:

http://chm.pops.int/The Convention/POPs Review Committee/Meetings/POPRC12/POPRC12Followup/PFOAInfo/tabid/5453/Default.aspx.

[Ishibashi et al., 2007] Estrogenic effects of fluorotelomer alcohols for human estrogen receptor isoforms alpha and beta in vitro.Biol Pharm Bull 30: 1358-59.

[ISO 2009] International Organization for Standardization.ISO 25101:2009 Water quality -- Determination of perfluorooctanesulfonate (PFOS) and perfluorooctanoate (PFOA) -- Method for unfiltered samples using solid phase extraction and liquid chromatography/mass spectrometry. See: https://www.iso.org/standard/42742.html

[Iwai, 2011] Toxicokinetics of ammonium perfluorohexanoate. Drug ChemToxicol 34(4): 341-6.

[Japan, 2016] Global Environment Division, Ministry of Foreign Affairs. Annex F form. Submitted 9 December 2016. Available from:

http://chm.pops.int/TheConvention/POPsReviewCommittee/Meetings/POPRC12/POPRC12Followup/PFOAInfo/tabid/5453/Default.aspx.

[Jiang et al., 2015] Perfluoroalkyl acids (PFAAs) with isomer analysis in the commercial PFOS and PFOA products in China. Chemosphere 127: 180-7.

[Johansson et al. 2017] Water-to-air transfer of branched and linear PFOA: Influence of pH, concentration and water type. Jana H. Johansson, Hong Yan, Urs Berger, Ian T. Cousins. Article in press.Emerging Contaminants xxx (2017) 1-8. http://dx.doi.org/10.1016/j.emcon.2017.03.001

[Kaiser et al., 2005] Vapor pressures of perfluorooctanoic, -nonanoic, -decanoic, -undecanoic, and-dodecanoic acids. J ChemEng Data 50: 1841-3.

[Kauck and Diesslin, 1951] Some properties of perfluorocarboxylic acids.IndEnfChem 43, 2332-4.

[KEMI, 2017] PFAS-nätverk. 2017. Available from http://www.kemi.se/om-kemikalieinspektionen/verksamhet/handlingsplan-for-en-giftfri-vardag/hogfluorerade-amnen-pfas/pfas-natverk (in Swedish)

[Keutel and Koch, 2016] Untersuchung fluortensidfreier Löschmittel und geeigneter Löschverfahren zur Bekämpfung von Bränden häufig verwendeter polarer (d. h. schaumzerstörender) Flüssigkeiten. Brandschutzforschung der Bundesländer. Forschungsbericht 187 von Karola Keutel und Mario Koch. Available at https://idf.sachsen-anhalt.de/fileadmin/Bibliothek/Politik_und_Verwaltung/MI/IDF/IBK/Dokumente/Forschung/Fo_Publikationen/imk_ber/bericht_187.pdf

[Kirk, 1995] Encyclopedia of Chemical Technology. 14 th ed. Volume 1: New York, NY. John Wiley and Sons.1991-Present., p. V11 551.

[Kissa, 2001] Fluorinated Surfactants and Repellents. Marcel Dekker. New York.

[Klein, 2012] Comments on the draft technical paper on the identification and assessment on alternatives to the use of perfluorooctane sulfonic (PFOS) acid in open applications.POPRC7 Follow-up.Published by the Stockholm Convention Secretariat.

[Klein 2013] Fire Fighting Foam – Disposal, Remediation and Lifetime Costs.By Roger A. Klein. Industrial Fire Journal, Winter 2013. Available at

http://www.hemmingfire.com/news/fullstory.php/aid/1961/Foam:_the_cost__96_and_still_counting!.html

[Kleiner and Jho, 2009] Recent developments in 6:2 fluorotelomer surfactants and foam stabilizers.4th Reebok Foam Seminar. 6-7 July 2009. Bolton, UK..[Krippner et al., 2014] Krippner J, Brunn H, Falk S, Georgii S, Schubert S, Stahl T (2014) Effects of chain length and pH on the uptake and distribution of perfluoroalkyl substances in maize (Zea mays), Chemosphere 94:85-90

[Krippner et al., 2015] Accumulation Potentials of Perfluoroalkyl Carboxylic Acids (PFCAs) and Perfluoroalkyl Sulfonic Acids (PFSAs) in Maize (Zea mays). J Agric Food Chem 63: 3646–3653

[LaSalle, 2016] Defence per- and poly-fluoroalkyl Substances (PFAS) environmental Management Preliminary Sampling Program. Final Report September 2016. GHD, Available at http://www.defence.gov.au/ID/PFOSPFOA/_master/docs/PSPReports/PreliminarySamplingProgram ReportMainReportLessAppendices.pdf

[Li, 2009] Toxicity of perfluorooctane sulfonate and perfluorooctanoic acid to plants and aquatic invertebrates. Environ Toxicol 24:95–101.

[Lide, 2003] CRC Handbook of Chemistry and Physics.CRC Press.

[Liu et al., 2010a] Aerobic biodegradation of [14C] 6:2 fluorotelomer alcohol in a flow-through soil incubation system. Chemosphere 80: 716-23.

[Liu et al., 2010b] 6-2 Fluorotelomer alcohol aerobic biodegradation in soil and mixed bacterial culture. Chemosphere 78: 437-44.

[Lindemann et al., 2012] Effects of per- and polyfluorinated compounds on adult rat testicular cells following in vitro exposure.ReprodToxicol 33: 531-7.

[Liu et al. 2017] Liu Z, Lu Y, Wang P, Wang T, Liu S, Johnson AC, Sweetman AJ, Baninla Y (2017) Pollution pathways and release estimation of perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) in central and eastern China Sci Total Environ. 2017 Feb 15;580:1247-1256. doi: 10.1016/j.scitotenv.2016.12.085.

[Loi et al., 2013] Detection of commercial fluorosurfactants in Hong Kong marine environment and human blood: a pilot study. Environ Sci Tech 47(9): 4677-85.

[Loos et al., 2007] Polar herbicides, pharmaceutical products, perfluorooctanesulfonate (PFOS), perfluorooctanoate (PFOA), and nonylphenol and its carboxylates and ethoxylates in surface and tap waters around Lake Maggiore in Northern Italy. Anal BioanalChem 387: 1469-78.

[Madrid Statement, 2015] The Madrid Statement on Poly- and Perfluoroalkyl Substances (PFASs). Environmental Health Perspectives, Volume 123, Number 5, May 2015. Available at https://ehp.niehs.nih.gov/wp-content/uploads/123/5/ehp.1509934.alt.pdf

[Maras et al., 2006] Estrogen-like properties of fluorotelomer alcohols as revealed by mcf-7 breast cancer cell proliferation. Environ Health Perspect 114:100-105.

[Marchionni et al., 2010] Patent: method for manufacturing fluoropolymers in the presence of cyclic fluorosurfactants with low bioaccumulation/biopersistence. WO 2010003929.

[Martin et al., 2009] Bioactivation of fluorotelomer alcohols in isolated rat hepatocytes. Chem-Biol Interact 177: 196-203.

[Martin et al., 2006]Martin, J.W., Ellis, D.A., Mabury, S.A., Hurley, M., Wallington, T., 2006. Atmospheric chemistry of perfluoroalkanesulfonamides: kinetic and product studies of the OH radical and Cl atom initiated oxidation of N-ethyl perfluorobutanesulfonamide. Environ.Sci. Technol. 40 (3), 864–872.

[Mitchell et al., 2011] Toxicity of fluorotelomer carboxylic acids to the algae Pseudokirchneriellasubcapitata and Chlorella vulgaris, and the amphipod Hyalellaazteca.

Ecotoxicology and Environmental Safety 74: 2260-2267. [Naturvårderverket, 2016] Högfluoreradeämnen (PFAS) ochbekämpningsmedel.Rapport 6709. ISBN 978-91-620-6709-0.

[NFA, 2017] National Food Agency, 2017, Riskhantering - PFAS i dricksvatten och fisk. Available from: https://www.livsmedelsverket.se/livsmedel-och-innehall/oonskade-amnen/miljogifter/ PFAS-poly-och-perfluorerade-alkylsubstanser/riskhantering-pfaa-i-dricksvatten/ (in Swedish)

[NICNAS 2017] Environment Tier II Assessment for Perfluorooctanoic Acid (PFOA) and its Direct Precursors. Last update 14 February 2017. Available from https://www.nicnas.gov.au/ chemical-information/imap-assessments/imap-assessments/tier-ii-environment-assessments/ perfluorooctanoic-acid-and-its-direct-precursors#_ENREF_2 (accessed on 2.3.2017)

[Norway, 2016] Norwegian Environment Agency. Annex F form. Submitted 9 December 2016. Available from:

http://chm.pops.int/TheConvention/POPsReviewCommittee/Meetings/POPRC12/POPRC12Followup/PFOAInfo/tabid/5453/Default.aspx.

[NTP, 2016] NTP Monograph on immunotoxicity associated with exposure to perfluorooctanoic acid (PFOA) or perfluorooctane sulfonate (PFOS). National Toxicology Program.U.S. Department of Health and Human

Services.https://ntp.niehs.nih.gov/ntp/ohat/pfoa pfos/pfoa pfosmonograph 508.pdf

[NRL, 2016] Evaluating the Difference in Foam Degradation between Fluorinated and Fluorine-free Foams for Improved Pool Fire Suppression. Katherine Hinnant, Ramagopal Ananth, Michael Conroy, Bradley Williams. Naval Research Laboratory. Presented at the 2016 ACS Symposium. [Oda et al., 2007] Negative results of umu genotoxicity test of fluorotelomer alcohols and perfluorinated alkyl acids. Environ Health Perspect 12:217-9.

[Obermeier and Stefaniak, 1997] Patent: Process for the recuperation of fluorinated carboxylic acids. Patent No. EP 0632009 B1.

[OECD 2010] OECD Environment, Health and Safety Publications Series on Emission Scenario Documents No. 9,EMISSION SCENARIO DOCUMENT ON PHOTORESIST USE IN SEMICONDUCTOR MANUFACTURING(as revised in 2010). Available from http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=env/jm/mono(2004)14/rev1&doclanguage=en

[OECD, 2013] OECD/UNEP Global PFC Group.Synthesis paper on per- and polyfluorinated chemicals (PFCs).Environmental, Health and Safety, Environmental Directorate.OECD.

[OECD, 2015] Risk Reduction Approaches for PFASs – A Cross-Country Analysis. OECD Environment, Health and Safety Publications Series on Risk Management.No. 29. Available from: http://www.oecd.org/chemicalsafety/risk-management/Risk_Reduction_Approaches%20for%20PFASS.pdf.

[OECD, 2017] Organisation for Economic Co-operation and Development.OECD portal on perfluorinated chemicals. Available from: https://www.oecd.org/ehs/pfc/#Definitions

[Oosterhuis et al, 2017] Frans Oosterhuis, Roy Brouwer, Martien Janssen, Julia Verhoeven, Cees Luttikhuizen. Towards a Proportionality Assessment of Risk Reduction Measures Aimed at Restricting the Use of Persistent and Bioaccumulative Substances. Integr Environ Assess Manag 2017:1–13, DOI: 10.1002/ieam.1949. Available at

http://onlinelibrary.wiley.com/doi/10.1002/ieam.1949/epdf

[OSPAR, 2006] Perfluorooctane Sulphonate PFOS. OSPAR Commission 2005 (2006 update). OSPAR Background Document on Perfluorooctane Sulphonate. Hazard substance series, 269/2006.

[P05, 2012] Durable Water and Soil repellent chemistry in the textile industry – a research report.P05 Water Repellency Project.Version 1.0. November 2012. Available at https://outdoorindustry.org/pdf/FINAL_ZDHC_P05_DWR%20Research_Nov2012.pdf

[Pieri et al., 2011] Patent: Method for manufacturing fluoropolymers by polymerization using fluorinated surfactants. WO 2011073337.

[Plumlee et al. 2009] Plumlee, M.H., McNeill, K., Reinhard, M., 2009. Indirect photolysis of perfluorochemicals: hydroxyl radical-initiated oxidation of N-ethyl perfluoroctane sulfonamido acetate (N-EtFOSAA) and other perfluoroalkanesulfonamides. Environ. Sci. Technol. 43 (10), 3662–3668.[Poulsen et al., 2005] Danish Ministry of Environment.More environmentally friendly alternatives to PFOS-compounds and PFOA. Available from:

http://www2.mst.dk/common/Udgivramme/Frame.asp?http://www2.mst.dk/udgiv/Publications/2005/87-7614-668-5/html/default_eng.htm.

[Prevedouros et al., 2006] Sources, Fate and Transport of Perfluorocarboxylates. Environ Sci Technol. 40(1) 32-44.

[Prokop et al., 1989] Analysis of the products from the electrochemical fluorination of octanoyl chloride. Journal of Fluorine Chemistry 43: 277-90.

[Pyua, 2017] http://www.pyua.de/index.php/news/climaloop. (Online access: 26 January 2017).

[Queensland Gov., 2016a] Environmental Management of Firefighting Foam Policy. 7 July 2016

[Queensland Gov., 2016b] Environmental Management of Firefighting Foam Policy. Explanatory Notes, Revision 2. State of Queensland. Revision 2.2 – July 2016. Available at http://www.ehp.qld.gov.au/assets/documents/regulation/firefighting-foam-policy-notes.pdf

[Renner, 2006] The long and the short of perfluorinated replacements. Environ SciTechnol 40(1): 12-3.

[Ritter, 2010] Fluorochemicals go short. ChemEng News 88(5): 12-7.

[RPA, 2004] Perfluorooctane Sulphonate - Risk reduction strategy and analysis of advantages and drawbacks. Risk & Policy Analysts Limited (RPA) in association with BRE Environment. Final Report prepared for Department for Environment, Food and Rural Affairs and the Environment Agency for England and Wales.

Russell, M.H., Berti, W.R., Szostek, B., Buck, R.C., 2008. Investigation of the biodegradation potential of a fluoroacrylate polymer product in aerobic soils. Environ SciTechnol 42, 800-807.

[Schlummer et al., 2015] Emission of perfluoroalkyl carboxylic acids (PFCA) from heated surfaces made of polytetrafluoroethylene (PTFE) applied in food contact materials and consumer products. Chemosphere 129, 46-53.

[Serbia, 2016] Republic of Serbia. Annex F form. Submitted 9 December 2016. Available from: http://chm.pops.int/TheConvention/POPsReviewCommittee/Meetings/POPRC12/POPRC12Followup/PFOAInfo/tabid/5453/Default.aspx.

[SIA, 2016] Semiconductor Industry Association. Annex F form. Submitted 9 December 2016. Available from:

http://chm.pops.int/TheConvention/POPsReviewCommittee/Meetings/POPRC12/POPRC12Followup/PFOAInfo/tabid/5453/Default.aspx.

[Simon and Kaminsky, 1998] Simon CM, Kaminsky W. 1998. Chemical recycling of polytetrafluoroethylene by pyrolysis. Poly Degrad Stabil 62, 1–7.

[Skutlarek D. et al., 2006] Perfluorinated surfactants in surface and drinking waters. Environ SciPollut Res Int. 13(5):299-307.

[Spada and Kent, 2011] Patent: Process for manufacturing a dispersion of a vinylidene fluoride polymer. WO 2011073254.

[Stahl et al., 2009] Carryover of perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) from soil to plants. Arch Environ ContamToxicol 57:289-98.

[State of New Jersey, 2017] Perfluorooctanoic Acid (PFOA) in Drinking Water. Devision of Water Supply and Geoscience.http://www.nj.gov/dep/watersupply/dwc_quality_pfoa.html

[StatensForureningstilsyn, 2004] Norwegian Pollution Control

Authority.BrukenafPerFluorAlkylStoffer (PFAS) i produkter i Norge – Materialstromsanalyse. English title: Use of perfluoralkyl substances (PFAS) in products in Norway – Mass Flow analysis.

[Stockholm Convention, 2014] Publication.POPs in Articles and Phasing-Out Opportunities. Available from: http://poppub.bcrc.cn/col/1408693347502/index.html. (Online access: 07 March 2017).

[Sulzbach et al., 1999] Sulzbach RA, Kowatsch W, Steidl D. 1999. Patent: Recovery of highly fluorinated carboxylic acids from the gas phase. Patent No. US 5990330 A

[Sulzbach et al., 2001] Sulzbach RA, Grasberger R, Brandenburg RA. 2001. Patent: Recovery of highly fluorinated carboxylic acids from the gaseous phase. Patent No. US 6245923 B1

[Swedish Chemicals Agency, 2013] Brandskumsommöjligförorenareavdricksvattentäkter. PM 5/2013. Available from: https://www.kemi.se/global/pm/2013/pm-5-13.pdf.

[Swedish Chemicals Agency, 2015] Occurrence and use of highly fluorinated substances and alternatives. 2015.

[Swedish Chemicals Agency] PFAS-nätverk. Available from: http://www.kemi.se/om-kemikalieinspektionen/verksamhet/handlingsplan-for-en-giftfri-vardag/hogfluorerade-amnen-pfas/pfas-natverk.

[Swedish Chemicals Agency, 2016a] Förslag till nationella regler för högfluorerade ämnen i brandsläckningsskum. KemI Rapport 1/16. ISSN 0284-1185.

[Swedish Chemicals Agency, 2016b] Strategy for reducing the use of highly fluorinated substances, PFASs.Report 11/16. ISSN 0284-1185.

[Swedish Chemicals Agency, 2016c] Rekommendationer för minskad användning av brandsläckningsskum. Available from: http://www.kemi.se/global/broschyrer/rekommendationer-forbrandskum.pdf

[Taylor 2009] Taylor PH. 2009. ECA incineration testing program: laboratory-scale incineration testing of fluoropolymers; University of Dayton Research Institute. Pp. 1–84.

[Taylor 2014]Investigation of waste incineration of fluorotelomer-based polymers as a potential source of PFOA in the environment.Chemosphere. 2014 Sep;110:17-22. doi: 10.1016/j.chemosphere.2014.02.037. Epub 2014 Apr 5.

[The Intercept, 2016] Available from: https://theintercept.com/2016/03/03/how-dupont-concealed-the-dangers-of-the-new-teflon-toxin/. (Online access: 2 March 2017).

[The Senate Foreign Affairs, Defence and Trade, 2016] Firefighting foam contamination Part B – Army Aviation Centre Oakey and other Commonwealth, state and territory sites. Available at: http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Foreign_Affairs_Defence_and_T rade/ADF facilities/Report part B.

[TM, 2016] Confederation of the German Textile and Fashion Industry. Annex F form. Submitted 9 December 2016. Available from:

http://chm.pops.int/The Convention/POPs Review Committee/Meetings/POPRC12/POPRC12Followup/PFOAInfo/tabid/5453/Default.aspx.

[UBA, 2016] HBM I values for Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS) in blood plasma. Statement of the German Human Biomonitoring Commission (HBM Commission). Announcement of the German Environment Agency (UBA). Available at: https://www.umweltbundesamt.de/sites/default/files/medien/355/dokumente/hbm_i_values_for_pfoa_and_pfos.pdf

[UNEP, 2017] Guidance on best available techniques and best environmental practices for the use of perfluorooctane sulfonic acid (PFOS) and related chemicals listed under the Stockholm Convention on Persistent Organic Pollutants. Available from:

http://chm.pops.int/Implementation/NIPs/Guidance/GuidanceonBATBEP for the use of PFOS/tabid/3170/Default.aspx.

[UNEP/POPS/POPRC.5/10/Add.1] Persistent Organic Pollutants Review Committee (2009). Addendum- General guidance on considerations related to alternatives and substitutes for listed persistent organic pollutants and candidate chemicals. Available from:

http://chm.pops.int/The Convention/POPs Review Committee/Meetings/POPRC5/POPRC5 Report and Decisions/tabid/719/Default.aspx.

[UNEP/POPS/POPRC.11/5] Persistent Organic Pollutants Review Committee (2015). Proposal to list pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds in Annexes A, B and/or C to the Stockholm Convention on Persistent Organic Pollutants. Available from: http://chm.pops.int/poprc11.

[UNEP/POPS/POPRC.12/11] Persistent Organic Pollutants Review Committee (2016).Report of the Persistent Organic Pollutants Review Committee on the work of its twelfth meeting. Available from: http://chm.pops.int/poprc12.

[UNEP/POPS/POPRC.12/11/Add.2] Persistent Organic Pollutants Review Committee (2016). Addendum- Risk profile on pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA,

perfluorooctanoic acid), its salts and PFOA-related compounds. Available from: http://chm.pops.int/poprc12.

[UNEP/POPS/POPRC.12/11/Add.3] Persistent Organic Pollutants Review Committee (2016) Addendum- Risk management evaluation on short-chain chlorinated paraffins. Available from: http://chm.pops.int/poprc12.

[UNEP/POPS/POPRC.12/INF/15/Rev.1] Persistent Organic Pollutants Review Committee (2016). Consolidated guidance on alternatives to perfluorooctane sulfonic acid and its related chemicals. Available from: http://chm.pops.int/poprc12.

[UNEP/POPS/POPRC.12/INF/5] Persistent Organic Pollutants Review Committee (2016). Additional information related to the draft risk profile on pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds. Available from: http://chm.pops.int/poprc12.

[UNEP/POPS/POPRC.13/INF/6] PFOA, its salts and PFOA-related compounds, Background document to therisk management evaluation, 2017. Available from: http://chm.pops.int/poprc13.

[UNEP/POPS/POPRC.13/INF/6/Add.1] PFOA, its salts and PFOA-related compounds, Background document to the risk management evaluation, Non-exhaustive list of substances covered or not covered by the risk management evaluation, 2017. Available from: http://chm.pops.int/poprc13.

[USEPA, 2012] US Environmental Protection Agency.New Chemical Review of Alternatives for PFOA and Related Chemicals. 2012. Available from: http://www.epa.gov/oppt/pfoa/pubs/altnewchems.html.

[USEPA, 2015] United States Environmental Protection Agency, PFOA Stewardship Program. Available from: http://www.epa.gov/assessing-and-managing-chemicals-under-tsca/ 20102015-pfoa-stewardship-program.

[USEPA 2016] United States Environmental Protection Agency. Fact Sheet PFOA & PFOS Drinking Water Health Advisories. 2016. Available from: https://www.epa.gov/sites/production/files/ 2016-06/documents/drinkingwaterhealthadvisories_pfoa_pfos_updated_5.31.16.pdf

[van der Putte et al., 2010] Analysis of the risk arising from the industrial use of Perfluorooctanoic Acid (PFOA) and Ammonium Perfluorooctanoate (AFPO) and from their use in consumer articles. Evaluation of the risk reduction measures for potential restrictions on the manufacture, placing on the market and use of PFOA and APFO. European Commission.DG Enterprise and Industry. Report TOX08.7049.FR03.

[Vanparys et al., 2006] Flow cytometric cell cycle analysis allows for rapid screening of estrogenicity in MCF-7 breast cancer cells. Toxicol.in vitro 20: 1238-48.

[Vermont Department of Health, 2017] PFOA in Drinking Water 2016. In: Public Health Response; Environmental Contaminations. http://www.healthvermont.gov/response/environmental/pfoadrinking-water-2016

[Vierke et al., 2013] Estimation of the acid dissociation constant of perfluoroalkyl carboxylic acids through an experimental investigation of their water-to-air transport. Environ SciTechnol 47: 11032-9.

[VTB SWT, 2016] VTB- Bavarian Textile and apparel association in cooperation with SWT- Southwestern textile association. Annex F form. Submitted 9 December 2016. Available from: http://chm.pops.int/TheConvention/POPsReviewCommittee/Meetings/POPRC12/POPRC12Followup/PFOAInfo/tabid/5453/Default.aspx.

[Wang et al., 2013] Fluorinated alternatives to long-chain perfluoroalkyl carboxylic acids (PFCAs), perfluoroalkane sulfonic acids (PFSAs) and their potential precursors. Environ Int 60: 242-8.

[Wang et al., 2014a] Global Emission Inventories for C4-C14 Perfluoroalkyl Carboxylic Acid (PFCA) Homologues from 1951 to 2030, Part I: Production and Emission from Quantifiable Sources. Environ Int 70: 62-75.

[Wang et al., 2014b] Global emission inventories for C4-C14 Perfluoroalkyl Carboxylic Acid (PFCA) Homologues from 1951 to 2013, Part II: The remaining pieces of the puzzle. Environ Int 69: 166-76.

[Wang et al., 2015] Hazard assessment of fluorinated alternatives to long-chain perfluoroalkyl acids (PFAAs) and their precursors: Status quo, ongoing challenges and possible solutions. Environ Int 75: 172-79.

[Wang et al., 2017] A Never-Ending Story of Per- and Polyfluoroalkyl Substances (PFASs)? Environ. Sci. Technol. 2017, 51, 2508–2518

[Washburn et al., 2005] Exposure assessment and risk characterization for perfluorooctanoate in selected consumer articles. Environ SciTechnol 39: 3904-10.

[Wilhelm M. et al, 2009] Preliminary observations on perfluorinated compounds in plasma samples (1977–2004) of young German adults from an area with perfluorooctanoate-contaminated drinking water.Int J Hyg Environ Health. 212(2):142-5. doi: 10.1016/j.ijheh.2008.04.008

[Wilhelm M. et al., 2010] Occurrence of perfluorinated compounds (PFCs) in drinking water of North Rhine-Westphalia, Germany and new approach to assess drinking water contamination by shorter-chained C4–C7 PFCs.Int J Hyg Environ Health. 213(3):224-32.

[Williams et al., 2011] Extinguishment and Burnback Tests of Fluorinated and Fluorine-free

Firefighting Foams with and without Film Formation. In Suppression, Detection and Signalling

Research and Applications- A Technical Working Conference, Orlando, Florida USA, 2011, pp. 1-

15 available at http://www.nfpa.org/news-and-research/fire-statistics-and-reports/research-reports/proceedings/2011-proceedings/supdet-2011.

[Wilson, 2016] Can F3 agents take the fire security heat?. Mike Wilson. International Airport Review 20(6).

[WSP, 2014] WSP Canada Inc. Effectiveness of Conventional and Advanced In Situ Leachate Treatment. Report prepared for Environment Canada (Call for Tender K2AA0-13-9013).

[Xu et al., 2011] A novel fluorocarbon surfactant: synthesis and application in emulsion polymerization of perfluoroalkyl methacrylates. Paint Coat Ind 41: 17-21.

[Xu et al., 2013] Determination of PFOS and PFOA in food matrix of animal origin using UHPLC hyphenated triple quadrupole tandem mass spectrometry. Application Note. Agilent Technologies. Availablefrom: https://www.agilent.com/cs/library/applications/5991-1948EN.pdf.

[Yamada et al., 2005] Yamada T, Taylor PH, Buck RC, Kaiser MA, Giraud RJ. 2005. Thermal degradation of fluorotelomer treated articles and related materials. Chemosphere 61, 974–84.

[Yu et al., 2008] Yu K, Song X, Cui L, Han S. 2008. Patent: 分散法聚四氟乙烯树脂生产中全氟辛酸铵的回收处理方法。[Method for recovering and treating perfluoro ammonium caprylate for PTFE resin production by dispersion method.] Patent No. CN 100376537 C. [in Chinese]

[Zhao et al., 2012] Distribution and long-range transport of polyfluoroalkyl substances in the Arctic, Atlantic Ocean and Antarctic coast. Environmental Pollution 170 (2012) 71-77.

[Zhao et al., 2013a] 6:2 fluorotelomer alcohol biotransformation in an aerobic river sediment system. Chemosphere 90: 203-9.

[Zhao et al., 2013b] 6:2 Fluorotelomer alcohol aerobic biotransformation in activated sludge from two domestic wastewater treatment plants. Chemosphere 92: 646-70.

UNITED NATIONS







Food and Agriculture Organization of the United Nations RC

UNEP/FAO/RC/CRC.13/19



Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

Distr.: General 24 November 2017

Original: English

Chemical Review Committee Thirteenth meeting Rome, 23–27 October 2017

Report of the Chemical Review Committee on the work of its thirteenth meeting

I. Opening of the meeting

- 1. The thirteenth meeting of the Chemical Review Committee under the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade was held at the headquarters of the Food and Agriculture Organization of the United Nations (FAO), Viale delle Terme di Caracalla, Rome, from 23 to 26 October 2017. The meeting was opened at 2.05 p.m. on Monday, 23 October 2017, by the Chair of the Committee, Mr. Jürgen Helbig (Spain).
- 2. Opening remarks were delivered by Mr. Rolph Payet, Executive Secretary of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention and the Stockholm Convention on Persistent Organic Pollutants, and Mr. William Murray, Executive Secretary of the Rotterdam Convention.
- 3. Mr. Payet, in his remarks, welcomed the members of the Committee to the meeting and, describing the Committee's mandate as a key pillar of the Rotterdam Convention, said that its work was crucial to information and knowledge-sharing on hazardous chemicals and pesticides; not only did it enable informed decision-making in international trade but it also contributed to global efforts to implement the wider chemicals and waste management agenda, including in addressing human and environmental health, sustainable development, food security and socioeconomic considerations.
- 4. Turning to the agenda, he said that the Committee had an unprecedented 13 chemicals and 2 severely hazardous pesticide formulations to review, which reflected the growing concerns about the potential risks posed by hazardous chemicals and pesticides, and that it would be expected to address the vulnerability of the countries lacking the adequate infrastructure to monitor and, where necessary, regulate their import and use of those chemicals and pesticides, bearing in mind the continued disparity between developed and developing countries in terms of the capacity to undertake scientifically sound risk evaluations for decision-making. In that regard, he drew attention to the development of the Final Regulatory Action Evaluation Toolkit, which was designed to assist the designated national authorities, especially from developing countries, to take scientifically sound final regulatory actions on hazardous chemicals by facilitating user-friendly access to, among other things, the technical information contained in more than 400 notifications of final regulatory action that had met the criteria in Annex I to the Convention. These notifications were for more than 220 chemicals received by the Secretariat from Parties in a single prior informed consent region that were currently awaiting another notification from a different prior informed consent region for review by the Committee.
- 5. Drawing attention also to the FAO Pesticide Registration Toolkit, he said that a series of subregional consultative meetings in various prior informed consent regions would continue to provide designated national authorities with guidance on the use of such information and tools.

- 6. In addition to ensuring the effectiveness of the Convention through information-sharing on the chemicals recommended for listing, the work of the Committee at its current meeting, he said, would also contribute to the global high-level political commitment on pollution to be negotiated at the third session of the United Nations Environment Assembly, to be held in Nairobi in December 2017, where the sound management of chemicals and wastes was one of the six sub-themes constituting the session's overarching vision of a "pollution-free planet".
- 7. The Basel, Rotterdam and Stockholm conventions, he said, were successful examples of the global community's commitment to that end and to achieving the Sustainable Development Goals.
- 8. In his remarks, Mr. Murray said that, as part of its continuing efforts to facilitate the preparation and submission of the notifications of final regulatory action that formed the basis of the Committee's work, the Secretariat had not only developed the Final Regulatory Action Evaluation Toolkit but was also working with the FAO Pest and Pesticide Management Group to strengthen evidence-based decision-making pertaining to national regulatory processes for pesticides. In that context, national capacity-building contributed substantially to sound chemicals management and was a prerequisite to enabling Parties to take full advantage of the protection afforded through such global instruments as the Rotterdam and Stockholm conventions. With reference to the comprehensive set of technical guidelines developed by FAO with the aim of facilitating the management of pesticides throughout their life cycle, he highlighted the FAO Pesticide Registration Toolkit, saying that it served as a decision support system for pesticide registrars and additionally provided links to a variety of pesticide-specific information sources.
- 9. FAO moreover aimed to expand to a further eight countries in the West African subregion its support for the introduction of a common pesticide registration regime focused on harmonizing pesticide registration, improving post-registration control and promoting alternatives to hazardous pesticides. Indeed, the notifications to be reviewed during the current meeting indicated that decision-making in the ten West African countries now employing such a regime had so improved as to achieve a global impact. For its part, the Secretariat was documenting the related registration decisions and the identification of alternatives to chemicals covered under the Convention. It was furthermore working with FAO on initiatives for facilitating pesticide management in Parties in the Caribbean, southern African and Pacific regions.
- 10. Noting that the Committee's recommendations to the Conference of the Parties were subject to intense international scrutiny, he stressed the importance of openness, transparency, critical analysis and reasoned decision-making in its work and of taking on board lessons learned from the review of individual notifications so as to improve guidance for Parties, facilitate its own future work and, above all, ensure clear, coherent and consistent decision-making. It would also be useful, he suggested, to identify examples for inclusion in the updated version of its Handbook of Working Procedures and Policy Guidance. He wished the Committee a productive meeting, adding that he would be following its work with great interest.

II. Organizational matters

A. Officers

11. The following officers served on the Bureau of the Committee during the meeting:

Chair: Mr. Helbig

Vice-Chairs: Mr. Malverne Spencer (Antigua and Barbuda),

Ms. Jinye Sun (China)

Ms. Magdalena Frydrych (Poland)

Mr. Nadjo N'Ladon (Togo)

12. Ms. Frydrych served also as Rapporteur.

B. Attendance

13. The following members of the Committee attended the meeting: Mr. Spencer (Antigua and Barbuda), Ms. Anahit Aleksandryan (Armenia), Mr. Jack Holland (Australia), Mr. Peter Ayuk Enoh (Cameroon), Mr. Jeffrey Goodman (Canada), Ms. Sun (China), Mr. Ahmed Houssein Bouh (Djibouti), Ms. Elsa Ferreras de Sánchez (Dominican Republic), Ms. Parvoleta Angelova Luleva (Germany), Mr. Ram Bharosey Lal (India), Mr. Arsonina Bera (Madagascar), Mr. Mohd Fauzan Yunus (Malaysia), Ms. Amal Lemsioui (Morocco), Ms. Leonarda Christina van Leeuwen (Netherlands),

Ms. Alimatou Abdou Douki (Niger), Ms. Marit Randall (Norway), Ms. Frydrych (Poland), Ms. Tatiana Tugui (Republic of Moldova), Mr. Helbig (Spain), Ms. Champa Magamage (Sri Lanka), Ms. Nuansri Tayaputch (Thailand), Mr. N'Ladon (Togo), Mr. Viliami Manu (Tonga), Ms. Johanna Peltola-Thies (United Kingdom of Great Britain and Northern Ireland) and Mr. Shehab Qaid Al-Shameri (Yemen).

- 14. The members of the Committee from Argentina, Ethiopia, Honduras, Pakistan, Panama, Sudan, were unable to attend.
- 15. The following States were represented as observers: Brazil, Canada, Chile, China, Finland, Germany, India, Japan, Kenya, Latvia, New Zealand, Norway, Poland, Serbia, South Africa, United States of America.
- 16. Non-governmental organizations were also represented as observers. The names of those organizations are included in the list of participants (UNEP/FAO/RC/CRC.13/INF/38).

C. Adoption of the agenda

- 17. In considering the sub-item, the Committee had before it the provisional agenda (UNEP/FAO/RC/CRC.13/1) and the annotations to the provisional agenda (UNEP/FAO/RC/CRC.13/1/Add.1).
- 18. The Committee adopted the following agenda on the basis of the provisional agenda:
 - 1. Opening of the meeting.
 - 2. Organizational matters:
 - (a) Adoption of the agenda;
 - (b) Organization of work.
 - 3. Review of the outcomes of the eighth meeting of the Conference of the Parties to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade relevant to the work of the Committee.
 - 4. Rotation of the membership.
 - 5. Technical work:
 - (a) Report of the Bureau on the preliminary review of notifications of final regulatory action and the proposals for severely hazardous pesticide formulations;
 - (b) Review of notifications of final regulatory action:
 - (i) Acetochlor;
 - (ii) Atrazine;
 - (iii) Carbon tetrachloride;
 - (iv) Chlordecone;
 - (v) Endosulfan;
 - (vi) Hexabromocyclododecane;
 - (vii) Hexazinone;
 - (viii) Mirex;
 - (ix) Pentachlorobenzene;
 - (x) Perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride;
 - (xi) Phorate;
 - (xii) Polychlorinated naphthalenes;
 - (xiii) Triazophos;
 - (c) Review of proposals for the inclusion of severely hazardous pesticide formulations in Annex III:

- (i) Lambda-cyhalothrin emulsifiable concentrate 50 g/L;
- (ii) Lambda-cyhalothrin capsule suspension 50 g/L.
- Updates to the Handbook of Working Procedures and Policy Guidance for the Chemical Review Committee.
- 7. Venue and date of the fourteenth meeting of the Committee.
- 8. Other matters.
- 9. Adoption of the report.
- 10. Closure of the meeting.

D. Organization of work

- 19. The Committee, after welcoming new member Mr. Lal (India), who had been nominated by his Government to replace the previous member, decided to conduct the current meeting in accordance with the scenario note prepared by the Chair (UNEP/FAO/RC/CRC.13/INF/1, annex) and the tentative schedule for the meeting (UNEP/FAO/RC/CRC.13/INF/2, annex), subject to adjustment as necessary. It also decided that contact groups and drafting groups would be established as needed throughout the meeting.
- 20. The documents pertaining to each agenda item were identified in the annotations to the provisional agenda (UNEP/FAO/RC/CRC.13/1/Add.1) and in the list of pre-session documents by agenda item (UNEP/FAO/RC/CRC.13/INF/37).

III. Review of the outcomes of the eighth meeting of the Conference of the Parties to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade relevant to the work of the Committee

- 21. Introducing the item, the representative of the Secretariat summarized the information provided in document UNEP/FAO/RC/CRC.13/INF/3, on the outcomes of the eighth meeting of the Conference of the Parties to the Rotterdam Convention relevant to the Committee's work. Those outcomes had included the adoption of decisions RC-8/2, RC-8/3, RC-8/4 and RC-8/5, by which the Conference of the Parties had decided to list carbofuran, trichlorfon, short-chain chlorinated paraffins and tributyltin compounds in Annex III to the Convention and approved the related decision guidance documents; decisions RC-8/6 and RC-8/7, by which the Conference had decided that the requirements for listing a chemical under the Convention had been met for carbosulfan and fenthion formulations; and decision RC-8/8, by which the Conference had decided to continue the work initiated at its eighth meeting to identify options to enhance the effectiveness of the Convention.
- 22. In addition, the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions had each adopted a decision entitled "From science to action" (decisions BC-13/22, RC-8/15 and SC-8/25), by which they had emphasized the role of subsidiary bodies, expert groups and other related mechanisms in ensuring science-based work and decision-making under the three conventions, and had requested the Secretariat to further revise the draft road map for further engaging Parties and other stakeholders in informed dialogue for enhanced science-based action in the implementation of the conventions. Parties had nominated four experts per region to assist the Secretariat in that endeavour.
- 23. The Committee took note of the information provided.
- 24. The representative of the Secretariat, speaking at the invitation of the Chair, reported on the outcomes of the thirteenth meeting of the Persistent Organic Pollutants Review Committee of the Stockholm Convention, which had taken place the previous week, from 17 to 20 October 2017. The Committee, she said, had adopted a risk management evaluation for dicofol recommending the listing of the chemical in Annex A to the Convention without specific exemptions; adopted a risk management evaluation for pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds recommending the listing of those chemicals in Annex A to the Convention with specific exemptions and decided on an intersessional process to collect further information and assess it with the intention of strengthening the recommendation on the listing; decided that the proposal for listing perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds met the screening criteria of Annex D to the Convention and established an intersessional working group to prepare a draft risk

profile pertaining to those chemicals; and established an intersessional working group to prepare a draft report on the assessment of alternatives to perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOSF) and adopted its terms of reference.

IV. Rotation of the membership

- 25. Introducing the item, the representative of the Secretariat drew attention to the information provided in document UNEP/FAO/RC/CRC.13/INF/4 on the membership of the Chemical Review Committee, noting that the Conference of the Parties at its eighth meeting had appointed 14 designated experts to serve as members of the Committee, with terms of office from 1 May 2016 to 30 April 2020, and that the member from India had since been replaced. It had also appointed 17 designated experts to serve as members of the Committee from 1 May 2018 to 30 April 2022 and agreed that the nomination for a third member from the Latin American and Caribbean States was to be communicated to the Secretariat following the closure of the ninth meeting of the Conference of the Parties. In that regard, the Secretariat had recently received a communication on the nomination of Ms. Lady Jhoana Dominguez Majin (Colombia). The Secretariat was planning to organize an orientation workshop, in April 2018, in order to familiarize newly appointed experts with the roles, mandates and operational procedures of the Committee.
- 26. She also recalled that the thirteenth meeting of the Committee was to be the last meeting for four members of the Bureau: the Chair, Mr. Helbig; and Vice-Chairs, Mr. Spencer, Ms. Frydrych and Mr. N'Ladon, while the appointment of the remaining Vice-Chair, Ms. Sun, had been extended for a second term from 1 May 2018 to 30 April 2022. The Committee therefore needed to elect four Bureau members to succeed the outgoing Bureau members and, in accordance with paragraph 4 of decision RC-8/1, identify one of the five Bureau members to serve as interim Chair of the Committee for its fourteenth meeting, subject to the election of the Chair of the Committee by the Conference of the Parties at its ninth meeting.
- 27. The Committee took note of the information presented.
- 28. Subsequently, the Committee elected the following members to serve as Vice-Chairs of the Committee, with terms of office to begin on 1 May 2018:
 - Ms. Nolozuko Gwayi (South Africa African States)
 - Ms. Aleksandryan (Armenia Central and Eastern European States)
 - Ms. Norma Sbarbati-Nudelman (Argentina Latin American and Caribbean States)
 - Mr. Goodman (Canada Western European and other States)
- 29. In accordance with decision RC-8/1, the Committee identified Ms. Gwayi to serve, from 1 May 2018, as interim Chair of the Committee pending election by the Conference of the Parties at its ninth meeting.

V. Technical work

A. Report of the Bureau on the preliminary review of notifications of final regulatory action and the proposals for severely hazardous pesticide formulations

- 30. In considering the sub-item, the Committee had before it the report of the Bureau (UNEP/FAO/RC/CRC.13/2); information on trade in chemicals under consideration by the Chemical Review Committee (UNEP/FAO/RC/CRC.13/1NF/5); and a summary record of notifications of final regulatory action for chemicals reviewed by the Interim Chemical Review Committee or the Chemical Review Committee and of notifications scheduled for review by the Chemical Review Committee ((UNEP/FAO/RC/CRC.13/1NF/6).
- 31. Presenting the outcome of the preliminary review, Ms. Frydrych, a member of the Bureau, said that, on the basis of the information available at the time, the Bureau had undertaken a preliminary review of the new notifications of final regulatory action, the proposals for severely hazardous pesticide formulations, and relevant supporting documentation. The purpose of the preliminary review, the results of which were set out in the Bureau's report (UNEP/FAO/RC/CRC.13/2), had been to establish intersessional task groups for the candidate chemicals and set priorities for the Committee's work. The candidate chemicals had been clustered into groups on the basis of whether the underlying notifications or proposals appeared to meet the criteria of the relevant Annex to the Convention. The Committee was to review all of the notifications, proposals and supporting documentation.

- 32. A total of five intersessional task groups for new candidate chemicals had been established, with Committee members designated as chair, drafter or members of the groups on the strength of their expertise. All Committee members had been encouraged to join any of the task groups, which had been charged with undertaking an initial review and preparing an analysis to determine whether the candidate chemical met the criteria of the Convention. The draft task group reports had been posted on the Convention website for comments. Intersessional task groups had met face to face, with the participation of observers, immediately before the meeting, in order to finalize their reports. The task group chairs or drafters would present the findings of their task groups to the Committee and lead the discussion to be pursued on the individual chemicals.
- 33. The Committee took note of the information presented.

B. Review of notifications of final regulatory action

1. Acetochlor

- 34. The Committee had before it 11 notifications on acetochlor in the pesticide category submitted by the European Union and 10 African Parties: Burkina Faso, Cabo Verde, Chad, Gambia, Guinea-Bissau, Mali, Mauritania, Niger, Senegal and Togo (see UNEP/FAO/RC/CRC.13/3 and supporting information relating thereto (UNEP/FAO/RC/CRC.13/INF/7 and UNEP/FAO/RC/CRC.13/INF/8)).
- 35. Mr. Spencer, the chair of the intersessional task group that had undertaken a preliminary assessment of the notifications and supporting documentation, reported on the work of the intersessional task group, following which Ms. Lonneke Van Leeuwen, the drafter of the intersessional task group, reported on the outcomes of the group's initial assessment of the notifications.

(a) Notifications

(i) Notifications from Burkina Faso, Cabo Verde, Chad, Gambia, Guinea-Bissau, Mali, Mauritania, Niger, Senegal and Togo

- 36. Ms. Van Leeuwen recalled that the 10 African Parties were all members of the Sahelian Pesticides Committee, which worked to effect the registration of pesticides on a regional basis, and that the notifications submitted by those Parties therefore all related to the same final regulatory action. For that reason, the task group had combined the notifications in its report.
- 37. The final regulatory action banning the use of all pesticide formulations containing acetochlor had been taken because of its potential to contaminate surface water. The import, distribution and sale of the substance and its manufacture for domestic use were also banned. The notifications stated that the final regulatory action had been taken to protect human health and the environment, and therefore met the criterion in paragraph (a) of Annex II.
- 38. With respect to paragraph (b) of Annex II, the notification also stated that the final regulatory action had been based on a risk evaluation. The notification and the supporting documentation referred to scientific information from a variety of sources, including national and international reports and two local studies. The reference for calculated values of operator exposure was unclear, however, and additional information had been requested; the related information in the task group report remained bracketed pending receipt of the information. The task group had nonetheless concluded that the notification satisfied the requirements of paragraph (b) (i) and (ii), as the data had been generated according to scientifically recognized methods, and that the data reviews had been performed and documented according to generally recognized scientific principles and procedures. Furthermore, the annex to the decision to ban acetochlor revealed that in deciding to terminate the registration of acetochlor-based pesticides in its member countries, the Sahelian Pesticides Committee had taken into account all the risks described, as well as local conditions associated with surface water and its use. The final regulatory action was therefore based on a risk evaluation involving the prevailing conditions in the relevant countries and met the criterion in paragraph (b) (iii) of Annex II, meaning that the criteria of paragraph (b) as a whole were met.
- 39. With respect to paragraph (c) of Annex II, the banning of acetochlor was expected to lead to a significant reduction in the quantity of the chemical used and consequently in the risks to human health and the environment, and the criteria in paragraph (c) (i) and (ii) were therefore met. The notification stated that the use of pesticides containing acetochlor could cause similar problems to health and the environment in other countries, thus satisfying the criterion in paragraph (c) (iii). Furthermore, although no information had been provided on the estimated quantity of acetochlor produced, imported, exported and used, information gathered by the Secretariat showed that there was ongoing trade in acetochlor, and the criterion in paragraph (c) (iv) was therefore considered to have

been met. On the whole, the task group had concluded that the notifications met the criteria in paragraph (c) of Annex II.

- 40. Finally, there was no indication in the notification that the regulatory action had been prompted by concerns over the intentional misuse of acetochlor, and the criterion in paragraph (d) of Annex II was also considered to have been met.
- 41. Accordingly, the task group recommended that the Committee consider the notifications from Burkina Faso, Cabo Verde, Chad, the Gambia, Guinea-Bissau, Mali, Mauritania, the Niger, Senegal and Togo to have satisfied the criteria set out in Annex II to the Convention.

(ii) Notification from the European Union

- 42. The final regulatory action taken by the European Union banned the use of acetochlor as a pesticide by prohibiting the placement on the market and use of plant protection products containing acetochlor. The notification stated that the final regulatory action had been taken to protect human health and the environment, and thus satisfied the criterion in paragraph (a) of Annex II to the Convention.
- 43. With regard to paragraph (b) of Annex II, a member State of the European Union had carried out a risk assessment prior to the final regulatory action and had produced a draft assessment report that had been subject to peer review. The risk evaluation had been based on a review of scientific data, taking into account the conditions prevailing in the European Union. Accordingly, the task group had concluded that the notification was compatible with paragraph (b) (i), (ii) and (iii) and thus met the criteria in paragraph (b) as a whole.
- 44. Banning the use of acetochlor as a pesticide in the European Union was expected to lead to a significant reduction in the quantity of the chemical used and thus in the risk to human health and the environment, meaning that the notification of the final regulatory action satisfied the criteria in paragraph (c) (i) and (ii) of Annex II. The notification stated that the use of pesticides containing acetochlor could cause similar problems to health and the environment in other countries, and the criterion in paragraph (c) (iii) was therefore also met. Although the notification provided no information on the estimated quantity of acetochlor produced, imported, exported or used, information gathered by the Secretariat showed ongoing trade in acetochlor. The criterion in paragraph (c) (iv) had therefore also been met, meaning that the criteria in paragraph (c) as a whole had been met.
- 45. Finally, as the notification gave no indication that the regulatory action had been prompted by concerns over the intentional misuse of acetochlor, the task group had concluded that the criterion in paragraph (d) of Annex II had been met as well.
- 46. Accordingly, the task group recommended that the Committee consider the notification from the European Union to have satisfied the criteria set out in Annex II to the Convention.

(b) Discussion of the notifications

- 47. During the ensuing discussion, some members expressed support for the task group's conclusions. Another, however, suggested that the conclusion on the criterion in paragraph (b) (iii) should be left open, pending the receipt of the requested additional information on exposure values. Ms. Van Leeuwen responded that the task group had felt that all of the paragraph (b) criteria had been met even without the occupational exposure data. She added that the exposure data could be added to a draft guidance document if the requested information was received but could otherwise be left out.
- 48. Ms. Van Leeuwen also addressed a number of comments by representatives of observers, in particular comments to the effect that the risks had not been adequately evaluated through, for example, bridging information or quantitative modelling of predicted exposure. She noted that conditions and methods of use in the European Union and within the notifying Parties in the Africa region were very different and that it was therefore difficult to make comparisons, which had led to reliance on worker exposure data during the drafting process, and to the request for additional information. She reiterated that even without the exposure data, the task group considered the risks, even if qualitative, to have been adequately demonstrated. Regarding the genotoxicity, Ms. Van Leeuwen indicated that the intersessional task group had not taken into account the information in the 2015 Joint Meeting on Pesticide Residues (JMPR) report, but that it could be integrated into the decision guidance document.

¹ FAO and WHO, 2015, *Pesticide Residues in Food 2015*, report of the joint meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and the WHO Core Assessment Group on Pesticide Residues, Geneva, 15–24 September 2015: Acetochlor. Available from http://www.fao.org/3/a-i5186e.pdf.

(c) Next steps

- 49. Based on the discussion, the Committee agreed that the notifications met all the criteria of Annex II to the Convention and established a contact group to develop rationales for the Committee's conclusions on each of the notifications on the basis of the notifications and of the comments made during the discussion. The contact group would be chaired by Mr. Spencer, with Ms. Van Leeuwen acting as the drafter. The chair of the contact group could, if necessary, convert this group to a drafting group limited to members of the Committee. The Committee also requested the Secretariat to prepare a draft decision, including a recommendation to list acetochlor in Annex III to the Convention and a decision to prepare a draft decision guidance document.
- 50. Subsequently, Ms. Van Leeuwen presented a draft rationale prepared by the group for the conclusion that the notifications from the European Union and the Sahelian countries met the criteria of Annex II to the Convention. The Committee adopted decision CRC-13/1, by which it adopted the rationale; recommended to the Conference of the Parties that it should include acetochlor in Annex III to the Convention as a pesticide; and adopted a workplan for preparing a draft decision guidance document for the chemical. The decision, to which the rationale is annexed, is set out in annex I to the present report; the composition of the intersessional drafting group established to prepare the draft decision guidance document is set out in annex II; and the workplan is set out in annex III.

2. Atrazine

- 51. The Committee had before it eight notifications of final regulatory action for atrazine submitted by the European Union and by Cabo Verde, Chad, the Gambia, Mauritania, the Niger, Senegal and Togo (see UNEP/FAO/RC/CRC.13/4 and UNEP/FAO/RC/CRC.11/5), along with the related supporting information (see UNEP/FAO/RC/CRC.11/INF/9 and UNEP/FAO/RC/CRC.11/INF/10).
- 52. Introducing the documents, the representative of the Secretariat noted that the Secretariat had received no additional information pertaining to atrazine since the twelfth meeting, where consensus had been reached that all the notifications had met all the criteria of Annex II to the Convention except for the criterion in paragraph (b) (iii) of that Annex, on which there was no agreement. Hence, the Committee would consider the notifications before it at the current meeting on the basis of the same information as at its eleventh and twelfth meetings.
- 53. The Chair, recalling that the Committee had discussed the chemical extensively at its previous two meetings, drew attention to the draft rationale prepared by the contact group at the twelfth meeting (see UNEP/FAO/RC/CRC.12/INF/12), which reflected the differing views expressed, and requested that all comments be confined to new arguments.

(a) Discussion of the notifications

- 54. In the ensuing discussion it was generally agreed that, in the continued absence of any additional supporting information, it was best that the Committee not continue to review the notifications from the European Union and the seven African Parties and that a decision should be reached at the current meeting, with most of those who spoke adding that further consideration of the notifications should not be resumed until such time as the notifying Parties had provided that information.
- 55. One member asked whether there were any precedents of the Committee having indefinitely suspended a review of a notification in the absence of sufficient information to determine whether it met the criteria of Annex II to the Convention. The representative of the Secretariat, in response, recalled that it had similarly, at its second meeting, decided not to continue the review of a notification from the Netherlands for alachlor because the notification had been found to meet all the criteria of Annex II with the exception of the criterion in paragraph (b) (iii), for which the situation remained unclear in the absence of further supporting documentation. The concerned notification had not been taken up at any subsequent meetings as no additional information had been received by the Committee.

(b) Next steps

56. Following the discussion, the Committee agreed that the notifications from the European Union and the Sahelian countries met all the criteria of Annex II with the exception of the criterion in paragraph (b) (iii), for which agreement could not be reached in the absence of further supporting documentation. The Committee decided that it would not resume its review of the notifications of final regulatory action for atrazine from the European Union and Cabo Verde, Chad, the Gambia, Mauritania, the Niger, Senegal and Togo until such time as additional information had been provided by the notifying Parties.

3. Carbon tetrachloride

57. The Committee had before it a notification on carbon tetrachloride in the industrial category from Jordan (see UNEP/FAO/RC/CRC.13/5). In addition to relevant supporting documentation provided by Jordan (see UNEP/FAO/RC/CRC.13/INF/10), the Committee also had before it a notification on carbon tetrachloride, submitted by Canada, and the rationale for the conclusion drawn thereon by the Committee at its first meeting, in 2005, that the notification met the criteria set out in Annex II to the Convention (see UNEP/FAO/RC/CRC.13/INF/9).

(a) Notification from Jordan

- 58. Mr. Goodman, drafter of the task group on carbon tetrachloride, presented the outcome of group's preliminary review of the notification and supporting documentation submitted by Jordan, saying that the notification replaced a previous notification from Jordan and that the use of the substance was now severely restricted as a result of the related final regulatory action, which had taken effect in 2005. Carbon tetrachloride was prohibited in concentrations equal to or greater than 0.1 per cent by weight in substances and preparations placed on the market for sale to the general public and/or in diffusive applications, such as in surface cleaning and cleaning of fabrics. Its use in industrial installations and laboratories and research centres was, however, permitted.
- 59. Concerning the compatibility of the notification with the criteria set out in Annex II, the regulatory action had been taken as a precautionary measure designed to protect human health and the environment in Jordan by prohibiting, with very limited exemptions only, the import and use of carbon tetrachloride. The notification consequently met the criteria set out in paragraph (a) of Annex II. It also referred to the health hazard from carbon tetrachloride mentioned in a material safety data sheet reproduced in the supporting documentation and it furthermore provided physico-chemical and other relevant information deemed by the task group to meet the criteria set out in paragraph (b) (i) and (ii) of Annex II.
- 60. Although the notification indicated that the regulatory action was based on a risk or hazard evaluation, it included no bridging information to link the hazards identified in the material safety data sheet with a risk to human health or the environment in Jordan. The resulting absence of any risk evaluation involving prevailing conditions in Jordan therefore meant that the criterion in paragraph (b) (iii) of Annex II, and consequently the criteria in paragraph (b) as a whole, had not been met.
- 61. As a result of that regulatory action, the number of uses in Jordan had been reduced and the task group considered that the criterion in paragraph (c) (i) had therefore been met, together with that articulated in paragraph (c) (ii) in view of the expectation that the severe restriction on use notified by Jordan would significantly reduce the risk to human health and the environment by reducing the likelihood of release and exposure. Given the hazards and ozone-depleting potential, any State or region where exposure or release was possible might find the regulatory action relevant. The criterion in paragraph (c) (iii) had therefore also been met. In addition, in the light of information provided by the European Union on ongoing trade in the chemicals (see UNEP/FAO/RC/CRC.13/INF/5), the task group had concluded that the criterion in paragraph (c) (iv) had been met. The task group had also deemed the criterion in paragraph (d) to have been met, given the lack of any indication in the notification or supporting documentation that the regulatory action had been prompted by the intentional misuse of carbon tetrachloride.
- 62. In the light of those conclusions, the task group concluded that the notification from Jordan did not meet the criterion set out in paragraph (b) (iii) of Annex II.

(b) Discussion of the notification

63. In the ensuing discussion, a representative of an observer sought clarification of how the task group had reached the conclusion that the use of carbon tetrachloride had declined in Jordan on the basis of the information provided in the notification, given that it pertained only to the years after the regulatory action had entered into force in 2005. Mr. Goodman replied that, notwithstanding the lack of information for earlier years, the task group had inferred that the use of carbon tetrachloride after 2005 would necessarily be lower as a result of being strictly limited by the final regulatory action to laboratory purposes only. It was on those grounds that it had considered the criterion in paragraph (c) (i) of Annex II to have been met.

(c) Next steps

64. Following the discussion, the Committee agreed that the notification from Jordan did not meet all the criteria required under Annex II of the Convention, specifically that in paragraph (b) (iii), with the result that those in paragraph (b) as a whole were unmet. As only one notification of final regulatory action from one prior informed consent region, which had been reviewed at the fifth

meeting of the Committee, had met the criteria set out in Annex II, the Committee decided that no further action on carbon tetrachloride should be taken at present.

4. Chlordecone

- 65. The Committee had before it notifications of final regulatory actions relating to chlordecone in the pesticide and industrial chemical categories from Japan and Peru (see UNEP/FAO/RC/CRC.13/6) and the supporting documentation related to the notifications provided by China, Japan and Peru (see UNEP/FAO/RC/CRC.13/INF/11, UNEP/FAO/RC/CRC.13/INF/12 and UNEP/FAO/RC/CRC.13/INF/13).
- Ms. Van Leeuwen, drafter of the intersessional task group that had conducted a preliminary assessment of the three notifications and supporting documentation, explained that the notifications submitted by China and Peru were for the pesticides category, while the notification from Japan related to both the pesticide and industrial chemical categories. She then presented the outcome of the task group's preliminary review of the three notifications against the criteria set out in Annex II to the Convention.

(a) Notifications

(i) Notification from China

- 67. Ms. Van Leeuwen said that China had taken the final regulatory action in order to protect human health and the environment and the task group had therefore concluded that the criterion set out in paragraph (a) of Annex II had been met.
- 68. With regard to the criteria set out in paragraph (b) of Annex II, China had taken into account a risk profile and a risk management evaluation for chlordecone developed by the Persistent Organic Pollutants Review Committee, but there was no indication that China had conducted a risk evaluation on the chemical. Therefore, the task group had concluded that the criteria in paragraph (b) (i) and (ii) had been met, but that the criterion in paragraph b (iii), and thus in paragraph (b) as a whole, had not.
- 69. As for the criteria set out in paragraph (c), the task group had determined that the final regulatory action could lead to a significant reduction in the quantity of chlordecone used, which would in turn significantly reduce the risks to human health and the environment from the chemical, and that the chemical may cause similar problems to human health and the environment in other countries, concluding as a result that the criteria in paragraph (c) (i), (ii) and (iii) had all been met. The task group had not been able to reach a conclusion regarding the criterion in paragraph (c) (iv), however, because the notification had not provided information on estimated quantities of chlordecone exported, imported, produced or used and the task group had not been able to find information on ongoing trade in the chemical. As a result, the question of whether the criterion in paragraph (c) (iv) had or had not been met remained outstanding.
- 70. Finally, there was no indication that concerns over the intentional misuse of the chemical had prompted the final regulatory action. The task group had therefore determined that the criterion set out in paragraph (d) had been met.

(ii) Notification from Japan

- 71. The notification from Japan indicated that the country had banned the use and sale of chlordecone in the pesticide and industrial categories in order to protect human health and the task group had therefore found that the criterion in paragraph (a) had been met.
- 72. With regard to the criteria set out in paragraph (b), Japan had taken into account a risk profile and a risk management evaluation developed by the Persistent Organic Pollutants Review Committee, but there was no indication that a national or a regional risk evaluation on chlordecone had been conducted as the basis for the final regulatory action. As a result, the task group had concluded that the criteria in paragraph (b) (i) and (ii) had been met, but that in paragraph b (iii), and thus (b) as a whole, had not.
- 73. As for the criteria set out in paragraph (c), the task group had determined that the final regulatory action would lead to a significant reduction in the quantity of chlordecone, which would in turn significantly reduce risks to human health and the environment from the chemical, and the risk profile prepared by the Persistent Organic Pollutants Review Committee indicated that various countries had taken actions on the chemical. The task group had therefore concluded that the criteria set out in paragraphs (c) (i), (ii) and (iii) had all been met. As with the notification from China, the task group had not been able to reach a conclusion on whether the criterion in paragraph (c) (iv) had been met because Japan had not provided information on estimated quantities of chlordecone exported,

imported, produced or used and the task group had not been able to find information on ongoing trade in the chemical.

74. Finally, there was no indication that intentional misuse had prompted the final regulatory action and the task group had therefore determined that the criterion in paragraph (d) had been met.

(iii) Notification from Peru

- 75. The notification from Peru stated that the country had banned the use of chlordecone as a pesticide but did not indicate that the ban had been adopted in order to protect human health or the environment. The task group had therefore found that the criterion in paragraph (a) had not been met.
- 76. Similarly, there was no indication that the final regulatory action had been based on a risk evaluation and the task group had therefore concluded that the criterion in paragraph (b) had not been met.
- 77. With regard to the criteria set out in paragraph (c), the task group had determined that the final regulatory action would lead to a significant reduction in the quantity of chlordecone, which in turn would significantly reduce risks to human health and the environment from the chemical, and the supporting documentation provided by Peru showed that various countries had taken action on the chemical. In view of those three considerations, the task group had concluded that the criteria in paragraph (c) (i), (ii) and (iii) had all been met. As for the criterion in paragraph (c) (iv), the task group had not been able to determine whether the criterion had been met because Peru had not provided information on estimated quantities of chlordecone exported, imported, produced or used and the task group had not been able to find information on ongoing trade in chlordecone. The issue therefore remained outstanding.
- 78. Finally, there was no indication that concerns over intentional misuse had prompted the final regulatory action and the task group had therefore determined that the criterion in paragraph (d) had been met.

(b) Discussion of the notifications

- 79. In the ensuing discussion, one member suggested that in order to determine whether the three notifications met the criterion in paragraph (c) (iv), the Committee should determine whether or not ongoing trade in chlordecone could be ruled out. If trade could not be ruled out, the Committee should decide that the criterion in paragraph (c) (iv) had been met; conversely, if international trade could be ruled out, the Committee should conclude that that criterion had not been met.
- 80. Ms. Van Leeuwen said that she was unsure how the absence of ongoing trade could be established and therefore ruled out.
- 81. One member said that, in the absence of a full picture of the regulatory status of chlordecone in all countries, the Committee might want consider that the criterion in paragraph c (iv) had been met even if there was no evidence of international trade in the chemical. Another member said that the Committee might want to consider the fact that Parties to the Rotterdam Convention that were not Parties to the Stockholm Convention might trade in chlordecone and that there could be stockpiles of the chemical that might be traded illegally.
- 82. Following the discussion, the Committee agreed that the criterion in paragraph (c) (iv) had been met by the three notifications on the basis that, while there was no information on ongoing international trade, such trade could not be excluded.
- 83. Responding to a question from a member regarding the Peru notification, Ms. Van Leeuwen said that Peru had adopted the final regulatory action in order to comply with its obligations under the Stockholm Convention but the notification did not indicate that the ban had been adopted in order to protect human health or the environment as required under the criterion in paragraph (a) of Annex II.

(c) Next steps

84. Following the discussion, the Committee decided that the notifications from China and Japan met all the criteria of Annex II with the exception of the criterion in paragraph (b) (iii), and therefore (b) as a whole, and the notification from Peru met all the criteria of Annex II with the exception of the criteria set out in paragraphs (a) and (b). The Committee further decided that, since none of the notifications met all the criteria of Annex II, no further action on chlordecone would be taken at present.

5. Endosulfan

- 85. Introducing the sub-item, the representative of the Secretariat recalled that at its sixth meeting the Committee had reviewed nine notifications of final regulatory action on endosulfan in the pesticide category from two prior informed consent regions: Europe (European Union) and Africa (Burkina Faso, Cabo Verde, Gambia, Guinea-Bissau, Mali, Mauritania, Niger and Senegal), concluding that the notifications met all the criteria set out in Annex II and recommending that the Conference of the Parties list endosulfan in Annex III to the Convention in the pesticides category (see UNEP/FAO/RC/CRC.13/INF/14). In line with the Committee's recommendation, at its fifth meeting the Conference of the Parties had adopted decision RC-5/5, by which it had amended Annex III to the Convention to list endosulfan in the pesticides category.
- 86. At the current meeting, the Committee had before it a new notification of final regulatory action for endosulfan in the industrial and pesticide categories that had been received from Japan (see UNEP/FAO/RC/CRC.13/7) and the relevant supporting documentation (see UNEP/FAO/RC/CRC.13/INF/15).
- 87. Mr. Goodman, drafter of the intersessional task group that had undertaken a preliminary review of the new notification from Japan and supporting documentation, summarized the outcome of the group's preliminary review of the new notification against the criteria set out in Annex II to the Convention.

(a) Notification from Japan

- 88. Mr. Goodman said that the final regulatory action had been taken in order to protect human health and the task group had therefore found that the criterion in paragraph (a) of Annex II had been met.
- 89. With regard to the criteria in paragraph (b) (i) and (ii), Japan had based its final regulatory action on data contained in a risk profile developed by the Persistent Organic Pollutants Review Committee. The task group had therefore found that the criteria had been met, in line with the approach endorsed by the Conference of the Parties at its third meeting which enabled the Committee to consider risk evaluations conducted under the Montreal Protocol and the Stockholm Convention as adequate for meeting those two criteria.
- 90. As for the criterion in paragraph (b) (iii), Japan had indicated that endosulfan had been designated a "class I" substance as a result of it being listed in the Stockholm Convention and that Japan had not conducted a risk evaluation of endosulfan because the substance was not marketed in the country. As a result, the task group had concluded that the criterion in paragraph b (iii) had not been met.
- 91. The notification did not provide estimated quantities of endosulfan previously imported, produced or used, but because the final regulatory action banned industrial uses of endosulfan, it would be expected to lead to a significant decrease in the quantity of endosulfan for such uses and prevent the introduction of any future industrial use, thereby lowering the risks to human health and the environment. The task group had therefore found that the criteria in paragraph (c) (i) and (ii) had been met.
- 92. Regarding the criterion in paragraph (c) (iii), the risk profile provided as supporting documentation showed that global action was warranted. The task group had therefore determined that the criterion had been met.
- 93. Similarly, the task group had determined that the criterion in paragraph (c) (iv) had been met because some Parties to the Stockholm Convention had registered for specific exemptions for the production and use of endosulfan, which suggested that its use and production would continue and that international trade in the chemical could therefore be expected.
- 94. Finally, there was no indication that concerns over intentional misuse had prompted the final regulatory action. Accordingly, the task group had determined that the criterion in paragraph (d) had been met.

(b) Next steps

95. The Committee agreed that the newly submitted notification of final regulatory action from Japan did not meet all the criteria of Annex II, in particular, the criterion in paragraph (b) (iii) and thus the criteria set out in paragraph (b) as a whole, and that no further action would therefore be taken on endosulfan in the industrial chemical category at present.

6. Hexabromocyclododecane

- 96. The Committee had before it notifications of final regulatory actions relating to hexabromocyclododecane in the industrial category from China, Japan and Norway (see UNEP/FAO/RC/CRC.13/8); the supporting documentation related to the notifications provided by China, Japan and Norway, set out in documents UNEP/FAO/RC/CRC.13/INF/16, UNEP/FAO/RC/CRC.13/INF/17/Rev.2 and UNEP/FAO/RC/CRC.13/INF/18, respectively.
- 97. Mr. Goodman, drafter of the intersessional task group, summarized the outcomes of the preliminary review of the above-mentioned three notifications and supporting documentation against the criteria set out in Annex II to the Convention, as discussed below.

(a) Notifications

(i) Notification from China

- 98. With regard to the criterion set out in paragraph (a) of Annex II, Mr. Goodman said that the notification revealed that the final regulatory action had been taken to protect both human health and the environment. The task group had therefore concluded that this criterion had been met.
- 99. As for criteria set out in paragraph b (i) and (ii), at its third meeting, the Conference of the Parties had endorsed an approach that enabled the Committee to consider risk evaluations conducted under the Montreal Protocol on Substances that Deplete the Ozone Layer and the Stockholm Convention as adequate for meeting the criteria set out in those two subparagraphs. Given that China had based its regulatory action on scientific data contained in the risk profile on hexabromocyclododecane prepared by the Persistent Organic Pollutants Review Committee, the task group had found that the criteria set out in paragraph b (i) and (ii) had been met.
- 100. Regarding paragraph (b) (iii), China had indicated that the final regulatory action was based not on a risk evaluation, but on the decision by the Parties to the Stockholm Convention to list hexabromocyclododecane in Annex A to that Convention and the entry into force of the amendment for China. The task group had therefore concluded that the criterion set out in paragraph (b) (iii), and therefore the criteria in paragraph (b) as a whole, had not been met.
- 101. The notification did not provide estimated quantities of hexabromocyclododecane previously imported, produced or used; however, it cited previous industrial uses of the substance, primarily as a flame retardant, and a few restricted uses. The task group had therefore found that the criterion in paragraph c (i) had been met. The regulatory action could be expected to lead to a significant reduction in risks to human health and the environment. Accordingly, the task group had concluded that the criterion in paragraph (c) (ii) had also been met.
- 102. China had not cited information regarding the applicability of considerations to other regions. However, because China had based its regulatory action on the risk profile on hexabromocyclododecane prepared by the Persistent Organic Pollutants Review Committee, which indicated that global action was warranted, taking into account the properties of the substance, the task group had found that the criterion set out in paragraph c (iii) had been met.
- 103. Although the notification had not included information on trade, the fact that the Parties to the Stockholm Convention had included a number of exemptions for the production and use of hexabromocyclododecane suggested that the production and use of the chemical continued and that ongoing trade could be expected. As a result, the task group had concluded that the criteria set out in paragraph c (iv) and in paragraph (c) as a whole had been met. Finally, since there was no indication that intentional misuse had prompted the regulatory action, the task group had determined that the criterion in paragraph (d) had also been met.
- 104. Given the considerations set out above, the task group proposed that the Committee conclude that the notification from China did not meet the criteria set out in Annex II, specifically the criterion in paragraph b (iii) and consequently the criteria set out in paragraph (b) as a whole.

(ii) Notification from Japan

105. The final regulatory action had been taken to protect human health given the properties of hexabromocyclododecane, and the risk profile on the substance prepared by Persistent Organic Pollutants Review Committee provided by Japan as supporting documentation summarized its adverse effects on human health and exposure and monitoring data from various regions around the world, including some data from Japan. The task group had therefore found the criterion set out in paragraph (a) of Annex II to have been met.

- 106. Japan had based its final regulatory action on the risk profile for hexabromocyclododecane conducted by the Persistent Organic Pollutants Review Committee, as well as a risk evaluation on the substance conducted by the Government of Japan in line with its domestic processes, which required the conduct of such evaluations for a chemical listed in the Stockholm Convention to be classified as a "class I" when the substance was still on the domestic market. The evaluation was in Japanese, but a summary of it had been translated into English, and the task group had found that the criteria in paragraph b (i) and (ii) had been met. At the request of the Secretariat, Japan had provided additional information on its domestic process for the classification of substances under class I and had confirmed that the regulatory action had been taken as a result of the risk evaluation. Therefore, the text regarding the criterion in paragraph (b) (iii) had been placed between brackets in the task group report pending validation of the information provided which was subsequently provided confirming that a risk evaluation has been carried out in making the decision on final regulatory action. It could thus be concluded that that criterion, and the criteria set out in paragraph (b) as a whole, had been met.
- 107. The notification had not provided estimated quantities of hexabromocyclododecane previously imported, produced or used, but it had cited previous industrial uses in Japan and imposed a ban on all industrial uses that would reduce uses of the chemical in the country. The task group had therefore found that the criterion in paragraph c (i) had been met.
- 108. With regard to the criterion set out in paragraph (c) (ii), the ban notified by Japan could be expected to lead to a significant reduction in risk and human exposure. Accordingly, the task group had concluded that this criterion had also been met.
- 109. As was the case with the notification by China, given that the risk profile prepared by the Persistent Organic Pollutants Review Committee indicated that global action on hexabromocyclododecane was warranted and that a number of exemptions for the use and production of the chemical had been adopted under the Stockholm Convention, which suggested that the production and use of hexabromocyclododecane could continue and that ongoing trade could be expected, the task group had concluded that the criteria set out in paragraph c (iii) and (iv), and in paragraph (c) as a whole, had been met.
- 110. Finally, since there was no indication of intentional misuse prompting the final regulatory action, the task group had determined that the criterion set out in paragraph (d) of Annex II had been met.

(iii) Notification from Norway

- 111. Mr. Goodman said that the final regulatory action adopted by Norway had been taken to protect both human health and the environment. Accordingly, it had been found that the criterion in paragraph (a) of Annex II had been met.
- 112. Norway had provided a series of published studies and supporting information, including a European Commission risk assessment of hexabromocyclododecane conducted in line with the Commission's technical guidelines and recognized scientific principles and procedures. The task group had therefore found that the criteria set out in paragraph b (i) and (ii) had been met.
- 113. With regard to the criterion set out in paragraph b (iii), the notification quoted the European risk assessment for hexabromocyclododecane, and the data provided confirmed hexabromocyclododecane presence and hazards in Norway. Accordingly, the task group had determined that that criterion had also been met.
- 114. The notification had provided quantities of hexabromocyclododecane imported and exported in 2012 and 2013, citing industrial uses of the chemical as flame retardants outside of Norway, with a time-limited exemption made for expanded polystyrene production. The criterion in paragraph c (i) had therefore been determined to have been met, as had the criterion in paragraph c (ii), as the severe restriction was expected to lead to a significant risk reduction.
- 115. As was the case with the notifications by China and Japan, since action under the Stockholm Convention indicated that global action on hexabromocyclododecane was warranted and since the production and use exemptions adopted under the Stockholm Convention suggested that the production and use of the chemical could continue and that ongoing trade in the chemical was predictable, the task group had concluded that the criteria in paragraph c (iii) and (iv), and the criteria set out in paragraph (c) as a whole, had been met.
- 116. Finally, since there was no indication of intentional misuse prompting the regulatory action, the task group had determined that the criterion in paragraph (d) had also been met.

(b) Discussion of the notifications

- 117. In the ensuing discussion, it was agreed that the notification from China did not meet the criterion set out in paragraph b (iii) of Annex II or the criteria set out in paragraph (b) as a whole.
- 118. With regard to the notification from Japan, one Committee member, supported by another member, expressed the view that the notification met all the criteria set out in Annex II to the Convention.
- 119. Mr. Goodman said that the Committee handbook was very clear on the use of a document of the Persistent Organic Pollutants Review Committee to assess a notification against the criteria in paragraph (b) of Annex II to the Rotterdam Convention. If a final regulatory action had been taken strictly to implement obligations under the Stockholm Convention, it might meet the criteria set out in paragraph b (i) and (ii) of Annex II, but not the criterion in paragraph b (iii). However, Japan had confirmed that its domestic process with regard to the final regulatory action on hexabromocyclododecane had included an evaluation of risk as the substance was still on the domestic market. He added that the basis for the criterion in paragraph (b) (iii) could be found in the information provided by Japan, which was set out in document UNEP/FAO/RC/CRC.13/INF/17/Rev.2, and in the relevant documents of the Persistent Organic Pollutants Review Committee.

(c) Next steps

- 120. The Committee agreed that the notifications of Japan and Norway met all the criteria set out in Annex II to the Convention, and it established a contact group, with Ms. Tugui serving as chair and Mr. Goodman serving as drafter, to prepare a draft rationale on each notification for consideration by the Committee. The Committee decided that the chair of the contact group could, if necessary, convert the group to a drafting group limited to members and requested the Secretariat to prepare for its consideration a draft decision recommending the listing of hexabromocyclododecane in Annex III to the Convention and a decision to prepare a draft decision guidance document for the chemical.
- 121. Subsequently, Mr. Goodman presented a draft rationale prepared by the group for the conclusion that the notifications from Japan and Norway met the criteria of Annex II to the Convention. The Committee adopted decision CRC-13/2, by which it adopted the rationale; recommended to the Conference of the Parties that it should include hexabromocyclododecane in Annex III to the Convention as an industrial chemical; and adopted a workplan for preparing a draft decision guidance document for the chemical. The decision, to which the rationale is annexed, is set out in annex I to the present report; the composition of the intersessional drafting group established to prepare the draft decision guidance document is set out in annex II; and the workplan is set out in annex III.

7. Hexazinone

- 122. The Committee had before it 11 notifications on hexazinone in the pesticide category, submitted by Norway and by Burkina Faso, Cabo Verde, Chad, the Gambia, Guinea-Bissau, Mali, Mauritania, the Niger, Senegal and Togo (see UNEP/FAO/RC/CRC.13/9), along with the related supporting information (see UNEP/FAO/RC/CRC.13/INF/19 and UNEP/FAO/RC/CRC.13/INF/20).
- 123. Introducing the documents, the representative of the Secretariat noted that the 10 African Parties were all members of the Sahelian Pesticides Committee; that the members of that Committee worked together to take decisions on the registration of pesticides on a regional basis; and that all 10 notifications submitted by the African Parties therefore related to the same final regulatory action.
- 124. Ms. Lemsioui, the chair of the intersessional task group that had undertaken a preliminary review of the notifications and supporting documentation, reported briefly on the work of the task group and Ms. Randall, the drafter of the group, then reported on its preliminary review of the notifications.

(a) Notifications

(i) Notification from Norway

125. Regarding the criteria of Annex II to the Convention, Ms. Randall pointed out that the final regulatory action taken by Norway in relation to hexazinone had been to ban the sale, stocking, storage and use of the chemical as a pesticide for weed control in pine tree nurseries, based on a risk evaluation that had identified its low degree of degradation under Norwegian climatic conditions, a high degree of mobility in soil and its extreme toxicity to algae; that that action had been taken to protect the environment; and that the task group had therefore concluded that the criterion in paragraph (a) of Annex II had been met.

- 126. As to the criteria in paragraph (b) of Annex II, the final regulatory action had been based on a risk evaluation conducted by the Norwegian Agricultural Inspection Service and a review by the national Board of Pesticides, with an assessment of, among other things, human toxicology, environmental fate and behaviour, ecotoxicology and the availability of alternatives. In that regard, and in the light of the list of background literature, published literature and studies submitted, the task group had concluded that the reviews had been performed and documented according to internationally recognized scientific principles and procedures, and that the criteria in paragraph b (i) and (ii) of Annex II to the Convention had therefore been met. In addition, since the risk evaluation had taken into account the prevailing climatic conditions in Norway, as well as the recommended application rates and use of hexazinone as a pesticide, the task group had concluded that the criterion in paragraph b (iii) of Annex II had also been met. Ms. Randall said that one task group member did not agree with this conclusion, indicating that the Norway decision had been based on published studies from outside of Norway and an evaluation of potential exposure and intrinsic properties of the chemicals combined with climatic conditions in Norway and was therefore not based on measured concentrations in Norway but on expected or anticipated exposure.
- 127. Regarding the criteria in paragraph (c) of Annex II to the Convention, the ban on the use of hexazinone was expected to reduce the quantity of the chemical used to zero, with a significant reduction in the risks to the environment. On that basis, the task group had concluded that the criteria in paragraph (c) (i) and (ii) had been met. Meanwhile, similar concerns over the risk of surface water contamination due to hexazinone use and the risks to aquatic organisms had been expressed in other countries with similar climatic conditions to Norway, and the considerations culminating in the final regulatory action also applied in other countries. As such, the task group had concluded that the criterion in paragraph (c) (iii) of Annex II had been met. Finally, given that the information gathered by the Secretariat on trade in chemicals under consideration by the Committee, as presented in document UNEP/FAO/RC/CRC.13/INF/5, attested to an ongoing international trade in hexazinone, the task group had concluded that the criterion in paragraph (c) (iv), too, had been met.
- 128. Regarding paragraph (d) of Annex II, there was no indication in the notification or supporting documentation of the final regulatory action having been prompted by concerns over the intentional misuse of hexazinone, meaning that the criterion in that paragraph had also been met.
- 129. Accordingly, the task group recommended that the Committee consider the newly submitted notification from Norway to have satisfied the criteria set out in Annexes I and II to the Convention, with the criterion in paragraph b (iii) of Annex II remaining an open question.

(ii) Notifications from Burkina Faso, Cabo Verde Chad, Gambia, Guinea-Bissau, Mali, Mauritania, Niger, Senegal and Togo

- 130. With regard to the notification from the 10 Parties that were members of the Sahelian Pesticides Committee, the task group had confirmed that the final regulatory action to ban all pesticides containing hexazinone, pursuant to decision 003/MC/2017 of the Permanent Inter-State Committee for Drought Control in the Sahel, had been taken to protect human health and the environment against the risk of water contamination and, hence, that the criterion in paragraph (a) of Annex II to the Convention had been met.
- Regarding the criteria in paragraph (b) to that Annex, the evaluation set out in the supporting documentation was based on, among other things, toxicological data and data on the environmental fate and behaviour of hexazinone and its effects on non-target organisms drawn from internationally recognized sources, including the World Health Organization. The task group had concluded that the data in question had been generated according to scientifically recognized methods; that the necessary reviews had been performed and documented according to generally recognized scientific principles and procedures; and, hence, that the criteria in paragraph b (i) and (ii) of Annex II to the Convention had been met. Meanwhile, the final regulatory action had been based on published studies on the properties of the chemical in terms of mobility and the risks of surface-water contamination, combined with a consideration of conditions in the Sahel region where those risks were high and soil quality was poor. The Sahelian Pesticides Committee had concluded that risk-reduction measures such as 50-metre buffer zones to limit water contamination, as required by the Pest Management Regulatory Agency of Health Canada, were not possible in the Sahel owing to, among other things, unsound agricultural practices that prevented the monitoring and management of such zones. In view of the fact that the risk evaluations underpinning the final regulatory action had taken into account those and other prevailing conditions, the task group had concluded that the criterion in paragraph b (iii) of Annex II had also been met. However, this conclusion was challenged by one task group member.

- 132. As to the criteria in paragraph (c) of Annex II to the Convention, the ban on the use of hexazinone suggested that the final regulatory action would lead to a significant reduction in the quantity used, and was also expected to significantly reduce the risks to the environment and to human health. As such, the task group had concluded that the criteria in paragraph (c) (i) and (ii) of Annex II had been met. Meanwhile, given that the notification stated that the use of pesticides containing hexazinone could cause similar problems to human health and the environment in other countries, the task group had concluded that the considerations leading to the final regulatory action were applicable to a wide geographical area and range of circumstances and, hence, that the criterion in paragraph (c) (iii) had been met. Finally, the information gathered by the Secretariat and presented in document UNEP/FAO/RC/CRC.13/INF/5 appeared to confirm that international trade in hexazinone was ongoing and, hence, the task group had concluded that the criterion in paragraph (c) (iv) had also been met.
- 133. As there was no indication in the notification or supporting documentation that the final regulatory action had been prompted by concerns over the intentional misuse of hexazinone, the criterion in paragraph (d) of Annex II was also considered to have been met.
- 134. Accordingly, the task group recommended that the Committee consider the newly submitted notifications from Burkina Faso, Cabo Verde, Chad, the Gambia, Guinea-Bissau, Mali, Mauritania, the Niger, Senegal and Togo to have satisfied the criteria set out in Annexes I and II to the Convention with the criteria set out in paragraph (b) of Annex II remaining an open question.

(b) Discussion of the notifications

- 135. In the ensuing discussion of the notification from Norway, one member, supported by another, said that none of the cited studies published in English had explained exactly why exposure of algae to a half maximal effective concentration (EC50) of hexazinone was relevant to the conditions in Norway or why the persistence of the chemical, with a half-life of around one year in Norwegian conditions, and its mobility and transportation to water sources might be the cause of an unacceptable risk. In the absence of a satisfactory explanation from the task group and further bridging information from the notifying Party, both members said that they were not satisfied that the criterion in paragraph (b) (iii) of Annex II had been met.
- In the discussion of the notifications from Burkina Faso, Cabo Verde, Chad, the Gambia, Guinea-Bissau, Mali, Mauritania, the Niger, Senegal and Togo, one member, supported by another, said that final regulatory action outlined in the notifications appeared to have been based on a hazard analysis as opposed to a risk evaluation that would satisfy the criterion in paragraph (b) (iii) of Annex II to the Convention. With regard to the reference to buffer zones in Canada, he said that those zones had been established as advisory or precautionary measures and the associated risk evaluations had not shown any risk to surface water or identified any unacceptable health risks. Supported by several other members, he added that bridging information was essential in cases where the perceived risk in the notifying Parties differed from that in the other countries cited. One of the other members added that the designated national authorities of notifying Parties should be advised to include in their notifications an explanation of such differences in perceived risks and in the outcomes; another said that the notifications under consideration were also undermined by a lack of any references to particular issues highlighted in the evaluations of, among others, the United States of America's Environmental Protection Agency and Canada's Pest Management Regulatory Agency; while a third recommended that the Secretariat provide designated national authorities with technical assistance in communicating information within their notifications. Another member, however, while acknowledging the points made by the previous speakers, said that enough examples of linkages with other ecological settings had been highlighted to call into question their assertion that the notification lacked sufficient information to confirm that they met the criterion in paragraph (b) (iii) of Annex II. There were many countries in other regions, he said, that could find that information relevant to their own situation. The first member that had spoken on the matter suggested, in response, that the latter point could be regarded as further confirmation of the criteria in paragraph (c) having been met.

(c) Next steps

137. The Committee, concluding that the notifications of final regulatory action from Norway and from Burkina Faso, Cabo Verde, Chad, the Gambia, Guinea-Bissau, Mali, Mauritania, the Niger, Senegal and Togo did not meet the criterion in paragraph (b) (iii) of Annex II to the Convention and, hence, in paragraph (b) as a whole, decided that no further action on the chemical would be taken at present.

8. Mirex

138. The Committee had before it two new notifications of final regulatory action for mirex. The notifications (see UNEP/FAO/RC/CRC.13/10) were, in the industrial category, from Canada and, in the pesticide category, from Colombia. The supporting documentation from Canada was set out in document UNEP/FAO/RC/CRC.13/INF/22 and that from Colombia in document UNEP/FAO/RC/CRC.13/INF/23. The new notification from Canada replaced the previous notification it had submitted, which the Committee had reviewed at its second meeting, concluding that it met the criteria set out in Annex II to the Convention. The previous notification and the rationale for the Committee's conclusion were set out in document UNEP/FAO/RC/CRC.13/INF/21.

(a) Notifications

(i) Notification from Canada

139. Ms. Peltola-Thies, drafter of the intersessional task group that had undertaken a preliminary assessment of the notification and supporting documentation from Canada, presented the group's assessment. Concerning the requirements under Annex II, the new notification - submitted on account of a change in the legislative framework of Canada - was identical in terms of its objective and the risk evaluation provided for the previous notification submitted by Canada, which the Committee had found to meet those requirements. She added that Canada had informed the Secretariat that Dechlorane Plus was not in fact covered by the notification and should therefore be removed from its contents. With respect to the criterion in paragraph (c) (iv) of Annex II, the task group had considered it fulfilled on the basis of the evidence provided by Canada on ongoing trade at the time of the previous notification. In short, the task group recommended that the Committee share its conclusion that the notification from Canada met all the criteria set out in Annex II to the Convention.

(ii) Notification from Colombia

- 140. Ms. Peltola-Thies presented the task group's analysis of the notification and supporting documents submitted by Colombia. Concerning the requirements under Annex II, the final regulatory action first implemented in Colombia in 1992 prohibited the import, production, formulation, commercialization and use of mirex as an insecticide for the control of ants and termites, as well as the handling of all products containing mirex. The task group had thus confirmed that the final regulatory action had been taken to protect human health and the environment, thereby meeting the criterion set out in paragraph (a) of Annex II.
- 141. The task group had also found that the notification met the criteria set out in paragraphs (b) (i) and (ii) of Annex II to the Convention, relating to the risk evaluation on which the final regulatory action was based. Information was lacking concerning the prevailing conditions in which that evaluation had been conducted, however, while some of the references provided in that context in the supporting documentation contained no substance-specific information on the properties, use and/or exposures of mirex, and could not therefore be relied upon as evidence. The task group had therefore concluded that the notification did not meet the criterion in paragraph (b) (iii) of Annex II nor, consequently, the criteria in paragraph (b) as a whole.
- As to the criterion in paragraph (c) (i) of Annex II, the task group had concluded that it had been met as a result of the significant decrease in the quantity of mirex used as pesticide following the implementation of the final regulatory action. It had reached the same conclusion with respect to the criterion in paragraph (c) (ii) on the grounds that the final regulatory action had effectively diminished the risks to human health and the environment posed by the persistent, bioaccumulative and toxic properties of mirex, which had in fact led to its inclusion in Annex A to the Stockholm Convention. The information provided in the notification furthermore constituted evidence of the risks to human health and the environment as a result of the manufacture and use of mirex outside Colombia. The task group therefore considered that the criterion set out in paragraph (c) (iii) of Annex II had been met, together with that in paragraph (c) (iv), albeit that no information had been made available to it concerning the ongoing trade in mirex. Indeed, there was no information to confirm that trade was not ongoing within countries not Party to the Stockholm Convention. The criteria in paragraph (c) as a whole had consequently been met, as had those in paragraph (d), given the lack of any indication in the notification or supporting documentation that concerns over the intentional misuse of mirex had prompted the final regulatory action. The task group thus recommended that the Committee share its conclusion that the notification from Colombia did not meet the criterion in paragraph (b) (iii) of Annex II and accordingly failed to meet the criteria set out in Annex II as a whole.

(b) Discussion of the notifications

- 143. In the ensuing discussion, one member expressed agreement with the conclusions of the task group on the notification from Canada.
- 144. Regarding the notification from Colombia, while one member expressed agreement with the conclusions of the task group, another noted that the information on pesticides set out in the notification provided no details of mirex levels in Colombia, which would therefore seem to indicate that the final regulatory action had been taken as a precautionary measure. Several members exchanged views concerning the merit of the criterion set out in paragraph (c) (iv), relating to evidence of ongoing international trade in the chemical, insofar as it invariably appeared to be met, regardless of whether or not such evidence was available. In response, the Chair read out the wording generally applied in that context, which was: "Although there is no information on ongoing trade of the chemical available to the Committee, it cannot be excluded that international trade takes place."

(c) Next steps

- 145. The Committee agreed that the notification from Canada had met all the criteria of Annex II to the Convention but the notification from Colombia had failed to satisfy the criterion in paragraph (b) (iii) of Annex II.
- 146. The Committee established a contact group chaired by Ms. Frydrych, with Ms. Peltola-Thies serving as its drafter, to prepare a draft rationale on the basis of the previous rationale for the conclusion adopted by the Committee at its second meeting. It also decided to request the Secretariat accordingly to prepare a draft decision on mirex for consideration by the Committee.
- 147. Ms. Peltola-Thies subsequently presented a draft rationale prepared by the group for the conclusion that the notification from Canada met the criteria of Annex II to the Convention. The Committee adopted decision CRC-13/3, by which it adopted the rationale and noted that, as only one notification of final regulatory action in respect of mirex met the criteria set out in Annex II to the Convention, no further action on the chemical would be taken at present. The decision, to which the rationale is annexed, is set out in annex I to the present report.

9. Pentachlorobenzene

- 148. The Committee had before it a new notification from China for pentachlorobenzene in the pesticides category (see UNEP/FAO/RC/CRC.13/11 and the related supporting information (UNEP/FAO/RC/CRC.13/INF/25)). In addition, the Committee had before it a notification from Canada for pentachlorobenzene in the pesticide category that it had reviewed at its seventh meeting, together with the rationale for its decision that the notification from Canada had met the requirements of the Convention (see UNEP/FAO/RC/CRC.13/INF/24).
- 149. Ms. Frydrych, the chair of the intersessional task group that had undertaken a preliminary assessment of the notification and supporting documentation from China, reported on the group's assessment.

(a) Notification from China

- 150. The final regulatory action notified by China banned the production, use, import and export of pentachlorobenzene. As the notification indicated that action had been taken to protect human health and the environment, the task group had determined that the criteria in paragraph (a) of Annex II to the Convention had been met.
- 151. The risk evaluation leading to the final regulatory action had been based on the risk profile and risk management evaluation prepared by the Persistent Organic Pollutants Review Committee of the Stockholm Convention. The data available in those documents had been generated according to scientifically recognized methods and the data reviews had been conducted and documented according to generally recognized scientific principles and procedures. Accordingly, the task group considered that the criteria in paragraphs (b) (i) and (ii) of Annex II had been met. The task group had concluded, however, that the requirements of paragraph (b) (iii) had not been met, for even though the notification stated that the final regulatory action had been based on a risk evaluation, neither the notification nor the supporting documentation stated that that evaluation had taken into account the prevailing conditions in China. As a result, the task group had also concluded that the requirements of paragraph (b) of Annex II as a whole had not been satisfied.
- 152. Regarding the criteria in paragraph (c) of Annex II, the task group had considered that the ban on the production, use, import and export of pentachlorobenzene could be expected to result in a significant decrease in the quantity of the chemical used, which would in turn result in a significant decrease in the actual risks to human health and/or the environment that resulted from

pentachlorobenzene use. As such, the task group had concluded that the criteria in paragraphs (c) (i) and (ii) had been met. Meanwhile, China had noted in its notification that other countries could encounter similar health and environmental problems when using the substance, and that measures had been taken to progressively control and ban the use of pentachlorobenzene by the Parties to the Stockholm Convention. On that basis, the task group had determined that the notification had met the criterion in paragraph (c) (iii). Finally, in spite of the fact that no data had been provided in the notification on the quantities of pentachlorobenzene produced, imported, exported and used in China and that no information on ongoing trade in the substance had been received by the Secretariat, the task group had determined that the criterion in paragraph (c) (iv) had been met as the Persistent Organic Pollutants risk profile contained information on the use of pentachlorobenzene as an intermediate in the manufacture of pentachloronitrobenzene (quintozene), which was still available for trade, and that pentachlorobenzene could be found as an impurity in several herbicides, pesticides and fungicides. Accordingly, the task group had concluded that the criteria in paragraph (c) as a whole had been met.

- 153. Finally, given that there was no evidence that the final regulatory action had been based on intentional misuse, the task group had concluded that the criterion in paragraph (d) of Annex II to the Convention had also been met.
- 154. Based on the results of its assessment, the task group had concluded that the notification from China met all the criteria set out in Annex II except for the criterion in paragraph (b) (iii).

(b) Next steps

155. The Committee agreed that the notification of final regulatory action from China did not meet all the criteria of Annex II, in particular the criterion in paragraph (b) (iii), and that it would take no further action at present.

10. Perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride

- 156. The Committee had before it notifications of final regulatory action for PFOS, its salts and PFOSF in the industrial category previously received from Canada, the European Union and Japan, as well as the rationale for the conclusion drawn by the Committee, at its seventh meeting, that the notifications met the criteria set out in Annex II to the Convention (see UNEP/FAO/RC/CRC.13/INF/26). At the Committee's recommendation, the Conference of the Parties to the Convention, at its sixth meeting, had amended Annex III to the Convention in order to list those chemicals in the industrial category and had also approved the related decision guidance document. The Secretariat had since received an additional notification for the same chemicals in the pesticide category from China (see UNEP/FAO/RC/CRC.13/12). The relevant supporting documentation for review at the present meeting was set out in document UNEP/FAO/RC/CRC.13/INF/27.
- 157. Ms. Peltola-Thies, the drafter of the task group, reported on the outcomes of the group's preliminary review of the notification and supporting documentation from China.

(a) Notification from China

- 158. The final regulatory action notified by China banned the production, use, import and export of PFOS, its salts and PFOSF, other than for the applications allowed as acceptable purposes or specific exemptions that it had registered under the Stockholm Convention. As the notification indicated that the final regulatory action had been taken to protect human health and the environment, the task group had determined that the criterion set out in paragraph (a) of Annex II to the Convention had been met. The risk evaluation leading to the final regulatory action had been based on the risk profile and risk management evaluation prepared by the Persistent Organic Pollutants Review Committee of the Stockholm Convention. The data available in those documents had been generated according to scientifically recognized methods and the data reviews had been conducted and documented according to generally recognized scientific principles and procedures. Accordingly, the task group considered that the criteria in paragraph (b) (i) and (ii) of Annex II had been met. The task group, had not, however, been able to conclude whether the requirements of paragraph (b) (iii) had been met, as there was no information to confirm whether that risk evaluation had taken into account the prevailing conditions in China. As a result, the task group had also concluded that the requirements of paragraph (b) of Annex II as a whole had not been satisfied.
- 159. Regarding the criteria in paragraph (c) of Annex II to the Convention, China's prohibition of the use of PFOS, its salts and PFOSF as a pesticide except for the exempted insecticidal use for red imported fire ants and termites could, with reasonable certainty, be considered to have led to a decrease in the quantity of the chemical used and, as a result, a significant reduction of the risks to human health and the environment. The task group had therefore concluded that the criteria in

paragraph (c) (i) and (ii) of Annex II had been met. Furthermore, the supporting documentation had provided evidence of the risks inherent to the manufacture and use of the PFOS, its salts and PFOSF in every region of the world, and had also highlighted the inclusion of the chemicals in Annex B to the Stockholm Convention on the grounds of, among other things, potential for long-range environmental transport. As such, the task group had concluded that the criterion in paragraph (c) (iii) had also been met. In addition, in the light of information provided by the European Union on ongoing trade in the chemicals (see UNEP/FAO/RC/CRC.13/INF/5), the task group had concluded that the criterion in paragraph (c) (iv) had been met.

160. As to paragraph (d) of Annex II, the task group had concluded that in view of the lack of any indication in the notification or supporting documentation that the regulatory action had been prompted by concerns over the intentional misuse of the PFOS-group, the criterion in that paragraph, too, had been met.

(b) Discussion of the notifications

161. Subsequently, a member from China confirmed that the risk evaluation had not taken into account the prevailing conditions in China, as it was based solely on the risk profile and risk management evaluation documents developed by the Persistent Organic Pollutants Review Committee of the Stockholm Convention.

(c) Next steps

162. The Committee concluded that the notification of final regulatory action from China had met all criteria in Annex II to the Convention except for that in paragraph (b) (iii). The Committee therefore decided that no further action on the group of chemicals would be taken at present.

11. Phorate

- 163. The Committee had before it a new notification of final regulatory action from Brazil for phorate in the pesticides category (see UNEP/FAO/RC/CRC.13/13 and the related supporting information (UNEP/FAO/RC/CRC.13/INF/29)). It also had before it a notification from Canada for phorate in the pesticide category that it had reviewed at its fifth meeting, and the rationale for its decision that the notification had met the requirements of the Convention. The notification from Canada and the related rationale had been reproduced in document UNEP/FAO/RC/CRC.13/INF/28.
- 164. Ms. Frydrych, the chair of the intersessional task group that had undertaken a preliminary review of the notification and supporting documentation from Brazil, reported on the outcomes of the group's preliminary review.

(a) Notification from Brazil

- 165. The notification indicated that the final regulatory action prohibited all technical and formulated products based on phorate as the active ingredient, and consequently banned the production, use, trade, import and export of phorate.
- 166. The task group had concluded that the criterion in paragraph (a) had been met, as the final regulatory action had been taken to protect human health; both the notification and the supporting documentation listed a large number of toxic effects that showed the substance to be highly toxic to humans.
- 167. With respect to the criteria in paragraph (b) of Annex II, an extensive review of the relevant data on hazards and risks associated with phorate had been performed using reviewed documents, published reports and the literature. The task group had concluded that the data referred to and provided in the notification and the supporting documentation had been generated according to scientifically recognized methods and that the reviews had been performed and documented according to generally recognized scientific principles and procedures, and thus that the criteria in paragraphs (b) (i) and (ii) had been met. In addition, Brazil's risk evaluation for phorate included an extensive review of data that showed phorate to be highly toxic. It also referred to a study showing that farmers in the state of Amazonas were unaware of the risk to human health and the environment and did not use personal protective equipment. The task group had taken into account all the information provided, as well as guidance in the Handbook of Working Procedures and Policy Guidance indicating that for acutely toxic pesticides, the description of the prevailing conditions in the notifying Party could include information on the availability and common use of protective equipment, and had concluded that the criterion in paragraph (b) (iii) had been met. Consequently, the notification satisfied the criteria in paragraph (b) of Annex II as a whole.

- 168. The task group concluded that criteria in paragraphs (c) (i) and (ii) had been met as the final regulatory action would prevent any further production, import, export and use, which would in turn lead to a significant reduction in risks to human health. Given that the considerations that had led Brazil to ban phorate could be extended to all countries where the substance was still used as an active ingredient in pesticides, the task group had also concluded that the criterion in paragraph (c) (iii) had been met. Ongoing international trade had been confirmed by CropLife International and by the existence of online offers to sell phorate. Accordingly, the task group had concluded that the criterion in paragraph (c) (iv) had been met, and thus that the notification satisfied the criteria in paragraph (c) as a whole.
- 169. There was no evidence that concerns over intentional misuse had been the basis for the final regulatory action: thus, the criterion in paragraph (d) had also been met. The task group had therefore concluded that the notification met all the criteria in Annex II, and had recommended that the Committee consider the notification from Brazil to have met the criteria set out in Annexes I and II to the Convention.

(b) Discussion

- 170. During the ensuing discussion, a number of members expressed agreement with the task group's conclusions. One, however, was of the view that the notification did not meet the criterion in paragraph (b) (iii) of Annex II owing to a lack of scientific evidence: the notification referred to hazardous properties but did not indicate how the conditions of use led to exposure in Brazil or provide bridging information for exposure studies from other countries. Some members disagreed with that assessment on the basis of the guidance in the handbook on page 60 relating to non-threshold carcinogens and World Health Organization classification when there may be a national policy that no exposure for a chemical was acceptable. In such cases, a description of the anticipated use of the chemical could be considered sufficient to meet the criterion in paragraph (b) (iii) and no specific information on exposure was needed. The supporting documentation from Brazil was such a case, as it stated that national legislation prohibited certain types of chemicals based on properties such as endocrine disruption and damage to the reproductive system, and it provided clear evidence of reproductive toxicity and endocrine disruption caused by phorate.
- 171. Responding to a comment by the representative of an observer who suggested that the final regulatory action may not have been based on a risk evaluation as the notification indicated that the substance was banned in 2014 while the risk evaluation had only been completed in 2015, Ms. Frydrych indicated that the supporting information showed the date of entry into force of the final regulatory action as 16 March 2015.
- 172. Following the discussion, the Committee established a group of friends of the chair to attempt to reach consensus on its conclusion.
- 173. Following the work of the friends of the Chair group, Ms. Frydrych reported that the group had resolved all the outstanding issues and concluded that the notification by Brazil met all the criteria set out in Annex II to the Convention. Drawing attention to some of those issues, she said that the question of the dates on which Brazil had conducted a risk re-evaluation and adopted the final regulatory action on phorate had been resolved, since Brazil had clarified that both had occurred in 2015, that the former had preceded the latter and that 2014 had been the year in which the registration of phorate had been cancelled in the country. This clarification had distinguished the date of cancellation of registration from the date of effect of the final regulatory action banning the chemical.
- 174. As for the criterion in paragraph (b) (iii) of Annex II, the friends of the Chair group had concluded that the section on incidents involving direct exposure of humans in the Committee handbook formed a sound basis upon which the Committee could conclude that this criterion had been met. Brazil had submitted information from the World Health Organization on the toxic class of phorate indicating that it was very toxic to humans, together with studies which showed that the chemical presented unacceptably high risks to farmers under prevailing conditions of use in Brazil.
- 175. One member expressed support for a comment from a representative of an observer that it was important that international hazard classifications be linked to specific situations to determine whether the criterion in paragraph (b) (iii) had been met. He suggested that, should the Committee decide to base its conclusion on the above-mentioned section of the handbook, it should be transparent about how it had reached such a conclusion. Another member concurred, suggesting that an explanation could be included in the rationale for phorate to be adopted by the Committee.

(c) Next steps

- 176. Following the discussion, the Committee concluded that the notification by Brazil met all the criteria of Annex II to the Convention and established a contact group, with Ms. Frydrych serving as chair and Ms. Peltola-Thies serving as drafter, to prepare a rationale for that conclusion. The Committee further decided that the contact group could be converted into a drafting group if deemed necessary by the chair of the contact group, and requested the Secretariat to prepare for its consideration a draft decision to recommend the listing of phorate in Annex III to the Convention and a decision to prepare a draft decision guidance document for the chemical.
- 177. Ms. Frydrych subsequently presented a draft rationale for phorate prepared by the group, which, she said, incorporated a paragraph describing Brazil's legislative approach to pesticides and thereby addressed concerns expressed, and which was contained in a conference room paper. During the subsequent discussion by the Committee, additional changes to the draft rationale set out in the conference room paper were suggested. The Committee therefore tasked a drafting group with finalizing the work on the rationale. The Committee subsequently considered and adopted decision CRC-13/4, by which it adopted the rationale, recommended to the Conference of the Parties that it should include phorate in Annex III to the Convention as a pesticide and adopted a workplan for preparing a draft decision guidance document for the chemical. The decision, to which the rationale is annexed, is set out in annex I to the present report; the composition of the intersessional drafting group established to prepare the draft decision guidance document is set out in annex II to the present report; and the workplan is set out in annex III to the present report.

12. Polychlorinated naphthalenes

- 178. The Committee had before it a new notification from Japan for polychlorinated naphthalenes in the industrial category (see UNEP/FAO/RC/CRC.13/14 and the related supporting information (UNEP/FAO/RC/CRC.13/INF/31)). It also had before it a notification for polychlorinated naphthalenes in the industrial category from Canada that it had reviewed at its tenth meeting, as well as the rationale for its decision that the notification had met the requirements of Annex II to the Convention. That rationale and the underlying notification from Canada had been reproduced in document UNEP/FAO/RC/CRC.13/INF/30.
- 179. Mr. Goodman, the drafter of the intersessional task group that had undertaken a preliminary assessment of the notification and the supporting documentation from Japan, reported on the outcomes of the group's preliminary review.

(a) Notification from Japan

- 180. The notification from Japan, which replaced an earlier notification, was for a final regulatory action that banned the use of polychlorinated naphthalenes in the industrial category.
- 181. In terms of the requirements of Annex II, the final regulatory action had been taken to protect human health: the notification cited the chemical's persistence, bioaccumulation and long-term toxicity to humans, and the risk profile summarized its adverse effects on human health, with exposure and monitoring data from various regions of the world. On that basis, the task group had considered the criteria in paragraph (a) of Annex II to have been met.
- 182. With respect to the criteria in paragraph (b) of Annex II, it was reiterated that the Conference of the Parties had endorsed the consideration of risk evaluations under the Montreal Protocol and the Stockholm Convention as adequate support for the fulfilment of the criteria in paragraph (b) (i) and (ii), and Japan had based its final regulatory action on the scientific data found in the risk profile for polychlorinated naphthalenes prepared by the Persistent Organic Pollutants Review Committee. Accordingly, the task group had considered the criteria in paragraph (b) (i) and (ii) to have been met. For the criterion in paragraph (b) (iii), Mr. Goodman informed the Committee that although it had initially been thought to have been met, subsequent follow-up with Japan had revealed that the final regulatory action was an automatic consequence of the listing of the substance under the Stockholm Convention, and was not based on an internal risk evaluation. Consequently, the task group was now of the view that the notification did not meet the paragraph (b) (iii) criterion and, as a result, the notification did not meet the criteria of paragraph (b) as a whole.
- 183. The criteria in paragraph c (i) and (ii) were considered to have been met as the final regulatory action was a ban on all uses and was expected to result in a significant reduction in human exposure. Although the notification did not cite information regarding the applicability of the considerations leading to the regulatory action to other regions, the Stockholm Convention risk profile indicated that global action was warranted given the widespread occurrence in environmental compartments and biota in remote areas as a consequence of the long-range environmental transport of the substance.

Consequently, the task group had determined that the criterion in paragraph (c) (iii) had been met. While no information on the trade in polychlorinated naphthalenes appeared in the information collected by the Secretariat, polychlorinated naphthalenes were listed under Annex A to the Stockholm Convention with specific exemptions for use and production, which suggested that ongoing trade could be expected, and the task group had therefore also determined that the paragraph (c) (iv) criterion had been met. The notification thus satisfied the criteria in paragraph (c) as a whole.

184. The requirements of paragraph (d) were also found to have been met as there was no indication that concern over the intentional misuse of polychlorinated naphthalenes had prompted the regulatory action. Nevertheless, given that the Annex II paragraph (b) (iii) criterion had not been met, the task group had concluded that the notification from Japan did not satisfy all the criteria of Annex II.

(b) Discussion of the notification

- 185. A number of members subsequently indicated their support for the task group's conclusion that the notification from Japan did not satisfy the criterion in paragraph (b) (iii) of Annex II.
- 186. Accordingly, as only one notification of final regulatory action from one prior informed consent region, which had been reviewed at the Committee's tenth meeting, had met the criteria set out in Annex II, the Committee concluded that it would take no further action on the chemicals at present.

13. Triazophos

- 187. The Committee had before it notifications on triazaphos in the pesticides category (see UNEP/FAO/RC/CRC.13/15). The notifications included one from Malaysia and others from seven African Parties, namely Cabo Verde, Chad, the Gambia, Mauritania, the Niger, Senegal and Togo, all of which were members of the Sahelian Pesticides Committee. As they worked together in that capacity to take decisions on the registration of pesticides on a regional basis, their notifications referred to the same final regulatory action. The Committee had before it the supporting documentation from Malaysia (see UNEP/FAO/RC/CRC.13/INF/32) and that from the seven African Parties (see UNEP/FAO/RC/CRC.13/INF/33).
- 188. Ms. Lemsioui, chair of the task group on triazaphos, reported on the group's work, following which Ms. Randall, the drafter of the task group, reported on the outcomes of the group's preliminary review of the notifications.

(a) Notifications

(i) Notification from Malaysia

Ms. Randall said that while Malaysia had banned the import, export, manufacture, sale and use of all triazophos formulations for agricultural uses, other than a limited amount for research and educational purposes, the notification did not explicitly state that the final regulatory action had been taken to protect human health and the environment. The task group had therefore concluded that the notification did not meet the criterion set out in paragraph (a) of Annex II to the Convention. By contrast, the notification did explicitly state that the final regulatory action was not based on a risk or hazard evaluation but rather on violations of maximum residue limits and frequent detection of triazaphos in unauthorized commodities, leading the group to conclude that the criterion set out in paragraph (b) of Annex II was similarly unmet. The notification further stated that the issues relating to residues of triazophos in vegetables sold for domestic consumption or exportation would be resolved, but gave no indication that a risk reduction was expected to result from the final regulatory action. The task group had therefore concluded that the notification did not meet the criterion articulated in paragraph (c). Neither the notification nor the supporting documents indicated that concerns surrounding intentional misuse of triazophos had prompted the final regulatory action and, given the confirmation from the Secretariat that use of the chemical in Malaysia as a pesticide on crops for which it was not registered did not constitute misuse, the task group considered that the criterion in paragraph (d) of Annex II had been met.

(ii) Notifications from Cabo Verde, Chad, Gambia, Mauritania, Niger, Senegal and Togo

- 190. Recalling that the notifications pertained to the same final regulatory action, pursuant to which all products containing triazophos had been banned since 2015 in order to protect human health and the environment, as well as animal health, she said that the criterion in paragraph (a) of Annex II had been met.
- 191. On the strength of the data provided in relation to the ban on the substance, the task group had further concluded that the notifications met the criterion in paragraph (b) (i) of Annex II. Minimal information had been provided, however, on the use of triazophos in the member countries of the

Permanent Interstate Committee for Drought Control in the Sahel and, furthermore, there was no strong link between the information listed in the notifications under toxicological and ecotoxicological data and the situation in those countries. The task group had therefore been unable to determine whether the notifications met the criterion in paragraph (b) (ii) of Annex II. According to information provided in the supporting documentation, moreover, the decision of the Sahelian Pesticides Committee to reject the registration of triazophos-based pesticides appeared to be mainly based on the intrinsic properties of the chemical, poisoning incidents in Burkina Faso, and bans in the European Union. However, bridging and other triazophos-specific information was lacking and the task group had consequently concluded that the notifications did not satisfy the criterion in paragraph (b) (iii) of the Annex.

192. Concerning the criterion in paragraph (c) (i) of Annex II, it was considered met on the grounds that the final regulatory action would effectively reduce the number of uses of triazophos. Insofar as the ban in place would prevent future uses of the pesticide, the criterion in paragraph (c) (ii) was also considered to have been met, together with that in paragraph (c) (iii) in the light of the statement contained in the notifications that the use of triazophos-based pesticides could cause similar adverse effects in other countries. The criterion in paragraph (c) (iv) was, too, considered to have been met on the basis of the confirmation, supported by information provided on trade in chemicals under review by the Chemical Review Committee in document UNEP/FAO/RC/CRC.13/INF/5, that international trade in triazophos was ongoing. Finally, as there was no indication in either the notifications or the supporting documentation that concerns over the intentional misuse of triazophos had prompted the regulatory action, the notifications were considered to have met the criterion in paragraph (d) of Annex II.

(b) Discussion of the notifications

193. In the ensuing discussion, a number of members expressed agreement with the conclusions drawn by the task group concerning the notification submitted by Malaysia. One further noted that the notifications submitted by the seven African Parties contained qualitative statements on risks but lacked bridging information, as well as information concerning the risk or risks that had triggered the regulatory action. Similarly, they provided neither details for enabling verification of the alleged triazophos-related incidents to which they referred, nor information to demonstrate that the final regulatory action was based on those incidents. For those reasons, they did not meet the criterion in paragraph (b) (iii) of Annex II. Other members supported that view and additionally voiced the opinion, with respect to the criterion in paragraph (b) (ii), that the information provided by the African Parties would appear to suggest that it had been met.

(c) Next steps

194. The Committee agreed that the notification submitted by Malaysia did not meet the criteria set out in paragraphs (a), (b) and (c) of Annex II to the Convention and that the notifications submitted by the seven African Parties did not meet those set out in paragraph (b) as a whole in view of their failure to fulfil the criterion in paragraph (b) (iii). It therefore decided to take no further action on the chemical at present.

C. Review of proposals for the inclusion of severely hazardous pesticide formulations in Annex III

1. Lambda-cyhalothrin emulsifiable concentrate 50 g/L

- 195. The Committee had before it a proposal and supporting documentation for the inclusion of lambda-cyhalothrin emulsifiable concentrate 50 g/L as a severely hazardous pesticide formulation in Annex III submitted by Georgia (UNEP/FAO/RC/CRC.13/16), which had been found to comply with the information requirements of part I of Annex IV to the Convention. It also had before it the additional information collected by the Secretariat in accordance with part 2 of Annex IV to the Convention (UNEP/FAO/RC/CRC.13/INF/34/Rev.1).
- 196. Ms. Parvoleta Luleva, the chair of the intersessional task group that had undertaken a preliminary assessment of the proposal and its supporting documentation, reported on the work of the task group with regard to the proposal from Georgia, following which Mr. Holland, the drafter of the intersessional task group, reported on the outcome of the group's preliminary review of the proposal.

(a) Proposal from Georgia

197. The proposal, which was for the pesticide formulation Karate 5 EC (emulsifiable concentrate) containing 50 g/L of lambda-cyhalothrin, was based on a 2016 survey of pesticide practices in Georgia. The survey had found the pesticides most widely used against the main target pests were

those with the active ingredient lambda-cyhalothrin, which were commonly used on crops such as potato, tomato, orchard fruits, as well as for an unregistered use against ecto-parasites on cattle. The survey had collected details of eight incident reports, three of which related to the unregistered use of Karate 5 EC. The reported symptoms, which included headache, skin irritation, eye irritation and coughing, could clearly be linked to intoxication with Karate 5 EC as the symptoms occurred within a very short time of its use. The task group had therefore considered that the evidence indicating that the use of Karate 5 EC in accordance with common and recognized practices within Georgia had resulted in the reported incidents was reliable, and that the criterion in paragraph (a) of part 3 of Annex IV to the Convention had been met.

- 198. The proposal indicated that the use of lambda-cyhalothrin in a large variety of formulations was widespread around the world. The same or similar formulations were used under similar prevailing conditions in neighbouring countries to Georgia, and appeared to be applied to similar crops using similar methods. The additional information collected in accordance with part 2 of Annex IV indicated that lambda-cyhalothrin formulations were used in Germany and Switzerland and were widely available in Africa, North America and South America. The task group had therefore considered the incidents reported by Georgia relevant to other States and regions, and the criterion in paragraph (b) of part 3 to have been met.
- 199. With regard to the criterion in paragraph (c), the reported incidents had occurred under the prevailing conditions of use in Georgia, which included a lack of availability of personal protective equipment and limited label instructions. The survey in Georgia had indicated that farmers did not use the appropriate personal protective equipment, in part because such equipment was not readily available. In addition, the translated label did not have application or safety instructions, information on crops or application rates or precautions regarding safe use. Hungary and Canada had both provided general handling or applicator restrictions for the use of products containing the active ingredient lambda-cyhalothrin, but no specific handling or applicator restrictions had been introduced in Georgia for the application of Karate 5 EC, and any such restrictions would not be expected to be widely applied as the necessary infrastructure was lacking. Based on the above, the task group had concluded that the proposal met the criterion in paragraph (c) of part 3 of Annex IV.
- 200. With respect to the criterion in paragraph (d), the drafter indicated that the task group had had difficulty determining how to assess the significance of the reported effects in relation to the quantity of the formulation used, and had left its conclusion bracketed for further consideration by the Committee. He noted nevertheless that the registered use was widespread, and that four of the reported incidents related to applying pesticide to crops at a standard rate of 0.4-0.5 litres, or 20 to 25 grams, per hectare using backpack sprayers, brooms and brushes, while three related to the unregistered application of Karate 5 EC to cattle with sponges to control ecto-parasites, at a rate of 0.25 grams per litre, or 0.05 litres in 10 litres of water to wash five to six cows.
- 201. Intoxication from intentional misuse was not reported as a reason for the proposal, and the task group had therefore concluded that the criterion in paragraph (e) of part 3 of Annex IV had been met. Although the proposal to include lambda-cyhalothrin emulsifiable concentrate 50 g/L in Annex III was based in part on incidents resulting from the unregistered use to control parasites in cattle, the task group had considered those incidents relevant because the chemical was still being used as a pesticide.

(b) Discussion of the proposal

- 202. Following the presentation, Ms. Luleva responded to a number of questions and comments from members. Addressing queries on the availability and pertinence of exposure data, Ms. Luleva recalled that Article 6 of the Convention only required a developing country or a country with an economy in transition to report on incidents involving a particular pesticide formulation; in her opinion, information on exposure, while very important for assessing the significance of adverse effects, would never be available in those countries as reporting systems had not been established. In response to a question regarding the need for more precise dates for the reported incidents, she said that exact dates were difficult to determine in a retrospective study, and that it was doubtful they were needed to assess the information provided against the criteria. Finally, addressing a comment regarding the total impact of the pesticide, she noted that significance was assessed not in relation to the total quantity imported but rather in relation to the quantity of the formulation used in the individual cases.
- 203. There was substantial discussion on the criteria in paragraph (d) of part 3, and on how to assess the significance of the reported effects in relation to the quantity of the formulation used. Several members referred to the definition of "severely hazardous pesticide formulation" in paragraph (d) of Article 2 of the Convention. One member asserted that based on an internationally recognized poisoning severity coding system, none of the reported incidents had resulted in severe effects,

indicating that the chemical in question should not be considered as a severely hazardous pesticide formulation in accordance with the definition under the Convention. Reacting to that assertion, one member, supported by another, questioned whether the Committee had the mandate to interpret the severity of effects and, even if it had, which of the many internationally recognized systems it should use to do so and whether there was suitable expertise to undertake such a task within the Committee. It would be important, she said, to clarify the procedure to be used before entering into further discussion on the content of the proposal. Responding to the various comments, Mr. Holland noted that the definition of "severely hazardous pesticide formulation" made reference to "severe", but that this was not directly referred to in the criteria in Annex IV themselves. Subsequently, the task group had considered it necessary to downgrade the severity of the adverse effects reported by the proposing Party, although some had been upgraded in the light of information submitted by an observer at the meeting.

204. In response to a number of questions posed by members on how to assess the criteria, a representative of the Secretariat drew attention to paragraph 6 of Article 6 of the Convention. She explained that, in accordance with paragraph 5 of that Article, when reviewing a proposal regarding a severely hazardous pesticide formulation, the Committee was to review the information in the related proposal, which was listed in part 1 of Annex IV, and the additional information collected under part 2 of Annex IV, and, in accordance with the criteria set out in part 3, make a recommendation to the Conference of the Parties. Part 3 did not specify whether the information to be used by the Committee in reviewing the proposals was to be sourced from information collected under part 1 or part 2. Furthermore, it was noted that some of the information, such as the criterion in paragraph (b) for instance, would only be provided in the context of part 2 information.

205. Subsequently, one member said that she still felt unable to assess whether the criterion in paragraph (d) had been met. A number of other members echoed her comment and proposed that the Committee consider postponing the discussion. One member, supported by a number of others, suggested that it would be very helpful for the Secretariat to undertake intersessional work on how to interpret paragraph (d).

(c) Next steps

206. The Committee concluded that it was not in a position to determine whether the proposal from Georgia to include lambda-cyhalothrin emulsifiable concentrate 50 g/L as a severely hazardous pesticide formulation in Annex III to the Convention met all the criteria in part 3 of Annex IV, and agreed to take up the issue at a future meeting only if new information was submitted to the Committee for consideration. The Committee also asked the Secretariat, as a first step, to collect past experience cases to support its future work on severely hazardous pesticide formulations, and to provide that information to the Committee at its fourteenth meeting.

2. Lambda-cyhalothrin capsule suspension 50 g/L

207. The Committee had before it a proposal and supporting documentation for the inclusion of lambda-cyhalothrin capsule suspension 50 g/L as a severely hazardous pesticide formulation in Annex III submitted by Georgia (see UNEP/FAO/RC/CRC.13/17), which had been found to comply with the information requirements of part I of Annex IV to the Convention. It also had before it the additional information collected by the Secretariat in accordance with part 2 of Annex IV to the Convention (UNEP/FAO/RC/CRC. 13/INF/35/Rev.2).

208. Mr. Holland, the drafter of the intersessional task group, reported on the task group's initial assessment of the proposal.

(a) Proposal from Georgia

209. The proposal, which was for the pesticide formulation Karate Zeon 5 CS (capsule suspension) containing 50 g/L of lambda-cyhalothrin, was based on a 2016 survey of pesticide practices in Georgia. The survey had collected the details of only one incident report covering three to five incidents related to the application of the formulation with a brush dipped into a bucket of pesticide, a method commonly used by women for kitchen gardens. The reported symptoms, which included eye irritation, fever, headache, dizziness, weakness and skin irritation, could be clearly be linked to intoxication with Karate Zeon 5 CS as the symptoms occurred within a very short time after its use. The task group had therefore considered that the evidence indicating that the use of Karate Zeon 5 CS in accordance with common and recognized practices within Georgia had resulted in the incident report was reliable, and that the criterion in paragraph (a) of part 3 of Annex IV to the Convention had been met.

- 210. The proposal indicated that the use of lambda-cyhalothrin in a large variety of formulations was widespread around the world. The same or similar formulations were used under similar prevailing conditions in neighbouring countries to Georgia, and appeared to be applied to similar crops using similar methods. The additional information collected in accordance with part 2 of Annex IV indicated that lambda-cyhalothrin formulations were used in Germany and Switzerland and were widely available in Africa, North America and South America. The task group had therefore considered the incidents reported by Georgia relevant to other States and regions, and the criterion in paragraph (b) of part 3 to have been met.
- 211. With regard to the criterion in paragraph (c), the reported incidents had occurred under the prevailing conditions of use in Georgia, which included a lack of availability of personal protective equipment and limited label instructions. The woman in question had not been wearing personal protective equipment when the incidents had occurred. In addition, the translated label did not have application instructions, although it did indicate Hazard Class II and a number of precautions regarding safe use. Hungary and Canada had both provided general handling or applicator restrictions for the use of products containing the active ingredient lambda-cyhalothrin, but no specific handling or applicator restrictions had been introduced in Georgia for the application of Karate 5 EC, and any such restrictions would not be expected to be widely applied as the necessary infrastructure was lacking. Based on the above, the task group had concluded that the proposal had met the criterion in part 3, paragraph (c).
- 212. With respect to the criterion in paragraph (d), the registered use was widespread, and although the dose for the reported incident was not known, the farmers usually applied the formulation to crops at a standard rate of 0.4-0.5 litres, or 20 to 25 grams, per hectare as instructed by the shop advisors. Nevertheless, owing to the lack of details concerning the dose applied, the task group had determined that it was not possible to draw any conclusion on the significance of the reported effects from the use of Karate Zeon 5 CS in relation to the quantity of lambda cyhalothrin used, and had considered the criterion not met.
- 213. Intoxication from intentional misuse was not reported as a reason for the proposal, and the task group had therefore concluded that the criterion in paragraph (e) of part 3 of Annex IV had been met.

(b) Discussion of the proposal

214. Following the presentation, a number of members indicated their support for the task group's conclusions, although one suggested that given the effects reported, the woman's repeated use of the formulation could be construed as intentional misuse. Another member expressed the view that the proposal failed to meet the criteria in paragraphs (a), (b), (c) and (d) of part 3 of Annex IV.

(c) Next steps

215. The Committee concluded that the proposal from Georgia to include lambda-cyhalothrin capsule suspension 50 g/L as a severely hazardous pesticide formulation in Annex III did not meet the criteria of part 3 of Annex IV to the Convention, and that, as the proposal did not meet the criteria, no further action on the pesticide formulation would be taken at present.

VI. Updates to the Handbook of Working Procedures and Policy Guidance for the Chemical Review Committee

- 216. A representative of the Secretariat introduced a draft revision of two sections of the Handbook of Working Procedures and Policy Guidance for the Chemical Review Committee (see UNEP/FAO/RC/CRC.13/18), prepared by an intersessional task group established by the Committee at its twelfth meeting and co-chaired by Mr. Holland and Ms. Randall. The proposed revision would affect two sections of the handbook: the guidance to intersessional task groups on reviewing notifications of final regulatory action, so as to reflect the Committee's experience with proposals related to severely hazardous pesticide formulations; and the working paper on the application of the criteria in paragraph (b) of Annex II to the Convention, in order to include additional examples. Comments and additional information relating to the draft revision of the handbook could be found in document UNEP/FAO/RC/CRC.13/INF/36.
- 217. Mr. Holland presented the work of the group, which he said had held four rounds of discussions and had received and taken into account comments from seven members and three observers. With regard to the first section of the handbook the group had been tasked with revising, he said that the group had added a new annex (annex II) to provide an example of a completed task group review of a severely hazardous pesticide formulation, which was based on three recent proposals submitted by countries related to formulations of paraquat, fenthion and carbofuran. As for the second

section of the handbook revised by the group, two new examples had been added to the section that related to two notifications that provided good examples of bridging information, namely, a notification on methamidophos submitted by Brazil and a notification on endosulfan submitted by members of the Sahelian Pesticides Committee that the Chemical Review Committee had considered at its ninth and fifth meetings, respectively.

- 218. The Committee adopted the proposed changes to the handbook as set out in document UNEP/FAO/RC/CRC.13/18.
- 219. In addition, at the suggestion of a representative of the Secretariat, the Committee decided to request the Secretariat to update section 2.6 of the handbook, on a process for determining evidence of ongoing international trade, in the light of the relevant discussions held at the current meeting. In addition, the Secretariat would update section 1.4 of the handbook, on guidance to assist parties and the Committee when a chemical under consideration was a persistent organic pollutant listed under the Stockholm Convention, to add two examples discussed at the current meeting, relating to the notification of final regulatory action on PFOS from China and hexabromocyclododecane from Japan. These revisions to the handbook would be considered by the Committee at its fourteenth meeting.

VII. Venue and date of the fourteenth meeting of the Committee

220. The Committee agreed to hold its fourteenth meeting at the headquarters of FAO in Rome from 10 to 14 September 2018, back to back with the fourteenth meeting of the Persistent Organic Pollutants Review Committee of the Stockholm Convention. The Committee also decided, following consultation with the Bureau, that the duration of the meeting might be adjusted depending on the number of notifications or proposals to be considered by the Committee at the meeting.

VIII. Other matters

- 221. The representative of the Secretariat, reporting on activities aimed at supporting effective participation in the work of the Committee by members, observers and other stakeholders, said that two briefing webinars on the agenda and organization of the Committee's work for the current meeting had been held on 12 and 14 September 2017. Two debriefing webinars on the outcomes of the meeting were furthermore scheduled to take place on 20 and 22 November 2017.
- 222. As part of the technical assistance programme for the implementation of the conventions over the biennium 2016–2017, the Secretariat had also developed online training modules, in particular one relating to the listing of chemicals under the Rotterdam and Stockholm conventions. Acting on the Committee's recommendation that it should take into account suggestions of Committee members in its technical assistance activities relating to notifications of final regulatory actions, it had furthermore taken stock of available information on risk evaluations, with a particular focus on bridging information, and identified where such information was available in a user-friendly format for designated national authorities. Citing as examples the Final Regulatory Action Evaluation Toolkit and the guidance for completing the form for notification of final regulatory actions to ban or severely restrict a chemical, she said that the Secretariat would continue to identify further opportunities for providing technical assistance to designated national authorities on bridging and the preparation of guidance.
- 223. With respect to upcoming activities, the Secretariat planned to organize a face-to-face training activity aimed at enhancing the effective participation of Parties and others in the work of the Committee and that of the Stockholm Convention, with the support of members from both committees. Subject to the availability of resources, it was also planning to conduct similar joint activities in other regions during the biennium 2018–2019. An orientation workshop was furthermore planned for April 2018 in order to familiarize new members with the operations of the Committee, including the working procedure and policy guidance used to achieve consistency and transparency in its work.
- 224. In the ensuing discussion, one member underscored the need to develop effective tools for facilitating dialogue and exchange among incoming and outgoing members of the Committee so that lessons learned could be effectively harnessed to enhance the Committee's performance of its mandate. Another member said it was also important to explore ways and means of ensuring that those in regions facing technical challenges were able to participate in such important activities as the webinars mentioned.
- 225. The representative of the Secretariat welcomed the comments made, saying that the Secretariat would take them into account in its ongoing efforts to support full and effective participation in the Committee's work.

226. The Committee took note of the information provided.

IX. Adoption of the report

227. The Committee adopted the report on the basis of the draft report that had been circulated during the meeting (UNEP/FAO/RC/CRC.13/L.1), as orally amended, and on the understanding that the finalization of the report would be entrusted to the Rapporteur, working in consultation with the Secretariat.

X. Closure of the meeting

228. Following the customary exchange of courtesies, the Chair declared the meeting closed at 5.40 p.m. on Thursday, 26 October 2017.

Annex I

Decisions adopted by the Chemical Review Committee at its thirteenth meeting

CRC-13/1: Acetochlor

CRC-13/2: Hexabromocyclododecane

CRC-13/3: Mirex CRC-13/4: Phorate

CRC-13/1: Acetochlor

The Chemical Review Committee.

Recalling Article 5 of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade,

- 1. *Concludes* that the notifications of final regulatory action for acetochlor submitted by the European Union and by Burkina Faso, Cabo Verde, Chad, the Gambia, Guinea-Bissau, Mali, Mauritania, the Niger, Senegal and Togo¹ meet the criteria set out in Annex II to the Convention;
- 2. *Adopts* the rationale for the Committee's conclusion set out in the annex to the present decision:
- 3. *Recommends*, in accordance with paragraph 6 of Article 5 of the Convention, that the Conference of the Parties should list acetochlor in Annex III to the Convention as a pesticide;
- 4. *Decides*, in accordance with paragraph 1 of Article 7 of the Convention, to prepare a draft decision guidance document for acetochlor;
- 5. Also decides, in accordance with the process for drafting decision guidance documents set out in decision RC-2/2 and amended by decision RC-6/3, that the composition of the intersessional drafting group to prepare the draft decision guidance document for acetochlor and the workplan of the group shall be as set out in annexes II and III, respectively, to the report of the Committee on the work of its thirteenth meeting.

Annex to decision CRC-13/1

Rationale for the conclusion by the Chemical Review Committee that the notifications of final regulatory action submitted by Burkina Faso, Cabo Verde, Chad, Gambia, Guinea-Bissau, Mali, Mauritania, Niger, Senegal, Togo and the European Union in respect of acetochlor in the pesticide category meet the criteria of Annex II to the Rotterdam Convention

- 1. In reviewing the notifications of final regulatory action by Burkina Faso, Cabo Verde, Chad, the Gambia, Guinea-Bissau, Mali, Mauritania, the Niger, Senegal, Togo and the European Union to ban acetochlor as a pesticide, together with the supporting documentation provided by those parties, the Committee was able to confirm that the final regulatory action had been taken to protect human health and the environment. The notifications from those parties were found to meet the information requirements of Annex I to the Rotterdam Convention.
- 2. The notifications and supporting documentation were made available to the Committee for its consideration in documents UNEP/FAO/RC/CRC.13/2, UNEP/FAO/RC/CRC.13/3, UNEP/FAO/RC/CRC.13/INF/7 and UNEP/FAO/RC/CRC.13/INF/8. Information on ongoing international trade was provided by the European Union and CropLife International and made available in document UNEP/FAO/RC/CRC.13/INF/5.

I. Burkina Faso, Cabo Verde, Chad, Gambia, Guinea-Bissau, Mali, Mauritania, Niger, Senegal and Togo

(a) Scope of the notified regulatory action

3. The regulatory action notified by the member countries of the Permanent Inter-State Committee on Drought Control in the Sahel (CILSS), namely Burkina Faso, Cabo Verde, Chad, the Gambia, Guinea-Bissau, Mali, Mauritania, the Niger, Senegal and Togo (hereinafter referred to as the CILSS countries), relates to the use of acetochlor as a pesticide. The final regulatory action, which entered into force on 20 March 2017, bans the use of all pesticide formulations containing acetochlor due to its potential risk to human health and the environment. The import, manufacture for domestic use, distribution and sale are also banned (UNEP/FAO/RC/CRC.13/3, annex, part B, sects. 2.1, 2.2.1 and 2.2.3).

¹ See UNEP/FAO/RC/CRC.13/3.

4. The notification was found to comply with the information requirements of Annex I.

(b) Annex II paragraph (a) criterion

- (a) Confirm that the final regulatory action has been taken in order to protect human health or the environment;
- 5. The Committee confirms that the regulatory action was taken to protect human health and the environment (UNEP/FAO/RC/CRC.13/3, annex, part B, sects. 2.4.1 and 2.4.2).
- 6. Acetochlor has been used as a pesticide in the CILSS countries. Acetochlor was used as a selective herbicide on maize (UNEP/FAO/RC/CRC.13/3, sect. 2.3.1). Several pesticide formulations containing acetochlor were authorized in the CILSS countries between 2010 and 2012. In 2014 a working session of the Sahelian Pesticides Committee was held. Based on the proposal forwarded during this working session, the Coordinating Minister decided to ban pesticide formulations containing acetochlor as from 20 March 2017. The Sahelian Pesticides Committee recommended halting the authorization of pesticide formulations containing acetochlor owing to the following:
 - Risks of water resources contamination from several metabolites including t-norchloro-acetochlor.
 - High risk to aquatic organisms and long-term risks to herbivorous birds and to human beings following prolonged exposure.
- 7. In addition, the following were taken into account (UNEP/FAO/RC/CRC.13/INF/8):
 - Difficulties experienced by the local population in obtaining adequate personal protection equipment.
 - The fragile ecology of CILSS countries, characterized by torrential rains on soils that are
 often poor in organic matter and thus highly subject to erosion and leaching.
 - The absence of an environmental management system respecting buffer strips between treated fields and water courses, the use of surface water as drinking water for man and animals.
 - The use of groundwater as the only reservoir of drinking water.
 - The existence of alternatives to the use of acetochlor.
- 8. In 2014, on the recommendation of the Sahelian Pesticides Committee, acetochlor was banned by decision of the CILSS Coordinating Minister due to unacceptable risk to the health of populations and unacceptable risk to aquatic organisms and herbivorous birds in the environment, as well as the difficulty faced by users in the countries of the Sahel in using acetochlor without unacceptable risk. The ban or restrictions on the use of acetochlor in pesticide formulations in several other countries, such as the United States of America and the European Union, are also mentioned (UNEP/FAO/RC/CRC.13/INF/8).
- 9. In the notification and supporting documentation, risk to human health because of high risk of surface and groundwater contamination by acetochlor and its metabolites is reported.
- 10. In the United States, due to concerns over groundwater contamination, acetochlor cannot be used on coarse soils (for example sandy soil with less than 3 per cent of organic matter) where the depth of groundwater in less than 30 feet. Acetochlor cannot be applied with any irrigation system (irrigation by flooding included) nor can it be applied by aerial application. Acetochlor cannot be applied directly on water or in areas where surface water is present. Furthermore, acetochlor must not be mixed or filled less than 50 feet from surface water or wells, unless adequate confinement or disposal measures exist. Each of these measures is intended to prevent acetochlor from migrating to groundwater and/or surface water resources (United States, Environmental Protection Agency (EPA), 2006).
- 11. The supporting documentation indicates that an environmental management system respecting buffer strips between treated fields and streams as a precaution is not possible in the Sahel.
- 12. Modelling values for organic carbon content are between 1.06 per cent to 1.36 per cent for soils within the perimeter (Direction culture/SN-SOSUCO, 2008). The mean organic carbon content in soils near the rivers is equal to 1.06 per cent (Ouedraogo et al, 2012). The fragile ecology of CILSS countries is sometimes characterized by torrential rainfall on soils which are often poor in organic matter and therefore subject to erosion and leaching.
- 13. The results of the modelling study by Ouedraogo et al (2012) indicated that acetochlor had a very high potential to contaminate surface water under actual usage conditions in Burkina Faso.

- 14. In a study measuring pesticide concentrations in two lakes in Burkina Faso, acetochlor concentrations of up to 53.1 µg/L were recorded (Soleri, 2013).
- 15. Contamination of groundwater and surface water in the CILSS countries results in the contamination of drinking water, since these are used as sources for drinking water. In countries like Burkina Faso, more than half of the farmers (67.5 per cent) have a water point in their fields or nearby. Most water points are less than 100 metres from the fields (Toe, 2010). Water pesticide contamination via different routes may result from the proximity of water points to the fields. Water from such water points was drunk by human beings in 50 per cent of cases, used for the preparation or the dilution of pesticides in 29.26 per cent and for animal drinking in 26.96 per cent (Toe, 2010), explaining the presence of acetochlor in some water courses in Burkina Faso (Soleri, 2013).
- 16. The CILSS countries concluded that using acetochlor as a pesticide under these conditions resulted in an unacceptable risk to human and animal health because of drinking water contamination.
- 17. In the notification and supporting documentation, risks to operators are also reported.
- 18. Reference is made to the European Food Safety Authority (EFSA) report (2011), which mentions that health risks for operators were accentuated because the estimated exposure to European Community formulations recorded higher values (between 1435 per cent and 5550 per cent) than the acceptable operator exposure level (AOEL), despite the use of trailed sprayer and the use of gloves during mixing, loading and application. Without personal protective equipment, values up to 35550 per cent of the AOEL are reported.
- 19. Contrary to the recommended use in the United States and European Union member States, the recommended use in Sahel countries was low-volume application (knapsack sprayer) of the formulation diluted with water at doses between 2.5 and 3.5 l/ha on cotton. Frequency of application was once a crop-year. Recommended personal protection devices were protective clothing, goggles and gloves.
- 20. In the CILSS countries, people experience difficulties in finding suitable personal protective equipment. Farmers don't use appropriate personal protective equipment (Gomgnimbou et al., 2010, Ouedraogo et al., 2009, Toe et al, 2010). The protective equipment sold to farmers consists essentially of masks, boots and gloves with masks being the most used (40 per cent of farmers use them, 39 per cent of which are dust masks and 1 per cent are cartridge filter masks), followed by boots (28.8 per cent), with the combination of the two being the least used (4.5 per cent). A total of 12.62 per cent of farmers wear both masks and boots, while only 0.93 per cent wear gloves, boots, overall, mask and glasses at the same time. Masks with filter cartridges are worn in combination with gloves, boots, coveralls and goggles in only 0.31 per cent of cases (Toe, 2010). People who do not use adequate personal protective equipment should not be allowed to carry out treatments which require the full protection of operators (as for acetochlor-based formulations).
- 21. In the notification and supporting documentation, the following risks to the environment are reported:
- 22. The modelling study by Ouedraogo et al (2012) predicts that acetochlor has a very high potential to contaminate surface water if used in sugar cane production in Burkina Faso at rates of 3.54 kg a.i/ha.
- 23. In a study measuring pesticide concentrations in two lakes in Burkina Faso, acetochlor concentrations of up to $53.1 \mu g/L$ were recorded (Soleri, 2013).
- 24. Contamination of groundwater and surface water in the CILSS countries can result in high short-term risk to birds drinking contaminated water following post-emergence treatment.
- 25. Further, a potential high risk to non-target terrestrial plants and long term-high risk to herbivorous birds were reported.
- 26. The notification describes the fact that the final regulatory action prohibits all use of acetochlor containing pesticide formulations after 20 March 2017 and is therefore expected to lead to a significant decrease in the quantity of the chemical used, resulting in a significant reduction of risk to human health and the environment.
- 27. The Committee confirms that the criterion in paragraph (a) is met.

(c) Annex II paragraph (b) criteria

- (b) Establish that the final regulatory action has been taken as a consequence of a risk evaluation. This evaluation shall be based on a review of scientific data in the context of the conditions prevailing in the Party in question. For this purpose, the documentation provided shall demonstrate that:
 - (i) Data have been generated according to scientifically recognized methods;
 - (ii) Data reviews have been performed and documented according to generally recognized scientific principles and procedures;
- 28. The notifications from the CILSS countries took into account scientific information from a variety of sources. In the annex to the decision to ban acetochlor, reference is made to several national reports, as well as reports from the United States EPA, EFSA and publications published in peer-reviewed journals.
- 29. The Committee concludes that in the supporting documentation provided by CILSS countries, data have been generated according to scientifically recognized methods and that data reviews have been performed and documented according to generally recognized scientific principles and procedures.
- 30. Consequently, the Committee confirms that the criteria in paragraph (b) (i) and (ii) are met.
 - (iii) The final regulatory action was based on a risk evaluation involving prevailing conditions within the Party taking the action;
- 31. The final regulatory action to ban acetochlor was based on a risk evaluation. The CILSS countries found that acetochlor posed risks to human health and the environment that caused great difficulties for users in the CILSS countries in using acetochlor without unacceptable risk. The risks to human health (by contamination of groundwater and surface water, which are both used as drinking water), operators (due to the absence of sufficient personal protection measures) and to the environment (due to the intrinsic properties of the substance, the risk of water contamination and the specific conditions in the Sahel) make it very difficult to use acetochlor safely.
- 32. The risk evaluation took into account the conditions within the notifying Parties, for example the conditions of application of the substance, the availability of personal protective equipment, and the regional environmental circumstances.
- 33. Consequently, the Committee confirms that the criterion in paragraph (b) (iii) is met.
- 34. The Committee confirms that the criteria in paragraph (b) are met.

(d) Annex II paragraph (c) criteria

- (c) Consider whether the final regulatory action provides a sufficiently broad basis to merit listing of the chemical in Annex III, by taking into account:
 - (i) Whether the final regulatory action led, or would be expected to lead, to a significant decrease in the quantity of the chemical used or the number of its uses;
- 35. The use of acetochlor is banned by the final regulatory action which bans all pesticide formulations containing acetochlor.
- 36. Since the regulatory action bans the use of acetochlor as a pesticide, it is expected that the regulatory action will lead to a significant reduction in the quantity of the chemical used.
- 37. Therefore the Committee concludes that the criterion in paragraph c (i) is met.
 - (ii) Whether the final regulatory action led to an actual reduction of risk or would be expected to result in a significant reduction of risk for human health or the environment of the Party that submitted the notification;
- 38. Since the regulatory action to ban the use of pesticides containing acetochlor is expected to significantly reduce the quantity of the chemical used, it is also expected that the risks to the environment will be significantly reduced.
- 39. Therefore the Committee concludes that the criterion in paragraph c (ii) is met.
 - (iii) Whether the considerations that led to the final regulatory action being taken are applicable only in a limited geographical area or in other limited circumstances;

- 40. The notification states that the use of pesticides containing acetochlor may cause similar problems to health and the environment in other countries. The Committee concludes that similar problems are likely to be encountered in other countries.
- 41. Therefore the Committee concludes that the criterion in paragraph c (iii) is met.
 - (iv) Whether there is evidence of ongoing international trade in the chemical;
- 42. The notification from the CILSS countries gives no information on the estimated quantity of acetochlor produced, imported, exported and used.
- 43. However, information gathered by the Secretariat shows that international trade in acetochlor is ongoing (UNEP/FAO/RC/CRC.13/INF/5).
- 44. Therefore the Committee concludes that the criterion in paragraph c (iv) is met.

(e) Annex II paragraph (d) criterion

- (d) Take into account that intentional misuse is not in itself an adequate reason to list a chemical in Annex III.
- 45. There is no indication in the notification that concerns over intentional misuse prompted the regulatory action.
- 46. Therefore the Committee confirms that the criterion in paragraph (d) is met.

(f) Conclusion

47. The Committee concludes that the notifications of final regulatory action by Burkina Faso, Cabo Verde, Chad, the Gambia, Guinea-Bissau, Mali, Mauritania, the Niger, Senegal and Togo meet the criteria set out in Annex II to the Convention.

II. European Union

(a) Scope of the notified regulatory action

- 48. The regulatory action notified by the European Union relates to the use of acetochlor as a pesticide. The marketing or the use of acetochlor is banned by the final regulatory action which states that it is prohibited to place on the market or use plant protection products containing acetochlor in the European Union. Acetochlor is not approved for placing on the market pursuant to Regulation (EC) No. 1107/2009 concerning the placing of plant protection products on the market (which replaces Directive 91/414/EEC).
- 49. All authorizations for plant protection products containing acetochlor had to be withdrawn by the member States by 23 June 2012 and all uses of plant protection products containing acetochlor are prohibited as of 23 June 2013 at the latest.
- 50. The notification was found to comply with the information requirements of Annex I.

(b) Annex II paragraph (a) criterion

- (a) Confirm that the final regulatory action has been taken in order to protect human health or the environment;
- 51. The Committee confirms that the regulatory action was taken to protect human health and the environment (UNEP/FAO/RC/CRC.11/6, sect. 2.4.2 of the European Union notification).
- 52. Acetochlor was used as a herbicide on maize to control and reduce annual weeds through broadcast spraying (UNEP/FAO/RC/CRC.13/3, section 2.3.1).
- 53. A risk assessment was carried out on the basis of Directive 91/414/EEC (replaced by Regulation (EC) No 1107/2009). It was concluded that it was not demonstrated that it may be expected that plant protection products containing acetochlor satisfied in general the requirements laid down in Article 5 (1) (a) and (b) of Directive 91/414/EEC (UNEP/FAO/RC/CRC.13/3, sect. 2.4.1).
- 54. According to the risk assessment related to human health the following concerns were identified (UNEP/FAO/RC/CRC.13/3, annex, part A, sect. 2.4.2.1):
 - The potential human exposure is above 100 per cent of the acceptable daily intake (ADI) when predicted concentrations of the groundwater metabolites t-oxanilic acid, t-sulfinylacetic acid, t-sulfonic acid and s-sulfonic acid that have been assessed as relevant metabolites are taken into account.

- There is a potential human exposure to metabolite t-norchloro acetochlor when surface water is abstracted for drinking water, which has been assessed as relevant from a toxicological hazard assessment perspective.
- A high potential for groundwater contamination has been identified over significant areas of the European Union by the metabolites t-oxanilic acid, t-sulfinylacetic acid, t-sulfonic acid and s-sulfonic acid, which have been assessed as relevant metabolites.
- No valid method is available to quantify residues in food of plant origin.
- 55. Pursuant to the risk assessment related to the environment the following concerns were identified (UNEP/FAO/RC/CRC.13/3, annex, part B, sect. 2.4.2.2):
 - Acetochlor is very toxic to all groups of aquatic organisms and there is a high risk to aquatic organisms.
 - A high acute risk to birds from the uptake of contaminated drinking water was indicated for the post-emergence applications.
 - There is a high risk to non-target terrestrial plants. The risk assessment suggests that an in-field no spray buffer zone of 5 metres is required to protect non-target plants in the off-field area.
 - A high long-term risk for herbivorous birds has been identified.
- 56. The final regulatory action is expected to lead to a significant decrease in the quantity of the chemical used, resulting in significant reduction of risk to human health and the environment.
- 57. The Committee concludes that the criterion in paragraph (a) is met.

(c) Annex II paragraph (b) criteria

- (b) Establish that the final regulatory action has been taken as a consequence of a risk evaluation. This evaluation shall be based on a review of scientific data in the context of the conditions prevailing in the Party in question. For this purpose, the documentation provided shall demonstrate that:
 - (i) Data have been generated according to scientifically recognized methods;
 - (ii) Data reviews have been performed and documented according to generally recognized scientific principles and procedures;
- 58. Prior to the final regulatory action, a risk assessment was carried out on the basis of Directive 91/414/EEC (replaced by Regulation (EC) No 1107/2009), which provides for the European Commission to issue a work programme for the examination of existing active substances used in plant protection products with a view to their possible inclusion in Annex I to the Directive, and in accordance with the provisions of Regulation (EC) No 1095/2007 and Regulation (EC) No 2229/2004.
- 59. A member State was designated to undertake the risk assessment based on the information submitted by the applicant and to establish a draft assessment report, which was subject to peer review during which the European Food Safety Authority (EFSA) undertook consultations with experts from member States as well as with the applicant.
- 60. Based on the results of the risk assessment, the European Commission established a draft review report which was submitted to peer review by the Standing Committee on the Food Chain and Animal Health, which concluded that it was not demonstrated that it may be expected that plant protection products containing acetochlor satisfied in general the requirements laid down in Article 5 (1) (a) and (b) of Directive 91/414/EEC, leading to the adoption of a decision on non-approval of acetochlor (Commission Implementing Regulation (EU) No 1372/2011 of 21 December 2011).
- 61. The evaluation was based on a review of scientific data taking into account the conditions prevailing in the European Union (intended uses, recommended application rates, good agricultural practices). Only data that had been generated according to scientifically recognized methods were validated and used for the evaluation. Moreover, data reviews were performed and documented according to generally recognized scientific principles and procedures (UNEP/FAO/RC/CRC.13/3, annex, part B, sect. 2.4.1).
- 62. Therefore the Committee established that the data reviewed for the risk evaluation were generated according to scientifically recognized methods and that the data reviews were performed according to generally recognized scientific principles and procedures.

- (iii) The final regulatory action was based on a risk evaluation involving prevailing conditions within the Party taking the action;
- 63. The final regulatory action to ban acetochlor was based on a risk evaluation. The risk analysis considered the herbicide use on maize.
- 64. The decision to prohibit the use of acetochlor as a pesticide was based on a data package which consists of a wide range of information concerning identity, physical/chemical/technical properties and methods of analysis, mammalian toxicology, residues, environmental fate and behaviour, and ecotoxicology, including proposed conditions of use within the European Union, including the intended uses, the recommended application rates and good agricultural practices. All the information available in the data package has been taken into account in this risk evaluation, and therefore in the decision by the European Union. The EFSA conclusion was reached on the basis of the evaluation of the representative use in the European Union.
- 65. Consequently, the Committee confirms that the criterion in paragraph b (iii) is met.
- 66. The Committee confirms that the paragraph (b) criteria are met.

(d) Annex II paragraph (c) criteria

- (c) Consider whether the final regulatory action provides a sufficiently broad basis to merit listing of the chemical in Annex III, by taking into account:
 - (i) Whether the final regulatory action led, or would be expected to lead, to a significant decrease in the quantity of the chemical used or the number of its uses;
- 67. The use of acetochlor is banned by the final regulatory action which entered into force on 23 June 2013. The final regulatory action bans the use of acetochlor as a pesticide by prohibiting the placement on the market or use of plant protection products containing acetochlor in the European Union. Acetochlor is not approved for placing on the market pursuant to Regulation (EC) No. 1107/2009 concerning the placing of plant protection products on the market (which replaces Directive 91/414/EEC).
- 68. The final regulatory action is therefore expected to lead to a significant decrease in the quantity of the chemical used, resulting in a significant reduction in risk to human health and the environment.
- 69. Therefore the Committee confirms that the criterion in paragraph (c) (i) is met.
 - (ii) Whether the final regulatory action led to an actual reduction of risk or would be expected to result in a significant reduction of risk for human health or the environment of the Party that submitted the notification;
- 70. It is expected that since the regulatory action to ban the use of acetochlor significantly reduces the quantity of the chemical used, the risks to human health and the environment will also be significantly reduced.
- 71. Therefore the Committee confirms that the criterion in paragraph (c) (ii) is met.
 - (iii) Whether the considerations that led to the final regulatory action being taken are applicable only in a limited geographical area or in other limited circumstances;
- 72. The notification states that similar health and environmental problems are likely to be encountered in other countries where the substance is used, particularly in developing countries (UNEP/FAO/RC/CRC.13/3, annex, part B, sect. 2.5.2).
- 73. Therefore the Committee confirms that the criterion in paragraph (c) (iii) is met.
 - (iv) Whether there is evidence of ongoing international trade in the chemical;
- 74. The notification from the European Union gives no information on the estimated quantity of acetochlor produced, imported, exported and used.
- 75. However, information gathered by the Secretariat shows that international trade in acetochlor is ongoing (UNEP/FAO/RC/CRC.13/INF/5).
- 76. Therefore the Committee confirms that the criterion in paragraph (c) (iv) is met.

(e) Annex II paragraph (d) criterion

- (d) Take into account that intentional misuse is not in itself an adequate reason to list a chemical in Annex III.
- 77. There is no indication in the notification that concerns over intentional misuse prompted the regulatory action.
- 78. Therefore the Committee confirms that the criterion in paragraph (d) is met.

(f) Conclusion

79. The Committee concludes that the notification of final regulatory action by the European Union meets the criteria set out in Annex II to the Convention.

Conclusion

80. The Committee concludes that the notifications of final regulatory action by Burkina Faso, Cabo Verde, Chad, the Gambia, Guinea-Bissau, Mali, Mauritania, the Niger, Senegal, Togo and the European Union meet the criteria set out in Annex II to the Convention. The Committee also concludes that the final regulatory actions taken by these Parties provide a sufficient basis to merit including acetochlor in Annex III to the Rotterdam Convention in the pesticide category and that a decision guidance document should be drafted on the basis of the notifications.

CRC-13/2: Hexabromocyclododecane

The Chemical Review Committee,

Recalling Article 5 of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade,

- 1. *Concludes* that the notifications of final regulatory action for hexabromocyclododecane submitted by Japan and Norway² meet the criteria set out in Annex II to the Convention;
- 2. *Adopts* the rationale for the Committee's conclusion set out in the annex to the present decision;
- 3. *Recommends*, in accordance with paragraph 6 of Article 5 of the Convention, that the Conference of the Parties should list hexabromocyclododecane in Annex III to the Convention as an industrial chemical;
- 4. *Decides*, in accordance with paragraph 1 of Article 7 of the Convention, to prepare a draft decision guidance document for hexabromocyclododecane;
- 5. Also decides, in accordance with the process for drafting decision guidance documents set out in decision RC-2/2 and amended by decision RC-6/3, that the composition of the intersessional drafting group to prepare the draft decision guidance document for hexabromocyclododecane and the workplan of the group shall be as set out in annexes II and III, respectively, to the report of the Committee on the work of its thirteenth meeting.

Annex to decision CRC-13/2

Rationale for the conclusion by the Chemical Review Committee that the notifications of final regulatory action submitted by Japan and Norway in respect of hexabromocyclododecane in the industrial category meet the criteria of Annex II to the Rotterdam Convention

1. The notifications on hexabromocyclododecane from Japan and Norway have been verified by the Secretariat as containing the information required by Annex I to the Rotterdam Convention. These notifications underwent a preliminary review by the Secretariat and the Bureau, which evaluated whether or not the notifications appeared to meet the requirements of the Convention.

² See UNEP/FAO/RC/CRC.13/8.

2. The notifications, supporting documentation and results of the preliminary review were made available to the Chemical Review Committee for their consideration (documents UNEP/FAO/RC/CRC.13/8, UNEP/FAO/RC/CRC.13/INF/16, UNEP/FAO/RC/CRC.13/INF/17/Rev.2, UNEP/FAO/RC/CRC.13/INF/18).

I. Japan

(a) Scope of the regulatory action notified by Japan

3. The regulatory action notified by Japan relates to the industrial uses of hexabromocyclododecane (CAS 25637-99-4). The notification stated that the manufacture, import and use of hexabromocyclododecane are banned. The regulatory document cited was the Chemical Substances Control Law and its Enforcement Order. The Chemical Substances Control Law came into force on 1 May 2014.

(b) Annex II paragraph (a) criterion

- (a) Confirm that the final regulatory action has been taken in order to protect human health or the environment;
- 4. The Committee confirms that the regulatory action was taken to protect human health. The notification cited the persistence, bioaccumulation and long-term toxicity to humans. The regulatory action was put in place to reduce human exposure to the substance.
- 5. In Japan, hexabromocyclododecane had been used as a flame retardant.
- 6. The notification cited the information on hexabromocyclododecane from the risk profile document prepared by the Persistent Organic Pollutants Review Committee of the Stockholm Convention and provided as supporting information document UNEP/FAO/RC/CRC.13/INF/17. The risk profile document summarizes the adverse effects on human health with exposure and monitoring data from various regions of the world, including some monitoring data from Japan.
- 7. The Committee confirms that the criterion in paragraph (a) of Annex II is met.

(c) Annex II paragraph (b) criteria

- (b) Establish that the final regulatory action has been taken as a consequence of a risk evaluation. This evaluation shall be based on a review of scientific data in the context of the conditions prevailing in the Party in question. For this purpose, the documentation provided shall demonstrate that:
 - (i) Data have been generated according to scientifically recognized methods;
 - (ii) Data reviews have been performed and documented according to generally recognized scientific principles and procedures;
- 8. The notification states that the final regulatory action was based on a risk or hazard evaluation. In the notification, reference is made to the risk profile document for hexabromocyclododecane prepared by the Persistent Organic Pollutants Review Committee of the Stockholm Convention.
- 9. The notifying Party also provided the risk profile document as supporting information (UNEP/FAO/RC/CRC.13/INF/16).
- 10. At its third meeting, the Conference of the Parties endorsed the approach recommended by the Secretariat, namely that the Committee should consider risk evaluations under the Montreal Protocol and the Stockholm Convention as adequate support for meeting the criteria in paragraph (b) (i) and (ii), as long as the Committee was able to establish that a risk evaluation considering the conditions in the Party has been undertaken. Japan based its regulatory action on the scientific data found in the risk profile for hexabromocyclododecane as prepared by the Persistent Organic Pollutants Review Committee of the Stockholm Convention.
- 11. The Committee confirms that the criteria in paragraph (b) (i) and (ii) of Annex II are met.
 - (iii) The final regulatory action was based on a risk evaluation involving prevailing conditions within the Party taking the action;
- 12. The notification from Japan indicates that the regulatory action was based on a risk or hazard evaluation, which is provided with a focused summary in English, and also includes the risk profile document for hexabromocyclododecane as prepared by the Persistent Organic Pollutants Review Committee of the Stockholm Convention.

- 13. When a substance is listed by the Stockholm Convention and is on the market in Japan, the Japanese Government conducts a risk evaluation on the substance and its potential risks to inform regulatory measures. This internal risk evaluation, in combination with the risk profile document for hexabromocyclododecane, were supplied as supporting information by Japan in document UNEP/FAO/RC/CRC.13/INF/17/Rev.2. A brief summary in English of that risk evaluation was provided along with the table of contents of the risk evaluation.
- 14. The internal risk evaluation was based on the monitoring data from fiscal year 2009 to fiscal year 2012 and revealed a number of sites with a high ecological risk, while there were no sites with any human health risk. The risk evaluation included a hazard assessment, an exposure assessment and risk estimation based on monitoring data, and an exposure assessment and risk estimation based on environmental releases estimated from manufacture data.
- 15. The Persistent Organic Pollutants Review Committee's risk profile3 cites a Japanese study which found that hexabromocyclododecane levels in human milk appear to mirror the market consumption of hexabromocyclododecane. In mothers' milk from Japanese women (age 25–29) hexabromocyclododecane levels were below the detection limit in all samples collected during the 10-year period from 1973 to 1983, but then increased from 1988 onwards.
- 16. The Persistent Organic Pollutants Review Committee's risk profile states the developmental and neurotoxic potential of hexabromocyclododecane observed in animal studies give cause for concern when considering risks to human health, particularly for unborn babies and young children. This concern, along with the human milk monitoring study and results of other studies in the risk profile document on cord serum, suggests some risk to unborn babies and young children in Japan. Despite there being no quantification of the risk for the exposure levels provided, the risk is relevant given the observed bioaccumulation and biomagnification of hexabromocyclododecane.
- 17. Consequently, the Committee confirms that the criterion in paragraph (b) (iii) of Annex II is met.
- 18. The Committee confirms that the criteria of paragraph (b) of Annex II are met.

(d) Annex II paragraph (c) criteria

- (c) Consider whether the final regulatory action provides a sufficiently broad basis to merit listing of the chemical in Annex III, by taking into account:
 - (i) Whether the final regulatory action led, or would be expected to lead, to a significant decrease in the quantity of the chemical used or the number of its uses;
- 19. The Japanese notification does not provide estimated quantities of hexabromocyclododecane previously imported, produced or used. The notification cites previous industrial uses in Japan. The regulatory action reported by Japan is a ban on all industrial uses.
- 20. Some sampling from Japan is reported in the risk profile document on hexabromocyclododecane that suggest an increased usage of this chemical since the 1990s and reports on its use in insulation boards and textiles in Japan.
- 21. Therefore the Committee confirms that the criterion in paragraph (c) (i) is met.
 - (ii) Whether the final regulatory action led to an actual reduction of risk or would be expected to result in a significant reduction of risk for human health or the environment of the Party that submitted the notification;
- 22. Citing the hazards posed by the substance to human health, the ban notified by Japan would be expected to lead to a significant reduction in risk by banning industrial uses and preventing new uses from being introduced into the country. The results of the internal evaluation of environmental risks showed that they would be significantly decreased upon banning hexabromocyclododecane. The notifying Party states that a reduction in human exposure is the expected effect of this regulatory action as the use of the substance is phased out.
- 23. The Committee confirms that the criterion in paragraph (c) (ii) is met.
 - (iii) Whether the considerations that led to the final regulatory action being taken are applicable only in a limited geographical area or in other limited circumstances;

³ UNEP/FAO/RC/CRC.13/INF/16.

- 24. Japan does not cite information in its notification regarding the applicability of the considerations leading to this regulatory action to other regions. However, the notifying Party provided the risk profile on hexabromocyclododecane prepared by the Persistent Organic Pollutants Review Committee, which indicates that global action is warranted as a result of its long-range environmental transport leading to significant adverse human health and environmental effects.
- 25. Given the hazards associated with, and long-range transport of, this substance as described in the risk profile of the Persistent Organic Pollutants Review Committee, any state or region where exposure or release is possible may find the regulatory action relevant.
- 26. Therefore the Committee confirms that the criterion in paragraph (c) (iii) is met.
 - (iv) Whether there is evidence of ongoing international trade in the chemical;
- 27. No information on the trade in hexabromocyclododecane appears in the information collected by the Secretariat. However, hexabromocyclododecane is listed to Annex A to the Stockholm Convention and Parties agreed as part of that listing to include specific exemptions for use and production. This suggests that the production and use of hexabromocyclododecane continues and that ongoing trade can be expected.
- 28. Therefore the Committee confirms that the criterion in paragraph (c) (iv) is met.

(e) Annex II paragraph (d) criterion

- (d) Take into account that intentional misuse is not in itself an adequate reason to list a chemical in Annex III.
- 29. There is no indication in the notification or supporting documentation that concerns over the intentional misuse of hexabromocyclododecane prompted the regulatory action.
- 30. Based on the above point the Committee confirms that the criterion in paragraph (d) of Annex II is met.

(f) Conclusion

31. The Committee concludes that this notification of final regulatory action by Japan meets the criteria set out in Annex II to the Convention.

II. Norway

(a) Scope of the regulatory action notified by Norway

32. The regulatory action notified by Norway relates to the industrial uses of hexabromocyclododecane (CAS 23637-99-4, 3194-55-6, 134237-50-6, 134237-51-7, 134237-52-8). The notification stated that the production, import, export and sale of consumer products containing hexabromocyclododecane were severely restricted. The substance is regulated by chapter 4 of the regulation related to restrictions on the manufacture, import and placing on the market of chemicals and other products hazardous to human health and the environment (Product Regulation) act no. 922 of June 2004, which represents the Norwegian implementation of Regulation (EC) No 850/2004 of the European Parliament and of the Council on persistent organic pollutants and the implementation of the amendment to Annex I, the Commission Regulation (EU) 2016/293 of 1 March 2016. The regulatory action came into force on July 9, 2016.

(b) Annex II paragraph (a) criterion

- (a) Confirm that the final regulatory action has been taken in order to protect human health or the environment:
- 33. The Committee confirms that the regulatory action was taken to protect human health and the environment. The notification cited exposures to consumers through consumer products, and to babies through human breast milk. The persistence and bioaccumulation of hexabromocyclododecane and its detection in various samples from Norway were cited as risks to the environment.
- 34. Hexabromocyclododecane had been used as a flame retardant in the production of expanded polystyrene and extruded polystyrene for onward use in building applications abroad, though this activity has not occurred in Norway itself.
- 35. The Committee confirms that the criterion in paragraph (a) of Annex II is met.

(c) Annex II paragraph (b) criteria

- (b) Establish that the final regulatory action has been taken as a consequence of a risk evaluation. This evaluation shall be based on a review of scientific data in the context of the conditions prevailing in the Party in question. For this purpose, the documentation provided shall demonstrate that:
 - (i) Data have been generated according to scientifically recognized methods;
 - (ii) Data reviews have been performed and documented according to generally recognized scientific principles and procedures;
- 36. The notification states that the final regulatory action was based on a risk or hazard evaluation. It references the European Commission Risk assessment for hexabromocyclododecane. The "conclusions and overall results" section of this report is provided by Norway among their supporting information. Also contained in the supporting information are studies and excerpts or English summaries of studies that are relevant to Norway or its geographical region, its citizens, species native to these areas, and alternatives to the substance for its flame retardant uses.
- 37. Documentation submitted by Norway included the toxicological and ecotoxicological properties, which are referenced as from the European Commission Risk assessment for hexabromocyclododecane. Hazard endpoints are provided in the Flame Retardant Alternatives For Hexabromocyclododecane Final Report (June 2014) by the United States Environmental Protection Agency.
- 38. The supporting documentation from Norway included a number of citations and technical reports, including monitoring studies conducted in Norway.
- 39. With respect to the European Commission risk assessment document, the risk assessment report is peer-reviewed by the Scientific Committee on Health and Environmental Risks, which gives its opinion to the European Commission on the quality of the risk assessment.
- 40. Materials, methods and references are contained in the reporting and publications provided as supporting information by Norway.
- 41. The United States Environmental Protection Agency report on alternatives to hexabromocyclododecane cites published scientific articles.
- 42. The Committee confirms that the criteria in paragraphs (b) (i) and (b) (ii) of Annex II are met.
 - (iii) The final regulatory action was based on a risk evaluation involving prevailing conditions within the Party taking the action;
- 43. The notification from Norway indicates that the regulatory action was based on a risk or hazard evaluation and that it was relevant to both human health and the environment. The notification specifically cites the European Commission risk assessment for hexabromocyclododecane. Summarized in the body of the notification from Norway is evidence of exposure to consumers in Norway, its detection in the environment (including remote areas of the arctic), biota, fish, moss, yolk sac of newly hatched chicks. Some temporal trends are noted.
- 44. Hazard endpoints are provided in the supporting information from Norway as part of the United States Environmental Protection Agency report on flame retardant alternatives. High or very high hazards are noted for developmental effects, acute aquatic toxicity, and chronic aquatic toxicity. Hexabromocyclododecane is highly persistent and has very high bioaccumulation.
- 45. Given these properties, the detection of hexabromocyclododecane (sometimes with increasing trends from temporal studies) in Norwegian environmental monitoring, ecological and human biomonitoring studies, the Committee concludes that the supporting information from Norway demonstrates an evaluation of the risk to its environment and citizens.
- 46. Consequently, the Committee confirms that the criterion in paragraph (b) (iii) of Annex II is met.
- 47. The Committee confirms that the criteria of paragraph (b) of Annex II are met.

(d) Annex II paragraph (c) criteria

- (c) Consider whether the final regulatory action provides a sufficiently broad basis to merit listing of the chemical in Annex III, by taking into account:
 - (i) Whether the final regulatory action led, or would be expected to lead, to a significant decrease in the quantity of the chemical used or the number of its uses;

- 48. The Norwegian notification provides quantities of hexabromocyclododecane that were imported and exported in 2012 and 2013, respectively. The notification cites industrial uses as a flame retardant in the production of formulations for expanded polystyrene and extruded polystyrene though the production of polystyrene has not taken place in Norway itself.
- 49. The regulatory action reported by Norway is a severe restriction on industrial uses that prohibit the manufacture, import, export, placing on the market and use of substances that contain 0.01 per cent by weight or more of hexabromocyclododecane. A time-limited exemption has been allowed for the use of hexabromocyclododecane in the production of expanded polystyrene articles and for the production and placing on the market of hexabromocyclododecane for such use.
- 50. Therefore the Committee confirms that the criterion in paragraph (c) (i) is met.
 - (ii) Whether the final regulatory action led to an actual reduction of risk or would be expected to result in a significant reduction of risk for human health or the environment of the Party that submitted the notification;
- 51. Citing the hazards posed by the substance to human health and the environment, the severe restriction notified by Norway with its time-limited exemptions would be expected to lead to a significant reduction in risk by limiting the allowable uses and preventing new uses from being introduced to their country.
- 52. The Committee confirms that the criterion in paragraph (c) (ii) is met.
 - (iii) Whether the considerations that led to the final regulatory action being taken are applicable only in a limited geographical area or in other limited circumstances;
- 53. Norway indicates that the Parties to the Stockholm Convention have agreed on the listing of hexabromocyclododecane in Annex A with some specific exemptions for production and use. Substances listed in Annex A of the Stockholm Convention are targeted for global elimination. As a persistent organic pollutant, hexabromocyclododecane has hazardous properties and is subject to longrange transport. Any state or region where exposure or release is possible may find the regulatory action relevant.
- 54. Therefore the Committee confirms that the criterion in paragraph (c) (iii) is met.
 - (iv) Whether there is evidence of ongoing international trade in the chemical;
- 55. Hexabromocyclododecane is listed to Annex A of the Stockholm Convention and Parties agreed as part of that listing to include specific exemptions for use and production. Norway's notification is for a severe restriction with certain, time-limited uses allowed. This suggests that production and use of hexabromocyclododecane continues, and ongoing trade can be expected.
- 56. Therefore the Committee confirms that the criterion in paragraph (c) (iv) is met.

(e) Annex II paragraph (d) criterion

- (d) Take into account that intentional misuse is not in itself an adequate reason to list a chemical in Annex III.
- 57. There is no indication in the notification or supporting documentation that concerns over the intentional misuse of hexabromocyclododecane prompted the regulatory action.
- 58. Based on the above point the Committee confirms that the criterion in paragraph (d) of Annex II is met.

(f) Conclusion

59. The Committee concludes that the notification of final regulatory action submitted by Norway meets the criteria set out in Annex II to the Convention.

III Conclusion

- 60. The Committee concluded that the notifications of final regulatory action submitted by Japan and Norway met the information requirements of Annex I and all the criteria set out in Annex II to the Convention.
- 61. The Committee also concludes that the final regulatory actions taken by Japan and Norway provide a sufficient basis to merit including hexabromocyclododecane in Annex III to the Convention in the industrial chemical category and that a decision guidance document should be drafted on the basis of the notifications.

CRC-13/3: Mirex

The Chemical Review Committee.

Recalling Article 5 of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade,

Having reviewed the notification of final regulatory action for mirex from Colombia and the new notification of final regulatory action for mirex submitted by Canada, replacing the previous notification from that Party,⁴

- 1. *Concludes* that the new notification of final regulatory action for mirex submitted by Canada meets the criteria set out in Annex II to the Convention;
- 2. *Adopts* the rationale for the Committee's conclusion on the notification for mirex submitted by Canada set out in the annex to the present decision;⁵
- 3. *Notes* that, as only one notification of final regulatory action in respect of mirex meets the criteria set out in Annex II to the Convention, it will take no further action on the chemical at present.

Annex to decision CRC-13/3

Rationale for the conclusion by the Chemical Review Committee that the notification of final regulatory action submitted by Canada in respect of mirex in the industrial category meets the criteria of Annex II to the Rotterdam Convention

- 1. The notification of final regulatory action for mirex in the industrial category submitted by Canada has been verified by the Secretariat as containing the information required by Annex I to the Rotterdam Convention. The notification and supporting documentation were made available to the Chemical Review Committee for its consideration (UNEP/FAO/RC/CRC.13/10, UNEP/FAO/RC/CRC.13/INF/22).
- 2. In reviewing the notification of final regulatory action by Canada, together with the supporting documentation provided by the Party, the Committee was able to confirm that the action had been taken in order to protect human health and the environment. Mirex is persistent and bioaccumulative (stored mainly in fat tissues) and it is subject to long-range transport. It has been demonstrated to cause cancer in experimental animals and it is possibly carcinogenic to humans. Mirex was never registered for use as an agricultural pesticide in Canada. The notified decision concerns industrial uses. It has mainly been used as a fire-retardant agent in plastics, rubber, paint, paper and electrical goods. It has also been used as a pyrotechnic for generating white smoke. Mirex contaminates several ecosystems in Canada. Human dietary exposure to mirex is generally low, with the possible exception of the group dependant on a diet of fish or fish-eating birds from Lake Ontario and the St. Lawrence River and of hunters eating game birds.
- 3. The Committee established that the final regulatory action had been taken on the basis of risk evaluation and that the evaluation had been based on a review of scientific data. The available documentation demonstrated that the data had been generated in accordance with scientifically recognized methods and that the data reviews had been performed and documented in accordance with generally recognized scientific principles and procedures. It also showed that the final regulatory action had been based on chemical-specific risk evaluations, taking into account the conditions of exposure within Canada. A task force had evaluated the risks in 1997. The main conclusions were:
 - (a) Mirex contaminates several ecosystems in Canada;
 - (b) Mirex is not known to occur in the environment as a natural product;
- (c) The main sources of mirex in Canada are located in New York State, United States, in the Niagara River and the Oswego River where chemical manufacturing and fire retardant plants were located;

⁴ See UNEP/FAO/RC/CRC.13/10.

⁵ The rationale annexed to the present decision replaces the rationale developed by the Committee at its second meeting (UNEP/FAO/RC/CRC.2/20, annex III, sect. D).

- (d) The transboundary movement of mirex in the Lake Ontario ecosystem has resulted in the contamination of fish and fish feeding birds in Canada;
- (e) Human dietary exposure to mirex is generally very low in Canada with the possible exception of a critical subpopulation partly or wholly dependent on a diet of fish or fish-feeding birds from Lake Ontario and the St. Lawrence River;
- (f) Mirex is biologically active, accumulates in food chains, is extremely persistent and dispersed in the environment.
- 4. The Committee concluded that the final regulatory action provided a sufficiently broad basis to merit including mirex in Annex III to the Rotterdam Convention in the industrial category. It noted that the action had led to a decrease in the quantities of the chemicals used in the notifying Party. The chemical has not been registered or used as an insecticide in Canada and had never been produced in the country. By the notified decision, all other uses had been banned. Over the period 1963–1973, about 146 metric tonnes had been imported to Canada for industrial uses. The Stockholm Convention, to which Canada is a Party, prohibits both the production and use of mirex. Accordingly, the risk for human health or environment in the notifying Party had been significantly reduced.
- 5. The Committee took into account that the considerations underlying the final regulatory action were not of limited applicability since mirex was subject to long-range transport and persistent; therefore also found in monitoring in areas where it had never been used. Although there is no information on the ongoing trade of the chemical available to the Committee, it cannot be excluded that international trade takes place.
- 6. The Committee noted that the final regulatory action had not been based on concerns over the intentional misuse of mirex.
- 7. At its thirteenth meeting, the Committee concluded that the notification of final regulatory action by Canada met the information requirements of Annex I and the criteria set out in Annex II to the Convention. When a second notification for the same chemical from a Party in a region other than North America will be found by the Committee to meet the criteria of Annex II, the Committee will recommend to the Conference of the Parties that mirex should be included in Annex III to the Rotterdam Convention.

CRC-13/4: Phorate

The Chemical Review Committee,

Recalling Article 5 of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade,

Recalling also the conclusion by the Chemical Review Committee, adopted at its fifth meeting, that the notification of final regulatory action for phorate submitted by Canada met the criteria set out in Annex II to the Convention,⁶

- 1. *Concludes* that the notification of final regulatory action for phorate submitted by Brazil⁷ meets the criteria set out in Annex II to the Convention;
- 2. *Adopts* the rationale for the Committee's conclusion set out in the annex to the present decision;
- 3. *Recommends*, in accordance with paragraph 6 of Article 5 of the Convention, that the Conference of the Parties should list phorate in Annex III to the Convention as a pesticide;
- 4. *Decides*, in accordance with paragraph 1 of Article 7 of the Convention, to prepare a draft decision guidance document for phorate;
- 5. Also decides, in accordance with the process for drafting decision guidance documents set out in decision RC-2/2 and amended by decision RC-6/3, that the composition of the intersessional drafting group to prepare the draft decision guidance document for phorate and the workplan of the group shall be as set out in annexes II and III, respectively, to the report of the Committee on the work of its thirteenth meeting.

⁶ UNEP/FAO/RC/CRC.5/16, annex III, section B.

⁷ See UNEP/FAO/RC/CRC.13/13.

Annex to decision CRC-13/4

Rationale for the conclusion by the Chemical Review Committee that the notification of final regulatory action submitted by Brazil in respect of phorate in the pesticide category meets the criteria of Annex II to the Rotterdam Convention

- 1. In reviewing the notifications of final regulatory action by Brazil to ban the use of phorate as a pesticide, together with the supporting documentation provided by the Party, the Committee confirmed that the action had been taken to protect human health. The notification was found to meet the information requirements of Annex I and the criteria set forth in Annex II to the Rotterdam Convention.
- 2. The notification and supporting documentation were made available to the Chemical Review Committee for its consideration (UNEP/FAO/RC/CRC.13/13, UNEP/FAO/RC/CRC.13/INF/29).
- 3. In reviewing the notification of final regulatory action by Brazil, together with the supporting documentation provided by the Party, the Committee was able to confirm that the action had been taken in order to protect human health.

(a) Scope of the notified regulatory action

- 4. The notified regulatory action relates to phorate (CAS No. 298-02-2) used as a pesticide.
- 5. As a result of the toxicological re-evaluation of the active ingredient phorate, on 13 March 2015 the National Health Surveillance Agency (ANVISA) issued Resolution RDC No. 12. Pursuant to that resolution, all technical and formulated products based on the active ingredient phorate are prohibited. Consequently, the production, use, trade, import and export of phorate are banned.
- 6. Prior to the final regulatory action, the use of phorate was allowed in Brazil as an insecticide authorized exclusively for agricultural use.
- 7. The notification was found to meet the information requirements of Annex I.

(b) Annex II paragraph (a) criterion

- (a) Confirm that the final regulatory action has been taken in order to protect human health or the environment;
- 8. As stated in the notification, the final regulatory action taken by Brazil in relation to phorate prohibited all technical and formulated products based on the active ingredient phorate and banned the production, use, trade, import and export of the active substance (sects. 2.2.1 and 2.3.3 of the notification). Prior to the adoption of the final regulatory action, phorate had been used in Brazil as an insecticide authorized exclusively for agricultural use for the following crops: cotton, potato, coffee, beans and corn (UNEP/FAO/RC/CRC.13/13, annex, sect. 2.3.1).
- 9. The final regulatory action, as the notification states, has been taken for the pesticide category (UNEP/FAO/RC/CRC.13/13, annex, sect. 2.3.2) to protect human health (UNEP/FAO/RC/CRC.13/13, annex, sect. 2.4.2.1).
- 10. Brazil has undertaken, as part of its toxicological re-evaluation of the active ingredient, an extensive review of relevant data on the hazards and risks associated with phorate using reviewed documents, published reports and literature.
- 11. On the basis of the available data, phorate and its metabolites were identified to be easily absorbed through skin and mucous membranes and to irreversibly block the catalytic activity of acetylcholinesterase (AChE), the enzyme responsible for mediating the hydrolysis of acetylcholine in acetic acid and choline acid. Thus, they interrupt the transmission of nerve impulses in the cholinergic synapses of the central nervous system (CNS), autonomic nervous system (ANS) and neuromuscular junction. Inactivation of AChE causes cholinergic hyperstimulation by acetylcholine accumulation in the synaptic cleft.
- 12. Phorate is considered one of the most toxic organophosphate AChE inhibitors, with mean oral LD50 for mice ranging from 1.4 to 10 mg/kg body weight (UNEP/FAO/RC/CRC.13/13, annex, sect. 2.4.2.1). The experimental and epidemiological studies involving the respiratory tract demonstrate that phorate has high toxicity for this system (UNEP/FAO/RC/CRC.13/INF/29, p. 21).

- 13. Data confirm that phorate can cause complex neurological clinical manifestations in humans, such as encephalopathy, intermediate syndrome and delayed polyneuropathy, described by various authors (Young, Jung, Ayer, 1979; Kashyap et al., 1984; WHO/FAO, 1988; Kusic et al., 1991; Dobozy, 1998; Das and Jena, 2000; Thanal, 2001; Jayakumar, 2002; Mission, 2006; Peter, Prabhakar, Pichamuthu, 2008a; 2008b). However, in laboratory animals that received phorate, there were no cases of intermediate syndrome or late polyneuropathy, which shows this pesticide as more toxic to humans than is demonstrated in tests with laboratory animals.
- 14. Besides its neurotoxic effects, phorate was found to demonstrate the potential to cause adverse effects to the endocrine regulation processes of steroid hormones in humans (Usmani, 2003), which may contribute to increased cancer cases (Alavanja, et al., 2002; Mahajan et al., 2006; Koutros et al., 2010) (UNEP/FAO/RC/CRC.13/13, annex, sect. 2.4.2.1; UNEP/FAO/RC/CRC.13/INF/29).
- 15. Several studies, analysed by Brazil, also showed that agricultural workers exposed to phorate have been the victims of poisonings and deaths related to the toxicity characteristics of the active ingredient. The exposure becomes even more dangerous due to the difficulties related to the lack of availability and/or inefficiency of personal protective equipment (UNEP/FAO/RC/CRC.13/13, annex, sect. 2.4.2.1; UNEP/FAO/RC/CRC.13/INF/29, p.21).
- 16. From the Brazilian perspective, there is a comprehensive study on the conditions of pesticide use carried out by Waichman (2008) in Brazilian municipalities of the state of Amazonas (Manaus, Iranduba, Careiro da Várzea and Manacapuru). It concluded that farmers were not prepared for the proper use of pesticides, ignoring the risks of these products to human health and the environment. Personal protective equipment is not used because it is expensive, uncomfortable and unsuitable for the hot climate of the region. Lack of training and poor knowledge of the hazards of pesticides are contributing to incorrect handling during the preparation, application and disposal of empty containers. In these conditions the exposure of farmers, their families, consumers and the environment is high.
- 17. The Committee noted that "Brazilian law predicts that pesticides may have their registrations cancelled in the country when they fall under the following conditions related to human health: when they have no antidote or effective treatment in Brazil; if found teratogenic, mutagenic or carcinogenic; if they cause hormonal disturbances and damage to the reproductive system or if they are more dangerous to humans than demonstrated in tests with laboratory animals" (UNEP/FAO/RC/CRC.13/13, annex, sect. 2.4.2.1).
- 18. The toxicological re-evaluation undertaken by Brazil led to the conclusion that, considering all the toxicological effects associated with the active ingredient phorate and its characteristics, it was found to be more toxic to humans than animals. The use of the active ingredient phorate thus must be prohibited in Brazil, in order to protect the health of exposed workers, consumers and the general population (UNEP/FAO/RC/CRC.13/13, annex, sect. 2.4.2.1).
- 19. After analysis of the notification of the final regulatory action (UNEP/FAO/RC/CRC.13/13, annex, sect. 2.4.2) and the supporting documentation provided by Brazil (UNEP/FAO/RC/CRC.13/INF/29), the Committee confirms that the regulatory action was taken to protect human health.
- 20. Therefore the Committee confirms that the criterion in paragraph (a) is met.

(c) Annex II paragraph (b) criteria

- (b) Establish that the final regulatory action has been taken as a consequence of a risk evaluation. This evaluation shall be based on a review of scientific data in the context of the conditions prevailing in the Party in question. For this purpose, the documentation provided shall demonstrate that:
 - (i) Data have been generated according to scientifically recognized methods;
 - (ii) Data reviews have been performed and documented according to generally recognized scientific principles and procedures;
- 21. In January 2012, ANVISA, together with experts from Oswaldo Cruz Foundation (FIOCRUZ), prepared a technical note on the toxicological re-evaluation of the active ingredient phorate (UNEP/FAO/RC/CRC.13/INF/29, p.27), representing an extensive review of relevant data on the hazards and risks associated with phorate using reviewed documents, published reports and literature, including reports from international agencies or institutes, such as the United States EPA and the International Programme on Chemical Safety (IPCS), as well as the studies submitted to the Brazilian Health Surveillance Agency (ANVISA) in the toxicological dossier to support the registration of technical and formulated products. The key studies submitted to ANVISA in the toxicological dossier

are related to acute, sub-chronic and chronic toxicity (22 studies), carcinogenicity and genotoxicity (9 studies), endocrine system and reproductive toxicity (2 studies) and embryophetal development (5 studies) (UNEP/FAO/RC/CRC.13/INF/29, p.20).

- 22. After analysing the notification and supporting documentation, the Committee concludes that the data referred to and provided in those documents have been generated according to scientifically recognized methods and the reviews have been performed and documented according to generally recognized scientific principles and procedures.
- 23. Consequently, the Committee confirms that the criteria in paragraph (b) (i) and (ii) are met.
 - (iii) The final regulatory action was based on a risk evaluation involving prevailing conditions within the Party taking the action;
- 24. The notification, in its section 2.4, states that the final regulatory action was based on a risk or hazard evaluation. In accordance with Brazilian Pesticide Law one or more of the governmental agencies responsible for the pesticides registration (IBAMA, ANVISA or MAPA) can re-evaluate the registration of a pesticide when there is evidence of reduction of agronomic efficiency and/or change of risks to human health or the environment. In order to carry out such a re-evaluation a technical committee is established. The committee develops technical notes on the toxicology and/or potential environmental hazards of the active ingredient in addition to an economic analysis of pesticide substitutes, based on data collected from studies and surveys conducted by national and international accredited institutions as well as information provided by National System of Toxic-Pharmacological Intoxications and Poisonings (SINITOX), Pesticide Residues in Food Analysis Programme or pesticide holder companies.
- 25. The technical notes in the re-evaluation process assess the potential exposures, the hazard, in accordance with parameters and methodologies adopted internationally, especially by the World Health Organization (WHO); the Food and Agriculture Organization (FAO); Organisation for Economic Co-operation and Development (OECD); the United States EPA and the European Union. After the re-evaluation, measures to restrict, suspend or prohibit the production and import of pesticides could be taken as well as the cancellation of the registration, if a criterion of prohibition of registration is fulfilled (UNEP/FAO/RC/CRC.13/INF/29).
- 26. Brazil's risk evaluation of phorate took into account toxicology and public health; occupational health and safety, environmental impact and availability of lower-risk alternatives (UNEP/FAO/RC/CRC.13/INF/29). An extensive review of relevant data on the hazards and risks associated with phorate using reviewed documents, published reports and literature was undertaken.
- 27. The re-evaluation took into account, among other things, a comprehensive Brazilian study carried out by Waichman (2008) on the conditions of pesticide use in municipalities of the state of Amazonas (Manaus, Iranduba, Careiro da Várzea and Manacapuru). The study concluded that farmers were not prepared for the proper use of pesticides, ignoring the risks of these products to human health and the environment. Personal protective equipment was not used because it was expensive, uncomfortable and unsuitable for the hot climate of the region. Lack of training and poor knowledge of the hazards of pesticides were contributing to incorrect handling during the preparation, application and disposal of empty containers. In these conditions the exposure of farmers, their families, consumers and the environment was high. To summarize, comprehensive information is available on the prevailing conditions of use of pesticides in Brazil; and Brazil used this information in its risk evaluation.
- 28. The Committee noted that in its notification Brazil underlined that the final regulatory action was, among other things, based on the observation of the higher toxicity of phorate to humans than animals, that the substance is an endocrine-disrupting chemical and that it "fulfilled criteria which are prohibitive for registration for pesticide in Brazil."
- 29. Furthermore, the second paragraph of section III, 1 (b) of "2.5 Working paper on the application of criteria (b) (iii) of Annex II" of the Handbook of Working Procedures and Policy Guidance for the Chemical Review Committee states: "for acutely toxic pesticides or industrial chemicals, the description of the prevailing conditions in the notifying country could include information on the availability and common use of protective equipment or poisoning scenarios (if relevant and available)".
- 30. Considering that phorate is an acutely toxic pesticide, the results of the study on common practices in the use of pesticides in Brazil which highlighted problems associated with the use of personal protective equipment, as well as the human intoxication incidents in India, the Committee is

of the opinion that the prevailing conditions in Brazil were taken into account in the risk evaluation performed by Brazil.

- 31. Consequently, the Committee confirms that the criterion in paragraph (b) (iii) is met.
- 32. The Committee confirms that the criteria in paragraph (b) are met.

(d) Annex II paragraph (c) criteria

- (c) Consider whether the final regulatory action provides a sufficiently broad basis to merit listing of the chemical in Annex III, by taking into account:
 - (i) Whether the final regulatory action led, or would be expected to lead, to a significant decrease in the quantity of the chemical used or the number of its uses;
- 33. On the basis of the data presented in section 2.5.1 of the notification and in supporting documentation (UNEP/FAO/RC/CRC.13/INF/29, p. 22), the production, import and export of phorate has ceased in Brazil, as illustrated by the table below.
- 34. The final regulatory action taken by Brazil in 2015 would prevent any further production, import, export and use.

	Quantity per year (metric tonnes)	Year
Produced	Formulated product (final product): 153,9 t	2009
Imported	Active ingredient : 17,15 t	2009
Exported	Active ingredient : 35,96 t	2011
Used	Active ingredient sales : 26,49 t	2009
	Formulated product (final product) sales: 272,58 t	2009
	Formulated product (final product) sales: 6,72 t	2010
	Formulated product (final product) sales: 0,01 t	2011
	No production, import, export and sales.	2012, 2013, 2014, 2015

- 35. Therefore the Committee confirms that the criterion in paragraph (c) (i) is met.
 - (ii) Whether the final regulatory action led to an actual reduction of risk or would be expected to result in a significant reduction of risk for human health or the environment of the Party that submitted the notification;
- 36. The final regulatory action bans the production, use, trade, import and export of phorate. Information presented in section 2.5.1 of the notification and in the supporting documentation confirms the decrease of phorate produced and placed on the market in Brazil to zero. Accordingly, the risks to human health resulting from phorate decreased significantly.
- 37. Therefore the Committee confirms that the criterion in paragraph (c) (ii) is met.
 - (iii) Whether the considerations that led to the final regulatory action being taken are applicable only in a limited geographical area or in other limited circumstances;
- 38. Section 2.5.2 of the notification states that similar health and environmental problems are likely to be encountered in other countries where the substance is used.
- 39. In the supporting documentation (UNEP/FAO/RC/CRC.13/INF/29, p. 22), it is stated that restriction of the use of phorate should be considered by all States because of the high risk associated with all uses and considering all the toxicological effects associated with the active ingredient, especially for "having characteristics more toxic to humans than laboratory animal tests have been able to demonstrate"; the potential for causing endocrine disruption and the absence of antidote or effective treatment in cases of late polyneuropathy.
- 40. The considerations that led Brazil to ban the production, use, sale, export and import of phorate can be adequate for all States where that active ingredient is still used as a pesticide.
- 41. Therefore the Committee confirms that the criterion in paragraph (c) (iv) is met.
 - (iv) Whether there is evidence of ongoing international trade in the chemical;

- 42. In document UNEP/FAO/RC/CRC.13/INF/5, which contains responses to a request made by the Secretariat in accordance with paragraph (c) (iv) of Annex II to the Convention regarding trade, information from CropLife International confirms the ongoing trade of phorate.
- 43. Ongoing trade can be also confirmed by the presence of online offers of phorate for sale (https://www.tradeindia.com/suppliers/phorate.html).
- 44. Therefore the Committee confirms that the criterion in paragraph (c) (iv) is met.

(e) Annex II paragraph (d) criterion

- (d) Take into account that intentional misuse is not in itself an adequate reason to list a chemical in Annex III.
- 45. There is no indication in the notification or supporting documentation that concerns over the intentional misuse of phorate prompted the regulatory action.
- 46. Based on the above point the Committee confirms that the criterion in paragraph (d) is met.

(f) Conclusion

47. Therefore the Committee concludes that the notification of final regulatory action for phorate in the pesticide category submitted by Brazil meets all the criteria set out in Annex II to the Convention. Taking into account the conclusion by the Committee that the notification of final regulatory action for phorate submitted by Canada also met the criteria in Annex II,⁸ the Committee concludes that the final regulatory actions taken by Brazil and Canada provide a sufficient basis to merit including phorate in Annex III to the Convention in the pesticide category and that a decision guidance document should be drafted on the basis of the notifications.

⁸ UNEP/FAO/RC/CRC.5/16, annex III, section B.

Annex II

Composition of intersessional drafting groups (2017–2018)

Drafting group on acetochlor

Chair: Ms. Parvoleta Angelova Luleva (Bulgaria)

Vice-Chair: Ms. Leonarda Christina van Leeuwen (Netherlands)

Members: Mr. Malverne Spencer (Antigua and Barbuda)

Mr. Peter Ayuk Enoh (Cameroon)

Ms. Jinye Sun (China)

Mr. Ahmed Houssein Bouh (Djibouti) Ms. Elsa Ferreras (Dominican Republic)

Mr. Ram Bharosey Lal (India) Mr. Arsonina Bera (Madagascar) Mr. Mohd Fauzan Yunus (Malaysia) Ms. Alimatou Abdou Douki (Niger)

Mr. Jürgen Helbig (Spain) Mr. Nadjo N'Ladon (Togo)

Drafting group on hexabromocyclododecane

Chair: Mr. Jeffery R. Goodman (Canada) Vice-Chair: Mr. Arsonina Bera (Madagascar)

Members: Ms. Anahit Aleksandryan (Armenia)

Mr. Jack Holland (Australia)

Ms. Jinye Sun (China)

Ms. Elsa Ferreras (Dominican Republic)

Mr. Ram Bharosey Lal (India) Ms. Amal Lemsioui (Morocco)

Ms. Leonarda Christina van Leeuwen (Netherlands)

Ms. Tatiana Tugui (Republic of Moldova)

Mr. Juergen Helbig (Spain)

Ms. Johanna Peltola-Thies (United Kingdom of Great Britain and Northern Ireland)

Drafting group on phorate

Chair: Ms. Johanna Peltola-Thies (United Kingdom)

Vice-Chair: Mr. Jack Holland (Australia)

Members: Mr. Jeffery R. Goodman (Canada)

Ms. Elsa Ferreras (Dominican Republic)

Mr. Ram Bharosey Lal (India) Mr. Arsonina Bera (Madagascar)

Ms. Leonarda Christina van Leeuwen (Netherlands)

Ms. Magdalena Frydrych (Poland)

Ms. Tatiana Tugui (Republic of Moldova) Ms. Champa Magamage (Sri Lanka)

Mr. Juergen Helbig (Spain)

Ms. Nuansri Tayaputch (Thailand)

Mr. Viliami Manu (Tonga)

Annex III

Workplan for the preparation of draft decision guidance documents

Tasks to be carried out	Responsible persons	Deadlines
Draft an internal proposal based on the information	Chair	15 December 2017
available to the Committee	Vice-Chair	
Send the draft internal proposal to the drafting group	Chair	15 December 2017
members for comments via e-mail	Vice-Chair	
Replies	Drafting group members	19 January 2018
Update the internal proposal based on comments from	Chair	20 February 2018
drafting group members	Vice-Chair	
Send the updated internal proposal to the Committee	Chair	20 February 2018
members and observers for comments via e-mail	Vice-Chair	
Replies	Committee members and	30 March 2018
	observers	
Draft a decision guidance document based on the	Chair	27 April 2018
comments of the Committee members and observers	Vice-Chair	
Send the draft decision guidance document to the	Chair	27 April 2018
drafting group members for comments via e-mail	Vice-Chair	
Replies	Drafting group members	9 May 2018
Finalize the draft decision guidance document based on	Chair	30 May 2018
the comments of the drafting group members	Vice-Chair	
Send the draft decision guidance document to the	Chair	30 May 2018
Secretariat	Vice-Chair	
Submit the draft decision guidance document to the Committee at its fourteenth meeting		September 2018

53

UNITED NATIONS

MC

UNEP/MC/COP.1/29



Distr.: General 22 November 2017 Original: English



United Nations Environment Programme

Conference of the Parties to the Minamata Convention on Mercury First meeting Geneva, 24–29 September 2017

Report of the Conference of the Parties to the Minamata Convention on Mercury on the work of its first meeting

Introduction

- 1. In section III of its decision 25/5, the Governing Council of the United Nations Environment Programme (UNEP) requested the Executive Director of UNEP to convene an intergovernmental negotiating committee to prepare a global legally binding instrument on mercury. In keeping with its mandate, at its fifth session, in January 2013, the committee agreed on the text of the Minamata Convention on Mercury for adoption by a conference of plenipotentiaries. Subsequently, the Conference of Plenipotentiaries on the Minamata Convention adopted the text of the Convention at Kumamoto, Japan, on 10 October 2013 (UNEP(DTIE)/Hg/CONF/4, annex II), and the Convention was opened for signature thereafter.
- 2. Article 31 of the Minamata Convention provides that the Convention is to enter into force on the ninetieth day after the date of deposit of the fiftieth instrument of ratification, acceptance, approval or accession. That milestone was reached on 18 May 2017, thereby triggering the entry into force of the Convention on 16 August 2017. Article 23 of the Minamata Convention provides that the first meeting of the Conference of the Parties shall be convened by the Executive Director of UNEP no later than one year after the date of entry into force of the Convention. Accordingly, the first meeting of the Conference of the Parties to the Minamata Convention was held at the Centre International de Conférences Genève, Geneva, from 24 to 29 September 2017.

I. Opening of the meeting (agenda item 1)

3. The meeting was opened at 3.15 p.m. on Sunday, 24 September 2017, by Mr. Jacob Duer, Principal Coordinator of the interim secretariat of the Minamata Convention on Mercury.

A. Opening statements

- 4. Opening statements were delivered by Mr. Marc Chardonnens, State Secretary, Swiss Federal Office for the Environment, and Mr. Ibrahim Thiaw, Deputy Executive Director of UNEP.
- 5. In his opening remarks, Mr. Chardonnens welcomed the participants on behalf of the Government of Switzerland, emphasizing that the current meeting represented the culmination of many years of preparation. Emissions and releases of mercury had affected many people worldwide, sometimes with catastrophic, long-term consequences, necessitating an urgent change in industrial processes and the identification of alternatives to mercury. He encouraged countries to ensure the effective implementation of the Minamata Convention on Mercury at the national level, and expressed the hope that the fruitful negotiations that had already taken place would make it possible to set ambitious goals during the course of the current meeting.

- 6. He further said that a number of actors, including the International Labour Organization and the World Health Organization, were working to reduce the use of mercury under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants. Mr. Chardonnens noted that at the 2017 meetings of the conferences of the parties to the Basel, Rotterdam and Stockholm conventions, parties had stressed the value of creating synergies and the need to establish a permanent secretariat for the Minamata Convention. The proposed integration of the interim secretariat of the Minamata Convention into the secretariat of the Basel, Rotterdam and Stockholm conventions would be an important item on the agenda of the meeting. He expressed his appreciation to the interim secretariat for its work and to the participants for their commitment to making mercury history, for the sake of the planet and the health of future generations.
- 7. In his statement, Mr. Thiaw said that he wanted to offer his voice to speak on behalf of the many and diverse people around the world who had suffered as a result of exposure to mercury. Citing examples of such individuals, he noted that the World Health Organization rated mercury as one of the top ten chemicals of major health concern. The Convention was important, he said, both because it was the first global environmental health agreement elaborated in nearly a decade and because it could serve as an essential building block of the 2030 Agenda for Sustainable Development.
- 8. There were three main issues to be tackled. First, too few people were aware that mercury could be found in anything from mascara and dental amalgam to small-scale artisanal gold mining and coal-fired power generation processes. Second, too few nations were equipped to deal with the deadly indestructible element that could seep into air, land, water and the food chain. Third, although bringing mercury under control could create many opportunities for sustainable development, too many such opportunities were currently being missed, along with potential means of addressing security, climate change, and social and economic development.
- 9. The Conference of the Parties, he said, could turn the situation around by addressing those issues. Awareness and action, for instance, could be scaled up, but countries needed to have the finances, resources and technology to track, collect and handle mercury. He drew the parties' attention to a new UNEP report, the *Global Mercury Waste Assessment*, which assessed mercury waste management in 30 countries, noting that mercury was still used in too many basic household or commercial items that were regularly thrown away. Waste management itself remained a fundamental issue in many countries, and not only developing countries. Ninety per cent of electronic goods containing mercury were illegally dumped, currently representing 50 million tons of waste a year a figure that was rapidly increasing. Dumped electronic waste also harboured opportunity, he said, being worth over \$50 million a year, and containing, among other things, some 300 tons of gold, or about 11 per cent of current global production. Consequently, mobilizing the private sector to take advantage of that opportunity offered huge potential to protect human health, create more sustainable jobs and recover valuable materials.
- 10. Artisanal and small-scale gold mining and coal-fired power production were two major sources of mercury exposure where, again, opportunities could be seized to reduce exposure as part of a larger sustainable development effort. Switching to renewable energy and smarter chemicals was a significant means of cutting pollution, creating jobs and stimulating economic growth as well as curbing climate change. Highlighting that every State on Earth had signed or ratified the Convention on the Rights of the Child, which obliged those States to take account of the health risks from contaminated food, water and pollution, that the Universal Declaration of Human Rights asserted peoples' right to share in scientific advancement and its benefits, and that some 150 national constitutions included provisions on environmental protection and over 100 countries guaranteed their citizens the right to a healthy environment, Mr. Thiaw urged parties to seize the chance to help all States to meet their commitments, and to rapidly translate the Minamata Convention into tangible action.

B. Regional and individual statements

- 11. Representatives speaking on behalf of groups of countries and individual countries made general statements on the issues to be discussed during the meeting.
- 12. The representative speaking on behalf of Latin American and Caribbean States said that the effective implementation of the Minamata Convention was critical to achieving the global goal of reducing environmental levels of mercury and thereby protecting human health and the environment. Such implementation, he said, would require that parties receive adequate, predictable and timely financial and technical support, so it was urgent that the Conference of the Parties finalize at the current meeting the two separate and complementary parts of the Convention's financial mechanism,

namely, the Global Environment Facility (GEF) trust fund and the specific international programme to support capacity-building and technical assistance, and that both the guidance to GEF and the hosting arrangements for the specific international programme be agreed and adopted. GEF had made a significant contribution to the Minamata Convention during its sixth replenishment process, and the region would welcome additional contributions to the Convention in the next replenishment process. As for the specific international programme, it was crucial that it be sufficiently robust to enable regular pledging of funds. In that regard, his regional group had submitted a conference room paper on the programme for consideration at the current meeting and would also present a conference room paper containing a decision on the Basel and Stockholm conventions' regional and subregional centres for capacity-building, technical assistance and technology transfer, which had played a critical role in providing support to countries in the region to facilitate the implementation of the Minamata Convention.

- 13. Turning to other items on the agenda, he encouraged the Conference of the Parties to work in a constructive spirit to finalize its work and to focus on those issues that had not been previously discussed or agreed by the intergovernmental negotiating committee. The Latin American and Caribbean region attached great importance to safeguarding populations, and vulnerable groups in particular, from mercury exposure, and was therefore appreciative of the collaboration between the interim secretariat and the World Health Organization on health-related issues, including the development of a public health strategy for artisanal and small-scale gold mining. It welcomed the continued collaboration among relevant organizations on health issues and on challenges such as the remediation of contaminated sites, the elimination of mercury use in artisanal and small-scale gold mining, and the elimination of primary mercury mining.
- The representative speaking on behalf of African States said that most of the current parties to 14. the Minamata Convention were from the African region, which supported annual reporting on mercury production and trade but had found the management, tracking and monitoring of mercury to be extremely challenging. African States had identified mercury emissions and releases from coal-fired power stations, open waste burning, contaminated sites, artisanal and small-scale gold mining activities and mercury in products and in waste as priority concerns for the region, and lessons learned from the Stockholm Convention showed that adequate and sustainable resources would be needed to ensure the effective implementation of the Minamata Convention. With regard to the offer made by Switzerland to host the permanent secretariat of the Minamata Convention, African States supported the proposal to host the secretariat in Geneva within the secretariat of the Basel, Rotterdam and Stockholm conventions and to create a new dedicated branch for the Minamata Convention in order to facilitate the implementation of the Convention. African States also supported a transparent and accountable structure for the specific international programme through which adequate, sustainable, easily accessible and timely means of implementation would be provided to parties under the Convention in order to support, among other things, capacity-building, technical assistance, the promotion of innovative solutions, technology transfer, and the introduction of affordable, effective and environmentally benign alternatives to mercury.
- 15. The representative speaking on behalf of the European Union and its member States said that the current meeting represented an important milestone in, and a first step towards, achieving the goal of eliminating the hazardous effects of mercury by gradually phasing out the substance. He said that the Conference of the Parties must lay a strong foundation to set the Convention on the right path by creating an enabling environment for parties to deliver on the Convention's goals and determine the Convention's strategic focus for years to come. Stating that the European Union and its member States welcomed the excellent work of the intergovernmental negotiating committee in preparing and provisionally adopting several documents pending formal adoption by the Conference of the Parties at its first meeting, he expressed support for the adoption of all such documents by the Conference of the Parties before substantive work began on the other issues on the agenda.
- 16. The representative speaking on behalf of Central and Eastern European States said that the current meeting represented a landmark event in eliminating the risks that mercury posed to the environment and human health by gradually phasing out mercury and mercury compounds, thereby ensuring a safe and healthy environment for all, and that it was important that the Conference of the Parties lay a strong foundation for the success of the Minamata Convention.
- 17. The representative speaking on behalf of Asian and Pacific States said that the largest portion of the world's mercury consumption and emissions occurred in the Asia-Pacific region, but the situation of different countries varied significantly and this made the implementation of the Minamata Convention in the region both challenging and complex. Some of the region's major challenges included the use of mercury in artisanal and small-scale gold mining, especially in poor communities where few alternatives existed, the transformation of mercury-based manufacturing processes and

sectors, and mercury-added products such as lamps and batteries, of which the region was a manufacturing hub, into mercury-free processes and products, that would require massive investment and international assistance in line with articles 13 and 14 of the Convention. A lack of information on mercury-related risks and high-risk populations in small-island developing States, the need to ensure the environmentally sound management of mercury waste across the region, and the need for technical assistance and resources to promote alternatives to mercury were other important regional challenges that needed to be addressed. Emphasizing the importance of the principle of common but differentiated responsibilities enshrined in the Convention's preamble, he said that the specific international programme must be made operational as soon as possible and effective means and tools must be developed at the current meeting to support both parties and non-parties that were in the process of ratifying the Convention. In closing, he said that the current meeting should be inclusive, enabling the views and interests of both parties and non-parties to be considered and the Convention to be moved into the implementation phase.

- 18. Following the regional statements above, statements were made by representatives of individual countries.
- 19. There was consensus among the speakers of the historic nature of the current meeting, which marked a milestone in the sustainable management of mercury and in protecting human health and the environment from the effects of mercury emissions and releases. Several representatives expressed their country's commitment to putting in place measures and activities that would help to achieve the objectives of the Minamata Convention. Artisanal and small-scale gold mining was identified as a particularly challenging area, with the potential to bring income to poor communities but at the same time presenting significant health and environmental problems.
- 20. A number of representatives outlined action being taken in their own countries to combat the negative impacts of mercury and to implement the Minamata Convention, which included the completion of Minamata Convention initial assessments and the development of national plans and strategies and procedures to reduce and eliminate mercury emissions and releases.
- 21. Some representatives said that it was important to strengthen international cooperation at all levels for the effective implementation of the Convention, including through synergies with the Basel, Rotterdam and Stockholm conventions, although one representative said that such synergies should not compromise the independence and integrity of the Minamata Convention. He also highlighted the need for an institutional structure, including an efficient, professional secretariat, that was suitable to meet the goals and provisions of the Convention.
- 22. Several representatives noted the need to provide developing countries with adequate and predictable support for implementation activities, including in the areas of financial and technical assistance, capacity-building, and the introduction of alternative, environmentally friendly technologies. One representative stressed the importance of applying the principle of common but differentiated responsibilities, taking into account that the environment was a common good that countries needed to protect according to their levels of responsibility and their relative capacities.
- 23. Following the country statements, additional statements were made by other speakers.
- 24. Ms. Shinobu Sakamoto, speaking on behalf of the International POPs Elimination Network and Zero Mercury Working Group, said that she had been exposed to mercury in her mother's womb and had been born with foetal Minamata disease, a neurological syndrome that still affected many people. She urged participants to continue their efforts to protect women and children from the impacts of mercury poisoning.
- 25. The representative of the World Alliance for Mercury-Free Dentistry praised the efforts of many countries and regional groupings to phase out the use of dental amalgam containing mercury, especially for children, pregnant women and breastfeeding women. Dental amalgam was often a black-market source of mercury used in artisanal and small-scale gold mining, in which case phasing out dental amalgam would result in a twofold gain. Ending the use of dental amalgam in children was a key phase-down step. Atraumatic restorative treatment using mercury-free alternatives had been found by the World Health Organization to offer a viable and effective procedure for use in milk teeth.
- 26. The representative of the secretariat of the Basel, Rotterdam and Stockholm conventions said that the achievements of the recent meetings of the conferences of the parties to those conventions, held in Geneva from 24 April to 5 May 2017, attested to the vitality of each of the conventions in its own right. At those meetings, the parties to the conventions had reaffirmed their willingness to continue cooperating with the Minamata Convention on programmatic matters. He recalled that the four conventions, in accordance with their respective mandates, had been working together on areas of common interest for several years, with benefits for knowledge exchange, policy coherence, and the

effective and efficient use of resources. Coordination on substantive matters had included joint activities on mercury wastes, interim storage, and best available techniques and best environmental practices, and had also covered such cross-cutting issues as legal matters, financial resources and technical assistance, including through the engagement of regional centres. Cooperation had also extended to non-programmatic issues, such as the servicing of meetings and outreach activities. Information on the cooperative activities involving the four conventions was contained in documents UNEP/MC/COP.1/20 and UNEP/MC/COP.1/INF/5, while document UNEP/MC/COP.1/INF/14 set out a compilation of the decisions adopted by the conferences of the parties to the Basel, Rotterdam and Stockholm conventions that made specific reference to the Minamata Convention on Mercury.

II. Organizational matters (agenda item 2)

A. Adoption of the rules of the procedure

- 27. The representative of the secretariat presented the draft rules of procedure for the Conference of the Parties to the Minamata Convention on Mercury (UNEP/MC/COP.1/3), noting that the draft rules had been discussed extensively by the intergovernmental negotiating committee at its sixth session and considered further at its seventh session.
- 28. The Conference of the Parties adopted the rules of procedure as set out in document UNEP/MC/COP.1/3, retaining the square brackets in paragraphs 1 and 3 of rule 45 and requesting interested parties with concerns about the text in question to discuss them informally and report back to plenary later in the week. Decision MC-1/1 adopting the rules of procedure is set out in annex I to the present report.

B. Election of officers

29. In accordance with rule 22 of the rules of procedure, the Conference of the Parties elected the following officers to serve at the first meeting of the Conference of the Parties, during the intersessional period and at the second meeting of the Conference of the Parties:

President: Mr. Marc Chardonnens (Switzerland)

Vice-Presidents: Ms. Svetlana Bolocan (Moldova)

Mr. Karel Bláha (Czechia)

Mr. Gregory Bailey (Antigua and Barbuda)

Mr. Cesar Juarez (Mexico)

Ms. Nina Cromnier (Sweden)

Mr. David Kapindula (Zambia)

Mr. Serge Molly Allo'o Allo'o (Gabon)

Mr. Mitsugu Saito (Japan)

Mr. Mohammed Khashashneh (Jordan)

30. Mr. David Kapindula (Zambia) was elected to serve as rapporteur.

C. Adoption of the agenda

- 31. The Conference of the Parties adopted the following agenda on the basis of the provisional agenda (UNEP/MC/COP.1/1):
 - 1. Opening of the meeting.
 - 2. Organizational matters:
 - (a) Adoption of the rules of procedure;
 - (b) Election of officers;
 - (c) Adoption of the agenda;
 - (d) Appointment of the credentials committee;
 - (e) Organization of work.
 - 3. Report of the credentials committee.

- 4. Report on the achievements of the intergovernmental negotiating committee to prepare a global legally binding instrument on mercury.
- 5. Matters for action by the Conference of the Parties at its first meeting:
 - (a) Matters stipulated under the Convention:
 - (i) The guidance in relation to article 3, particularly in regard to paragraphs 5 (a), 6 and 8 of article 3;
 - (ii) The required content of the certification referred to in paragraphs 6 (b) and 8 of article 3;
 - (iii) The guidance referred to in paragraphs 8 (a) and 8 (b) of article 8;
 - (iv) The measures to give effect to the arrangements for the financial mechanism referred to in article 13;
 - (v) The membership of the Implementation and Compliance Committee as referred to in paragraph 3 of article 15;
 - (vi) The timing and format of the reporting to be followed by the parties, as referred to in paragraph 3 of article 21;
 - (vii) The establishment of arrangements in regard to effectiveness evaluation, as referred to in paragraph 2 of article 22;
 - (viii) Financial rules for the Conference of the Parties and any of its subsidiary bodies, as well as financial provisions governing the functioning of the secretariat, as referred to in paragraph 4 of article 23;
 - (b) Matters stipulated by the Conference of Plenipotentiaries:
 - Provisions for the functions of the permanent secretariat of the Minamata Convention;
 - (ii) Draft memorandum of understanding between the Conference of the Parties to the Minamata Convention and the Council of the Global Environment Facility;
 - (c) Matters recommended by the intergovernmental negotiating committee:
 - (i) Adoption of forms to be used in requesting an exemption from the phase-out dates listed in Annex A and Annex B;
 - (ii) Guidance document on the preparation of national action plans for artisanal and small-scale gold mining;
 - (iii) Physical location of the permanent secretariat;
 - (iv) Consideration of the report on open burning;
 - (d) Programme of work of the secretariat and budget for the period 2018–2019.
- 6. Matters stipulated by the Convention for action by the Conference of the Parties:
 - (a) Consideration of whether trade in specific mercury compounds compromises the objective of the Convention and whether specific mercury compounds should, by their listing in an additional annex adopted in accordance with article 27, be made subject to paragraphs 6 and 8 of article 3;
 - (b) Reports submitted by parties implementing paragraph 2 of article 4 and review of the effectiveness of the measures;
 - (c) The review of Annex A referred to in paragraph 8 of article 4;
 - (d) The review of Annex B referred to in paragraph 10 of article 5;
 - (e) The guidance referred to in paragraphs 9 (a) and 9 (b) of article 8;
 - (f) The guidance referred to in paragraphs 7 (a) and 7 (b) of article 9;
 - (g) The guidelines on the interim storage of mercury and mercury compounds referred to in paragraph 3 of article 10;

- (h) The definition of mercury waste thresholds referred to in paragraph 2 of article 11:
- (i) The guidance on the management of contaminated sites referred to in paragraph 3 of article 12;
- (j) The consideration of capacity-building, technical assistance and technology transfer as referred to in paragraph 4 and paragraph 5 of article 14, including any recommendations on how such activities could be further enhanced under article 14:
- (k) Consultation and collaboration with the World Health Organization, the International Labour Organization and other relevant intergovernmental organizations, and promotion of cooperation and exchange of information, as appropriate, in relation to health-related issues or activities, as referred to in paragraph 2 of article 16.
- 7. Venue and date of the second meeting of the Conference of the Parties.
- 8. Other matters.
- 9. Adoption of the report.
- 10. Closure of the meeting.

D. Appointment of the credentials committee

32. The Conference of the Parties agreed that the Bureau, with the support of the interim secretariat, would act as the credentials committee at the current meeting and requested Mr. Bláha (Czechia) to prepare the committee's report for consideration by the Conference of the Parties.

E. Organization of work

- 33. In accordance with the proposal of the President on the basis of the suggestions of the outgoing Bureau of the intergovernmental negotiating committee, the Conference of the Parties decided that it would meet from 10 a.m. to 1 p.m. and from 3 p.m. to 6 p.m. each day and that small groups would be established as necessary.
- 34. The Conference of the Parties agreed to establish a committee of the whole. The Committee of the Whole would be chaired by Mr. Fernando Lugris (Uruguay), who had ably chaired the seven sessions of the intergovernmental negotiating committee, and would consider all unresolved matters under items 5 and 6, reporting back to plenary the following Friday, 29 September.
- 35. The President informed the Conference of the Parties that after the opening ceremony of the high-level segment in the afternoon of Thursday, 28 September 2019, there would be ministerial round-table discussions on the impact of mercury on air, land and water, followed by an interactive high-level session, to be held at the Palais des Nations, Geneva. The high-level segment would reconvene at the Centre International de Conférences Genève on the morning of Friday, 29 September, to hear the outcomes of the ministerial round tables and to give ministers an opportunity to convey action messages in relation to their countries' commitments on mercury from which key take-home messages would be formulated by the President. The key take-home messages developed by the President are set out in annex II to the present report.
- 36. The Conference of the Parties would then reconvene in plenary on Friday, 29 September 2017, with the aim of finalizing its work, adopting its decisions and completing the work on items 7 to 10 of the agenda.

F. Work of the Committee of the Whole

37. The Committee of the Whole held nine meetings from 25 to 29 September 2017 to consider the agenda items assigned to it. At the second plenary session of the Conference of the Parties, on the evening of 29 September 2017, the Chair of the Committee reported on the outcome of the Committee's work. The report on the proceedings of the Committee is set out in annex III to the present report.

G. Attendance

38. The meeting was attended by representatives of the following 68 parties: Afghanistan, Antigua and Barbuda, Austria, Benin, Bolivia (Plurinational State of), Botswana, Bulgaria, Burkina Faso, Canada, Chad, China, Costa Rica, Czechia, Denmark, Djibouti, Ecuador, El Salvador, Estonia,

European Union, Finland, France, Gabon, Gambia, Ghana, Guinea, Guyana, Honduras, Hungary, Iran (Islamic Republic of), Japan, Jordan, Kuwait, Latvia, Lesotho, Liechtenstein, Madagascar, Mali, Mauritania, Mexico, Monaco, Mongolia, Netherlands, Nicaragua, Norway, Palau, Panama, Peru, Republic of Moldova, Romania, Rwanda, Saint Kitts and Nevis, Samoa, Senegal, Seychelles, Sierra Leone, Slovakia, Slovenia, Sri Lanka, Swaziland, Sweden, Switzerland, Thailand, Togo, United Arab Emirates, United States of America, Uruguay, Viet Nam, Zambia.

- 39. In addition, the meeting was attended by representatives of the following States: Albania, Algeria, Angola, Argentina, Armenia, Australia, Azerbaijan, Bahamas, Bangladesh, Belarus, Belgium, Bosnia and Herzegovina, Brazil, Burundi, Cambodia, Cameroon, Central African Republic, Chile, Colombia, Comoros, Côte d'Ivoire, Croatia, Cuba, Cyprus, Democratic People's Republic of Korea, Democratic Republic of the Congo, Dominican Republic, Egypt, Ethiopia, Georgia, Germany, Guatemala, Guinea Bissau, Haiti, Holy See, Iceland, India, Indonesia, Iraq, Ireland, Italy, Jamaica, Kazakhstan, Kenya, Kiribati, Lao People's Democratic Republic, Lebanon, Liberia, Libya, Lithuania, Luxembourg, Malawi, Malaysia, Maldives, Marshall Islands, Mauritius, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Nepal, New Zealand, Nigeria, Paraguay, Philippines, Poland, Qatar, Republic of Korea, Russian Federation, Saint Lucia, Saudi Arabia, Serbia, Singapore, South Africa, Spain, State of Palestine, Sudan, Suriname, Syrian Arab Republic, Tajikistan, the former Yugoslav Republic of Macedonia, Tunisia, Turkey, Uganda, Ukraine, United Kingdom of Great Britain and Northern Ireland, United Republic of Tanzania, Venezuela (Bolivarian Republic of), Yemen, Zimbabwe.
- 40. The following United Nations entities and specialized agencies were represented as observers: the secretariat of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants, Economic Commission for Europe, Food and Agriculture Organization of the United Nations (FAO), Global Environment Facility (GEF), the Secretariat of the Inter-Organization Programme for the Sound Management of Chemicals, Mediterranean Action Plan-Barcelona Convention Coordinating Unit, United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), United Nations Industrial Development Organization (UNIDO), United Nations Institute for Training and Research (UNITAR), World Bank, World Health Organization (WHO).
- 41. The following intergovernmental organizations were represented as observers: African Union Commission, Amazon Cooperation Treaty Organization, Commission of the Economic Community of West African States, International Energy Agency, League of Arab States, Organization for Economic Cooperation and Development, World Trade Organization.
- The following Basel Convention regional and coordinating centres and Stockholm Convention 42. regional and subregional centres were represented as observers: Basel Convention Regional Centre for the South American Region (BCRC-Argentina), Basel Convention Regional Centre for Training and Technology Transfer for Asia and the Pacific (BCRC-China)/Stockholm Convention Regional Centre for Capacity-building and the Transfer of Technology (SCRC-China), Basel Convention Regional Centre for Training and Technology Transfer for Arab States (BCRC-Egypt), Stockholm Convention Regional Centre for Capacity-building and the Transfer of Technology (SCRC-Panama), Basel Convention Regional Centre (BCRC-Russian Federation), Basel Convention Regional Centre for Training and Technology Transfer for French-speaking Countries in Africa (BCRC-Senegal)/Stockholm Convention Regional Centre for Capacity-building and the Transfer of Technology (SCRC-Senegal), Basel Convention Regional Centre for Training and Technology Transfer for the English-speaking African Countries (BCRC-South Africa)/Stockholm Convention Regional Centre For Capacity-building and the Transfer of Technology (SCRC-South Africa), Pacific Regional Centre for Training and Technology Transfer for the Joint Implementation of the Basel and Waigani Conventions in the South Pacific Region, Basel Convention Regional Centre for the Caribbean Region (BCRC-Trinidad and Tobago).
- 43. A number of non-governmental organizations were represented as observers. The names of those organizations are included in the list of participants (UNEP/MC/COP.1/INF.17).

III. Report of the credentials committee (agenda item 3)

44. Presenting the report of the Bureau on credentials, Mr. Bláha said that the Bureau had examined the credentials submitted by parties in accordance with rules 19 and 20 of the rules of procedure, and had found that, as of Tuesday 26 September 2017, the representatives of 53 parties had submitted credentials issued either by a Head of State or Government or by a minister for foreign

affairs or, in the case of a regional economic integration organization, by the competent authority of that organization. In addition, 16 parties had communicated credentials or information concerning the appointment of representatives by facsimile or in photocopy, or in the form of letters or notes verbales from the mission concerned. Of those, six had since submitted original credentials. One party had not communicated any information on its representatives.

45. The Conference approved the report of the Bureau acting as the credentials committee.

IV. Report on the achievements of the intergovernmental negotiating committee to prepare a global legally binding instrument on mercury (agenda item 4)

Mr. Lugris, Chair of the intergovernmental negotiating committee to prepare a global legally binding instrument on mercury, provided a brief report on the committee's achievements in fulfilling its mandate and completing its negotiations before the twenty-seventh session of the Governing Council of UNEP. The committee's work, he said, had been conducted in an open and consultative manner, culminating in a balanced text that included obligations to enable parties to address the challenges associated with mercury throughout its life cycle, coupled with an innovative financial mechanism to support them in that regard, which would require the backing of an effective secretariat and, among other things, a sound means of evaluating reporting effectiveness. In addition, the Minamata Convention had been equipped with a facilitative implementation and compliance committee and agreement had been reached on several key guidance documents that had already been adopted provisionally during the negotiating process, in particular in relation to trade and supply sources, exemptions and guidance on emissions. Those documents, he said, were expected to be formally adopted at an early stage at the current meeting. Noting that there were still a number of issues requiring further consideration, he said that he was confident that the positive spirit that had characterized the proceedings of the intergovernmental negotiating committee would continue over the coming week and would enable the Conference of the Parties to conclude its work in a cooperative and inclusive manner. He also expressed his appreciation to all involved in the process, in particular the members of the Bureau, the co-chairs of the contact groups and the facilitators of the intergovernmental negotiating committee.

V. Matters for action by the Conference of the Parties at its first meeting (agenda item 5)

- 47. Introducing items 5 and 6, the President proposed, and the Conference of the Parties agreed, that the Conference of the Parties would seek to expedite its work by considering several documents that had been adopted on a provisional basis by the intergovernmental negotiating committee by consensus, while sending others directly to the Committee of the Whole for further consideration. That process had been discussed and agreed to during the regional consultations held prior to the current meeting.
- During subsequent discussions, the President noted that once the meeting entered the decision-making stage, he would seek confirmation on whether any party objected to the adoption of a particular decision, as only parties could participate in the decision-making process. Once a decision had been adopted, non-parties and observers could make additional comments. Two representatives expressed concern that this decision-making procedure did not allow all participants to make equal contributions, as had been the case during discussions in the intergovernmental negotiating committee. It would be important for all views to be taken into consideration by the Conference of the Parties in order for it to reach the best possible decisions and to avoid adopting decisions that might make it difficult for a country to ratify the Convention. Two other representatives underscored the importance of not reopening issues on which agreement had already been reached by the intergovernmental negotiating committee, with one noting that doing so would imperil the ability of the Conference of the Parties to complete its work. Another representative noted that while it was necessary to adhere to proper decision-making procedures, it was also important to listen to all views and maintain an inclusive and transparent process. The President confirmed that all participants would be given the opportunity to make interventions prior to the meeting entering into decision-making mode, at which time only parties would be allowed to take the floor.

A. Matters stipulated under the Convention

1. The guidance in relation to article 3, particularly in regard to paragraphs 5 (a), 6 and 8 of article 3

- 49. The President introduced the sub-item, outlining the information set out in document UNEP/MC/COP.1/5 and noting that the guidance document and draft decision had been approved by the intergovernmental negotiating committee.
- 50. The Conference of the Parties adopted the guidance document and decision MC-1/2 on guidance in relation to mercury supply sources and trade, submitted by the intergovernmental negotiating committee, as set out in annex I to the present report.
- 51. Following the adoption of the decision, one representative noted that while his delegation recognized that the intergovernmental negotiating committee had reached consensus on the sub-item, it would have preferred that additional discussion take place in the Committee of the Whole. In its view, the guidance required transparent definitions of several key terms and other refinements. His delegation would submit a document outlining those concerns to the secretariat which he requested be circulated to participants.

2. The required content of the certification referred to in paragraphs 6 (b) and 8 of article 3

- 52. The President introduced the sub-item, outlining the information set out in document UNEP/MC/COP.1/6 and noting that the guidance document and draft decision had been approved by the intergovernmental negotiating committee.
- 53. The Conference of the Parties adopted the guidance document and decision MC-1/3 on guidance in relation to mercury supply sources and trade in relation to certification, submitted by the intergovernmental negotiating committee, as set out in annex I to the present report.
- 54. Following the adoption of the decision, one representative noted that while his delegation recognized that the intergovernmental negotiating committee had reached consensus on the sub-item, it would have preferred that additional discussion on the matter take place in the Committee of the Whole. In his delegation's view, the guidance required transparent definitions of several key terms and other refinements. His delegation would submit a document outlining those concerns to the secretariat which he requested be circulated to participants.

3. The guidance referred to in paragraphs 8 (a) and 8 (b) of article 8

- 55. The President introduced the sub-item, outlining the information set out document UNEP/MC/COP.1/7 and noting that the guidance document and draft decision had been approved by the intergovernmental negotiating committee.
- 56. In the ensuing discussion, many representatives underscored the importance for the implementation of the Convention by their countries of the draft guidance on best available techniques and on best environmental practices to control emissions of mercury, taking into account any differences between new and existing sources and the need to minimize cross-media effects, and on support for parties in implementing the measures set out in paragraph 5, in particular in determining goals and in setting emission limit values. One representative emphasized that some measures in the guidance document might not be applicable in all contexts and that as guidance documents were inherently dynamic, the current one would need to be revised in the future based on experience gained by the parties over time.
- 57. Several representatives underscored the importance of providing adequate financial resources, technical assistance and technology transfer to developing countries to assist them in implementing elements of the guidelines and to control emissions of mercury. A number outlined specific issues of national concern or activities under way in their countries relevant to limiting emissions. Two representatives highlighted issues surrounding emissions which they believed the document did not adequately address, with one introducing a conference room paper to include household extraction of gold from waste in the Convention. Two other representatives suggested that the work being done under article 8 with regard to emissions should also apply to relevant issues under article 9. Two representatives expressed reservations on the draft decisions accompanying the guidance, with one offering specific amendments.
- 58. The Conference of the Parties concluded its initial consideration of the sub-item by agreeing to adopt the draft guidance as contained in document UNEP/MC/COP.1/7, but to forward the accompanying draft decision to the Committee of the Whole for further consideration.

59. Subsequently, the Conference of the Parties adopted decision MC-1/4, referred to it by the Committee of the Whole, on guidance in relation to mercury emissions, as set out in annex I to the present report.

4. The measures to give effect to the arrangements for the financial mechanism referred to in article 13

- 60. The Conference of the Parties engaged in a preliminary exchange of views on the sub-item prior to the detailed consideration of the relevant documentation.
- 61. One representative drew attention to two conference room papers introduced by a regional group during its opening statement that contained proposals relevant to the financial rules and the specific international programme to support capacity-building and technical assistance, respectively. He underscored the proposal that the specific international programme should be hosted by the secretariat of the Minamata Convention, be governed by a dedicated committee, and not be restricted to existing for a limited period of time. One representative, speaking on behalf of a group of countries, recalled discussions on that and related issues by the international negotiating committee and introduced a conference room paper concerning the guidance to be given by the Conference of the Parties to GEF as part of the arrangements for the financial mechanism. Another representative stated that her delegation could not accept a financial mechanism that did not include both GEF and the specific international programme.
- 62. The Conference of the Parties adopted decision MC-1/5, referred to it by the Committee of the Whole, on guidance to the Global Environment Facility, as set out in annex I to the present report.
- 63. On the matter of the specific international programme, one representative, speaking also on behalf of those Central and Eastern European States that were not member States of the European Union and that were signatories to the Convention but had not yet ratified it, said that signatories to the Convention should be eligible for funding from the specific international programme for technical assistance and capacity-building activities.
- 64. The Conference of the Parties adopted decision MC-1/6, referred to it by the Committee of the Whole, on the specific international programme to support capacity-building and technical assistance, as set out in annex I to the present report, with bracketed text relating to the eligibility of non-parties for funding retained in annex I to the decision, on hosting arrangements, guidance on the operations and duration of the specific international programme, and in annex II, on terms of reference of the specific international programme, specifically relating to the eligibility of non-parties to serve on the Governing Board of the programme.
- 65. Following the adoption of the draft decision, one representative, speaking on behalf of a group of countries, said that as the brackets only remained in the annexes to the decision and the actual body of the decision was clean text, the specific international programme had been formally adopted and could thus be fully implemented.

5. The membership of the Implementation and Compliance Committee as referred to in paragraph 3 of article 15

66. The Conference of the Parties adopted decision MC-1/7, referred to it by the Committee of the Whole, on the membership of the Implementation and Compliance Committee as referred to in paragraph 3 of article 15, as set out in annex I to the present report.

6. The timing and format of the reporting to be followed by the parties, as referred to in paragraph 3 of article 21

67. The Conference of the Parties adopted decision MC-1/8, referred to it by the Committee of the Whole, on the timing and format of reporting by the parties, as set out in annex I to the present report.

7. The establishment of arrangements in regard to effectiveness evaluation as referred to in paragraph 2 of article 22

68. The Conference of the Parties adopted decision MC-1/9, referred to it by the Committee of the Whole, on the establishment of arrangements in regard to effectiveness evaluation, as set out in annex I to the present report.

8. Financial rules for the Conference of the Parties and any of its subsidiary bodies, as well as financial provisions governing the functioning of the secretariat, as referred to in paragraph 4 of article 23

69. The Conference of the Parties adopted decision MC-1/10, referred to it by the Committee of the Whole, on financial rules for the Conference of the Parties to the Minamata Convention on

Mercury and any of its subsidiary bodies, as well as financial provisions governing the functioning of the secretariat, as set out in annex I to the present report, noting that the rules retained certain references to developing countries in brackets.

B. Matters stipulated by the Conference of Plenipotentiaries

1. Provisions for the functions of the permanent secretariat of the Minamata Convention

70. The Conference of the Parties adopted decision MC-1/11, referred to it by the Committee of the Whole, on the secretariat, as set out in annex I to the present report.

2. Draft memorandum of understanding between the Conference of the Parties to the Minamata Convention and the Council of the Global Environment Facility

- 71. The President introduced the sub-item, drawing attention to the information contained in document UNEP/MC/COP.1/15 and the draft memorandum of understanding set out in the annex thereto.
- 72. During the initial consideration of the sub-item, one representative, speaking on behalf of a group of countries, proposed adopting the draft memorandum of understanding between the Conference of the Parties to the Minamata Convention and the Council of the Global Environment Facility, noting that it had been approved by the intergovernmental negotiating committee. Expressing support for that proposal, one representative noted that the memorandum of understanding was not a legally binding document and had been discussed in detail by the intergovernmental negotiating committee. Another representative said that additional discussions were required on the draft text and proposed specific amendments. The Conference of the Parties agreed to forward the issue to the Committee of the Whole for further deliberation.
- 73. Subsequently, following the deliberations of the Committee of the Whole, one representative said that his party could not accept the draft decision or its annex containing the draft memorandum of understanding between the Conference of the Parties to the Minamata Convention and the GEF Council without reference to political considerations operating within the GEF Council that had the potential to hinder the efforts of developing countries and countries with economies in transition to implement their obligations under the Convention. A number of representatives, including one speaking on behalf of a group of countries, said that they were not able to accept the inclusion of such text in the draft decision.
- 74. The representative of the GEF secretariat said that the purpose of the memorandum of understanding was to make provisions for the relationship between the Conference of the Parties and the GEF Council, and to give effect to the provisions related to the GEF Trust Fund in certain paragraphs of the GEF Instrument and in paragraphs 5, 6, 7, 8, 10 and 11 of article 13 of the Minamata Convention. While the decision on guidance to GEF had been adopted at the present meeting, the arrangements were not yet in place to give effect for GEF to function as a financing mechanism for the Minamata Convention.
- 75. The Conference of the Parties agreed to defer further consideration of the matter to the second meeting of the Conference of the Parties.

C. Matters recommended by the intergovernmental negotiating committee

1. Adoption of forms to be used in requesting an exemption from the phase-out dates listed in Annex A and Annex B

- 76. The President introduced the sub-item, outlining the information set out in document UNEP/MC/COP.1/16 and noting that the guidance document and draft decision had been approved by the intergovernmental negotiating committee.
- 77. The Conference of the Parties adopted the guidance document and decision MC-1/12 on formats to be used in registering an exemption from the phase-out dates listed in Annex A and Annex B, including the information to be provided upon registering for an exemption, and for the register of exemptions, submitted by the intergovernmental negotiating committee, as set out in annex I to the present report.

2. Guidance document on the preparation of national action plans for artisanal and small-scale gold mining

78. The Conference of the Parties adopted decision MC-1/13, referred to it by the Committee of the Whole, on artisanal and small-scale gold mining, as set out in annex I to the present report.

3. Physical location of the permanent secretariat

79. As highlighted under item 5 (b) (i), above, on the provisions for the functions of the permanent secretariat of the Minamata Convention, the Conference of the Parties adopted decision MC-1/11, referred to it by the Committee of the Whole, on the secretariat, as set out in annex I to the present report.

4. Consideration of the report on open burning

80. The Conference of the Parties adopted decision MC-1/14, referred to it by the Committee of the Whole, on mercury emissions related to the open burning of waste, as set out in annex I to the present report.

D. Programme of work of the secretariat and budget for the period 2018–2019

- 81. On the matter of the proposed budget for the Minamata Convention on Mercury for the period 2018–2019, the representative of Switzerland clarified that the host country contribution of Switzerland also contained the party's assessed contribution.
- 82. Subsequently, the Conference of the Parties adopted decision MC-1/15, referred to it by the Committee of the Whole, on the programme of work of the secretariat and proposed budget for the biennium 2018–2019, as set out in annex I to the present report.

VI. Matters stipulated by the Convention for action by the Conference of the Parties (agenda item 6)

A. Consideration of whether trade in specific mercury compounds compromises the objective of the Convention and whether specific mercury compounds should, by their listing in an additional annex adopted in accordance with article 27, be made subject to paragraphs 6 and 8 of article 3

83. The Conference of the Parties took note of the proposed action as set out in the report of the Committee of the Whole.

B. Reports submitted by parties implementing paragraph 2 of article 4 and review of the effectiveness of the measures

84. The Conference of the Parties took note of the proposed action as set out in the report of the Committee of the Whole.

C. The review of Annex A referred to in paragraph 8 of article 4

85. The Conference of the Parties took note of the proposed action as set out in the report of the Committee of the Whole.

D. The review of Annex B referred to in paragraph 10 of article 5

86. The Conference of the Parties took note of the proposed action as set out in the report of the Committee of the Whole.

E. The guidance referred to in paragraphs 9 (a) and 9 (b) of article 8

- 87. The President introduced the sub-item, outlining the information set out in document UNEP/MC/COP.1/23 and noting that the guidance document and draft decision had been approved by the intergovernmental negotiating committee.
- 88. The Conference of the Parties adopted the guidance document and decision MC-1/16, referred to it by the Committee of the Whole, on guidance in relation to mercury emissions referred to in paragraphs 9 (a) and 9 (b) of article 8, submitted by the intergovernmental negotiating committee, as set out in annex I to the present report.

F. The guidance referred to in paragraphs 7 (a) and 7 (b) of article 9

89. The Conference of the Parties adopted decision MC-1/17, referred to it by the Committee of the Whole, on guidance in relation to mercury releases, as set out in annex I to the present report.

G. The guidelines on the interim storage of mercury and mercury compounds referred to in paragraph 3 of article 10

90. The Conference of the Parties adopted decision MC-1/18, referred to it by the Committee of the Whole, on draft guidelines on the interim storage of mercury and mercury compounds referred to in paragraph 3 of article 10, as set out in annex I to the present report.

H. The definition of mercury waste thresholds referred to in paragraph 2 of article 11

91. The Conference of the Parties adopted decision MC-1/19, referred to it by the Committee of the Whole, on mercury waste thresholds, as set out in annex I to the present report.

I. The guidance on the management of contaminated sites referred to in paragraph 3 of article 12

92. The Conference of the Parties adopted decision MC-1/20, referred to it by the Committee of the Whole, on guidance on the management of contaminated sites, as set out in annex I to the present report.

J. The consideration of capacity-building, technical assistance and technology transfer as referred to in paragraph 4 and paragraph 5 of article 14, including any recommendations on how such activities could be further enhanced under article 14

93. The Conference of the Parties took note of the proposed action, as set out in the report of the Committee of the Whole, and also adopted decision MC-1/21, referred to it by the Committee of the Whole, on capacity-building, technical assistance and technology transfer, as set out in annex I to the present report.

K. Consultation and collaboration with the World Health Organization, the International Labour Organization and other relevant intergovernmental organizations, and promotion of cooperation and exchange of information, as appropriate, in relation to health-related issues or activities, as referred to in paragraph 2 of article 16

94. The Conference of the Parties took note of the proposed action as set out in the report of the Committee of the Whole.

VII. Venue and date of the second meeting of the Conference of the Parties (agenda item 7)

95. The Conference of the Parties decided to hold the second meeting of the Conference of the Parties in Geneva from 19 to 23 November 2018.

VIII. Other matters (agenda item 8)

96. No other matters were considered.

IX. Adoption of the report (agenda item 9)

97. The Conference of the Parties adopted the present report on the basis of the draft report (UNEP/MC/COP.1/L.1), on the understanding that the Rapporteur would be entrusted with its finalization, in consultation with the secretariat.

X. Closure of the meeting (agenda item 10)

98. The President declared the meeting closed at 3.15 a.m. on Saturday, 30 September 2017.

Annex I

Decisions adopted by the Conference of the Parties to the Minamata Convention on Mercury at its first meeting

MC-1/1: Rules of procedure	16
MC-1/2: Guidance in relation to mercury supply sources and trade	24
MC-1/3: Guidance in relation to mercury supply sources and trade in relation to certification	24
MC-1/4: Guidance in relation to mercury emissions	25
MC-1/5: Guidance to the Global Environment Facility	25
MC-1/6: Specific international programme to support capacity-building and technical assistance	28
MC-1/7: Membership of the implementation and compliance committee as referred to in paragraph 3 of article 15	31
MC-1/8: Timing and format of reporting by the parties	32
MC-1/9: Establishment of arrangements in regard to effectiveness evaluation	43
MC-1/10: Financial rules for the Conference of the Parties to the Minamata Convention on Mercur and any of its subsidiary bodies, as well as financial provisions governing the functioning of the secretariat	ry 46
MC-1/11: Secretariat	50
MC-1/12: Formats to be used in registering for an exemption from the phase-out dates listed in Annex A and Annex B and for the register of exemptions	50
MC-1/13: Guidance on the preparation of national action plans for artisanal and small-scale gold mining	54
MC-1/14: Mercury emissions related to the open burning of waste	54
MC-1/15: Programme of work of the secretariat and proposed budget for the biennium 2018–2019	54
MC-1/16: Guidance in relation to mercury emissions	61
MC-1/17: Guidance in relation to mercury releases	61
MC-1/18: Draft guidelines on the interim storage of mercury and mercury compounds referred to in paragraph 3 of article 10	61
MC-1/19 : Mercury waste	61
MC-1/20: Guidance on the management of contaminated sites	62
MC 1/21:Capacity-building, technical assistance and technology transfer on the Minamata Convention on Mercury	65

MC-1/1: Rules of procedure

The Conference of the Parties,

Recalling paragraph 4 of article 23 of the Minamata Convention on Mercury,

Decides to adopt the rules of procedure for the Conference of the Parties set out in the annex to the present decision, with the exception of the second sentence of paragraph 1 of rule 45 and paragraph 3 of rule 45.

Annex to decision MC-1/1

Rules of procedure for the Conference of the Parties to the Minamata Convention on Mercury

I. Introduction

Rule 1

The present rules of procedure shall apply to any meeting of the Conference of the Parties to the Minamata Convention on Mercury convened in accordance with article 23 of the Convention.

Rule 2

For the purposes of the present rules:

- 1. "Convention" means the Minamata Convention on Mercury, adopted at Kumamoto, Japan, on 10 October 2013;
 - 2. "Party" means a party as defined in article 2 (g) of the Convention;
- 3. "Conference of the Parties" means the Conference of the Parties established by article 23 of the Convention;
- 4. "Meeting" means any ordinary or extraordinary meeting of the Conference of the Parties convened in accordance with article 23 of the Convention;
- 5. "Regional economic integration organization" means an organization defined in paragraph (j) of article 2 of the Convention;
- 6. "President" means the President of the Conference of the Parties elected in accordance with paragraphs 1 or 2 of rule 22;
- 7. "Secretariat" means the secretariat established by paragraph 1 of article 24 of the Convention;
- 8. "Subsidiary body" means any body established pursuant to paragraph 5 (a) of article 23 of the Convention;
- 9. "Parties present and voting" means parties present at the meeting in which voting takes place and casting an affirmative or negative vote. Parties abstaining from voting shall be considered as not voting;
 - 10. "Chair" means chair or co-chairs as appropriate.

II. Meetings

Rule 3

The meetings of the Conference of the Parties shall take place at the seat of the secretariat, unless the Conference of the Parties decides otherwise or other appropriate arrangements are made by the secretariat in consultation with the parties.

Rule 4

- 1. Unless otherwise decided by the Conference of the Parties, the second and third ordinary meetings of the Conference of the Parties shall be held yearly and, thereafter, ordinary meetings shall be held every two years.
- 2. At each ordinary meeting, the Conference of the Parties shall decide on the date and duration of the next ordinary meeting. The Conference of the Parties should endeavour not to hold

such meetings at a time that would make the attendance of a significant number of delegations difficult.

- 3. Extraordinary meetings of the Conference of the Parties shall be held at such times as may be decided either by the Conference of the Parties at an ordinary meeting or at the written request of any Party, provided that, within ninety days of the request being communicated to the parties by the secretariat, it is supported by at least one third of the parties.
- 4. In the case of an extraordinary meeting held at the written request of a Party, it shall be held not more than ninety days after the date on which the request is supported by at least one third of the parties in accordance with paragraph 3 of the present rule.

Rule 5

The secretariat shall notify all parties of the dates and venue of ordinary and extraordinary meetings at least sixty days before the meeting in question is due to commence.

III. Observers

Rule 6

- 1. The United Nations, its specialized agencies, the International Atomic Energy Agency, as well as any State not party to the Convention and any entity operating the mechanism referred to in paragraph 5 of article 13 of the Convention, may be represented at meetings as observers.
- 2. Such observers may, upon the invitation of the President, participate in the proceedings of any meeting without the right to vote, unless at least one third of the parties present at the meeting object.

Rule 7

- 1. Any body or agency, whether national or international, governmental or non-governmental, which is qualified in matters covered by the Convention and which has informed the secretariat of its wish to be represented at a meeting as an observer, may be so admitted, unless at least one third of the parties present object.
- 2. Such observers may, upon the invitation of the President, participate without the right to vote in the proceedings of any meeting in matters of direct concern to the body or agency they represent, unless at least one third of the parties present at the meeting object.

Rule 8

The secretariat shall notify those entitled to be observers and those that have informed the secretariat of their wish to be represented, pursuant to rules 6 and 7 of the present rules of procedure, of the dates and venue of the next meeting.

IV. Agenda

Rule 9

In agreement with the President, the secretariat shall prepare the provisional agenda of each meeting.

Rule 10

The provisional agenda of each ordinary meeting shall include, as appropriate:

- (a) Items arising from the articles of the Convention, including those specified in its article 23:
- (b) Items the inclusion of which has been decided at a previous meeting;
- (c) Items referred to in rule 16 of the present rules of procedure;
- (d) The proposed budget as well as all questions pertaining to the accounts and financial arrangements;
- (e) Any item proposed by a Party and received by the secretariat before the provisional agenda is circulated.

Rule 11

For each ordinary meeting, the provisional agenda, together with supporting documents, shall be issued in the official languages of the Conference of the Parties and distributed by the secretariat to the parties at least six weeks before the opening of the meeting.

Rule 12

The secretariat shall, in agreement with the President, include any item that is proposed by a Party and has been received by the secretariat after the provisional agenda for an ordinary meeting has been produced, but before the opening of the meeting, in a supplementary provisional agenda.

Rule 13

When adopting the agenda for an ordinary meeting, the Conference of the Parties may decide to add, delete, defer or amend items. Only items that are considered by the Conference of the Parties to be urgent and important may be added to the agenda.

Rule 14

The agenda for an extraordinary meeting shall consist only of those items proposed for consideration by the Conference of the Parties at an ordinary meeting or in the request for the holding of the extraordinary meeting. It shall be distributed to the parties at the same time as the notification of the extraordinary meeting.

Rule 15

The secretariat shall report to the Conference of the Parties on the administrative and budgetary implications of all substantive agenda items submitted to the meeting, before they are considered by it. Unless the Conference of the Parties decides otherwise, no such substantive agenda item shall be considered until at least forty-eight hours after the Conference of the Parties has received a report of the secretariat on its administrative and budgetary implications.

Rule 16

Any item of the agenda of an ordinary meeting, consideration of which has not been completed at the meeting, shall be included automatically in the provisional agenda of the next ordinary meeting, unless otherwise decided by the Conference of the Parties.

V. Representation and credentials

Rule 17

Each Party participating in a meeting shall be represented by a delegation consisting of a head of delegation and such other accredited representatives, alternate representatives and advisers as it may require.

Rule 18

An alternate representative or an adviser may act as a representative upon designation by the head of delegation.

Rule 19

The credentials of representatives as well as the names of alternate representatives and advisers shall be submitted to the secretariat if possible not later than twenty-four hours after the opening of the meeting. Any later change in the composition of the delegation shall also be submitted to the secretariat. The credentials shall be issued either by the Head of State or Government or by the Minister of Foreign Affairs or, in the case of a regional economic integration organization, by the competent authority of that organization.

Rule 20

The Bureau of any meeting shall examine the credentials and submit its report to the Conference of the Parties.

Rule 21

Representatives shall be entitled to participate provisionally in the meeting, pending a decision by the Conference of the Parties on their credentials.

VI. Officers

Rule 22

- 1. At the commencement of the first ordinary meeting of the Conference of the Parties, a President and nine Vice-Presidents, one of whom shall act as Rapporteur, shall be elected from among the representatives of the parties present at the meeting. These officers shall serve as the Bureau of the Conference of the Parties. Each of the five United Nations regional groups shall be represented by two Bureau members. They shall remain in office until the closure of the second ordinary meeting of the Conference of the Parties, including for any intervening extraordinary meeting.
- 2. At the second and subsequent ordinary meeting of the Conference of the Parties, a President and nine Vice-Presidents, one of whom shall act as Rapporteur, shall be elected from among the representatives of the parties present at the meeting. These officers shall serve as the Bureau of the Conference of the Parties. Each of the five United Nations regional groups shall be represented by two Bureau members. These officers shall commence their term of office at the closure of the meeting at which they are elected and remain in office until the closure of the following ordinary meeting of the Conference of the Parties, including for any intervening extraordinary meeting.
- 3. The offices of the President and Rapporteur shall normally be subject to rotation among the United Nations regional groups. No elected officer may serve on the Bureau for more than two consecutive terms.
- 4. The President shall participate in meetings of the Conference of the Parties in that capacity and shall not at the same time exercise the rights of a representative of a Party. The Party concerned shall designate another representative who shall be entitled to represent the Party in the meetings and to exercise the right to vote.
 - 5. The chairs of any subsidiary bodies shall be members ex-officio of the Bureau.

Rule 23

- 1. In addition to exercising the powers conferred upon the President elsewhere by the present rules, the President shall declare the opening and closing of the meeting, preside at the meeting, ensure the observance of the present rules, accord the right to speak, put questions to the vote and announce decisions. The President shall rule on points of order and, subject to the present rules, shall have complete control of the proceedings and over the maintenance of order at the meeting.
- 2. The President may propose to the Conference of the Parties the closure of the list of speakers, a limitation on the time to be allowed to speakers and on the number of times each representative may speak on a question, the adjournment or the closure of the debate and the suspension or the adjournment of a session.
- 3. The President, in the exercise of the functions of that office, remains under the authority of the Conference of the Parties.

Rule 24

- 1. The President, if temporarily absent from a meeting or any part thereof, shall designate a Vice-President to act as President. The President so designated shall not at the same time exercise the rights of a representative of a Party.
 - 2. A Vice-President acting as President shall have the powers and duties of the President.

Rule 25

If an officer of the Bureau resigns or is otherwise unable to complete the assigned term of office or to perform the functions of that office, a representative of the same Party shall be named by the Party concerned to replace the said officer for the remainder of that officer's term.

VII. Subsidiary bodies

Rule 26

Save as provided in rules 28–31, the present rules shall apply, mutatis mutandis, to the proceedings of any subsidiary bodies, subject to any modifications decided by the Conference of the Parties.

Rule 27

- 1. The Conference of the Parties may establish, in accordance with paragraph 5 (a) of article 23 of the Convention, such subsidiary bodies as it considers necessary for the implementation of the Convention.
- 2. Meetings of subsidiary bodies shall be held in public unless the Conference of the Parties or the subsidiary body concerned decides otherwise.

Rule 28

In the case of a subsidiary body that is not open-ended, a simple majority of the parties designated by the Conference of the Parties to participate therein shall constitute a quorum.

Rule 29

The Conference of the Parties shall decide on the dates of the meetings of the subsidiary bodies, taking note of any proposals to hold such meetings in conjunction with the meetings of the Conference of the Parties.

Rule 30

The chair of any subsidiary body shall be elected by the Conference of the Parties unless the Conference of the Parties decides otherwise with due consideration to rotation. Each subsidiary body shall elect its own officers other than the chair. The officers of such subsidiary bodies shall be elected with due regard to the principle of equitable geographical representation and shall not serve for more than two consecutive terms.

Rule 31

The Conference of the Parties shall determine the matters to be considered by each subsidiary body and the President may, upon the request of the Chair of the subsidiary body concerned, adjust the allocation of work.

VIII. Secretariat

Rule 32

- 1. The head of the secretariat, or the representative of the head of the secretariat, shall exercise the functions of that office in all meetings of the Conference of the Parties and of its subsidiary bodies.
- 2. The head of the secretariat shall arrange for the provision of staff and services required by the Conference of the Parties and its subsidiary bodies, within available resources. The head of the secretariat shall manage and direct such staff and services and provide appropriate support and advice to the Bureau of the Conference of the Parties and its subsidiary bodies.

Rule 33

In addition to the functions specified in the Convention, in particular in article 24, the secretariat shall, in accordance with the present rules:

- (a) Arrange for interpretation at the meeting;
- (b) Collect, translate, reproduce and distribute the documents of the meeting;
- (c) Publish and distribute the official documents of the meeting;
- (d) Make and arrange for keeping of sound recordings of the meeting;
- (e) Arrange for the custody and preservation of the documents of the meeting.

IX. Conduct of business

Rule 34

Sessions of the Conference of the Parties shall be held in public, unless the Conference of the Parties decides otherwise.

Rule 35

1. The President shall not declare a session of the meeting of the Conference of the Parties open or permit the debate to proceed unless at least one third of the parties to the Convention

are present. The presence of two thirds of the parties to the Convention shall be required for any decision to be taken.

2. For the purposes of determining a quorum for a decision to be taken on a matter within the competence of a regional economic integration organization, that organization shall be counted to the extent of the number of votes it is entitled to cast in accordance with paragraph 2 of article 28 of the Convention.

Rule 36

- 1. No one may address a meeting without having previously obtained the permission of the President. Subject to rules 37, 38, 39 and 41, the President shall call upon speakers in the order in which they signify their desire to speak. The secretariat shall maintain a list of speakers. The President may call a speaker to order if the speaker's remarks are not relevant to the subject under discussion.
- 2. The Conference of the Parties may, on a proposal from the President or from any Party, limit the time allowed to each speaker and the number of times each representative may speak on a question. Before a decision is taken, two representatives may speak in favour of and two against a proposal to set such limits. When the debate is limited and a speaker exceeds the allotted time, the President shall call the speaker to order without delay.

Rule 37

The chair or rapporteur of a subsidiary body may be accorded precedence for the purpose of explaining the conclusions arrived at by that subsidiary body.

Rule 38

During the discussion of any matter, a representative may at any time raise a point of order, on which the President shall immediately rule in accordance with the present rules. A representative may appeal against the ruling of the President. The appeal shall be put to the vote immediately and the ruling shall stand unless overruled by a majority of the parties present and voting. A representative may not, in raising a point of order, speak on the substance of the matter under discussion.

Rule 39

Any motion calling for a decision on the competence of the Conference of the Parties to discuss any matter or to adopt a proposal or an amendment to a proposal submitted to it shall be put to the vote before the matter is discussed or a vote taken on the proposal or amendment in question.

Rule 40

Proposals and amendments to proposals shall normally be introduced in writing, in one of the official languages, by the parties and handed to the secretariat, which shall circulate copies to delegations. As a general rule, no proposal or amendment to a proposal shall be discussed or put to the vote at any session unless copies of it have been circulated to delegations not later than the day preceding that session. The President may, however, permit the discussion and consideration of proposals, of amendments to proposals or of procedural motions even though such proposals, amendments to proposals or motions have not been circulated or have been circulated only the same day.

Rule 41

- 1. Subject to rule 38, the following motions shall have precedence in the order indicated below over all other proposals or motions:
 - (a) To suspend the session;
 - (b) To adjourn the session;
 - (c) To adjourn the debate on the question under discussion;
 - (d) To close the debate on the question under discussion.
- 2. Permission to speak on a motion falling within paragraph 1 (a)–(d) of the present rule shall be granted only to the proposer and, in addition, to one speaker in favour of and two against the motion, after which it shall be put immediately to the vote.

Rule 42

A proposal or motion may be withdrawn by its proposer at any time before voting on it has begun, provided that the proposal or motion has not been amended. A proposal or motion thus withdrawn may be reintroduced by any other Party.

Rule 43

When a proposal has been adopted or rejected, it may not be reconsidered at the same meeting, unless the Conference of the Parties, by a two-thirds majority of the parties present and voting, so decides. Permission to speak on a motion to reconsider shall be accorded only to the mover, to one speaker in favour of and two against the proposal, after which it shall be put immediately to the vote.

X. Voting

Rule 44

- 1. Each Party shall have one vote, except as provided for in paragraph 2 of the present rule.
- 2. A regional economic integration organization, on matters within its competence, shall exercise its right to vote with a number of votes equal to the number of its member States that are parties to the Convention. Such an organization shall not exercise its right to vote if any of its member States exercises its right to vote, and vice versa.

Rule 45

- 1. The parties shall make every effort to reach agreement on all matters of substance by consensus. [If all efforts to reach consensus have been exhausted and no agreement has been reached, the decision shall, as a last resort, be taken by a two-thirds majority vote of the parties present and voting, unless otherwise provided by the Convention, by the financial rules referred to in paragraph 4 of article 23 of the Convention or by the present rules of procedure.]
- 2. Decisions of the Conference of the Parties on matters of procedure shall be taken by a majority vote of the parties present and voting.
- [3. If the question arises of whether a matter is one of a procedural or substantive nature, [this matter shall be considered as a matter of substance.] [the President shall rule on the question. An appeal against this ruling shall be put to the vote immediately [and the President's ruling shall stand unless overruled by a majority of the parties present and voting.]] [and the matter shall be treated as substantive unless determined to be procedural by a two-thirds majority of the parties present and voting.]]
- 4. If on matters other than elections a vote is equally divided, a second vote shall be taken. If this vote is also equally divided, the proposal shall be regarded as rejected.

Rule 46

If two or more proposals relate to the same question, the Conference of the Parties, unless it decides otherwise, shall vote on the proposals in the order in which they have been submitted. The Conference of the Parties may, after each vote on a proposal, decide whether to vote on the next proposal.

Rule 47

- 1. Any representative may request that any part of a proposal or of an amendment to a proposal be voted on separately. The President shall allow the request unless a Party objects. If an objection is made to the request for division, the President shall permit two representatives to speak, one in favour of and the other against the request, after which it shall be put immediately to the vote. The President may limit the time allowed to each speaker.
- 2. If the request referred to in paragraph 1 is allowed or adopted, those parts of a proposal or of an amendment to a proposal that are approved shall then be put to a vote as a whole. If all the operative parts of a proposal or amendment have been rejected, the proposal or amendment shall be considered to have been rejected as a whole.

Rule 48

A motion is considered to be an amendment to a proposal if it merely adds to, deletes from, or revises parts of that proposal. An amendment shall be voted on before the proposal to which it relates is put to the vote, and if the amendment is adopted, the amended proposal shall then be voted on.

Rule 49

If two or more amendments to a proposal are proposed, the Conference of the Parties shall first vote on the amendment furthest removed in substance from the original proposal, then on the next

amendment furthest removed therefrom, and so on, until all the amendments have been put to the vote. The President shall determine the order of voting on the amendments under the present rule.

Rule 50

- 1. Voting, except for elections, shall normally be by show of hands. A roll call vote shall be taken if so requested by any Party. The roll call shall be taken in the English alphabetical order of the names of the parties, beginning with the Party whose name is drawn by lot by the President. If at any time, however, a Party requests a secret ballot, that shall be the method of voting on the issue in question.
- 2. When the Conference of the Parties votes by mechanical means, a non-recorded vote shall replace a vote by show of hands and a recorded vote shall replace a roll call.
- 3. The vote of each Party participating in a roll call or recorded vote shall be included in the relevant documents of the meeting.

Rule 51

After the President has announced the beginning of voting, no representative shall interrupt the voting except on a point of order in connection with the actual conduct of the voting. The President may permit the parties to explain their votes, either before or after the voting. The President may limit the time to be allowed for such explanations. The President shall not permit the proposer of a proposal or of an amendment to a proposal to explain his or her vote on his or her own proposal or amendment, except if it has been amended.

XI. Elections

Rule 52

All elections shall be held by secret ballot, unless otherwise decided by the Conference of the Parties.

Rule 53

- 1. If, when one person or one delegation is to be elected, no candidate obtains in the first ballot a majority of the votes cast by the parties present and voting, a second ballot restricted to the two candidates obtaining the largest number of votes shall be taken. If in the second ballot the votes are equally divided, the President shall decide between the candidates by drawing lots.
- 2. In the case of a tie in the first ballot among three or more candidates obtaining the largest number of votes, a second ballot shall be held. If a tie results among more than two candidates, the number shall be reduced to two by lot and the balloting, restricted to them, shall continue in accordance with the procedure set forth in paragraph 1 of the present rule.

Rule 54

- 1. When two or more elective places are to be filled at one time under the same conditions, those candidates, not exceeding the number of such places, obtaining in the first ballot the largest number of votes and a majority of the votes cast by the parties present and voting shall be deemed elected.
- 2. If the number of candidates obtaining such majority is less than the number of persons or delegations to be elected, there shall be additional ballots to fill the remaining places, the voting being restricted to the candidates obtaining the greatest number of votes in the previous ballot, to a number not more than twice the number of places remaining to be filled, provided that, after the third inconclusive ballot, votes may be cast for any eligible person or delegation.
- 3. If three such unrestricted ballots are inconclusive, the next three ballots shall be restricted to the candidates who obtained the greatest number of votes in the third of the unrestricted ballots, to a number not more than twice the number of places remaining to be filled, and the following three ballots thereafter shall be unrestricted, and so on until all the places have been filled.

XII. Languages and sound records

Rule 55

The official languages of the Conference of the Parties shall be Arabic, Chinese, English, French, Russian and Spanish.

Rule 56

- 1. Statements made in an official language shall be interpreted into the other official languages.
- 2. A representative of a Party may speak in a language other than an official language if the Party provides for interpretation into one such official language.

Rule 57

Official documents of the meetings shall be drawn up in one of the official languages and translated into the other official languages.

Rule 58

Sound recordings of the meetings of the Conference of the Parties, and whenever possible of the subsidiary bodies, shall be kept by the secretariat, consistent with the practice of the United Nations.

XIII. Amendments to the rules of procedure

Rule 59

The present rules of procedure may be amended by consensus by the Conference of the Parties.

XIV. Overriding authority of the Convention

Rule 60

In the event of any conflict between any provision of the present rules and any provision of the Convention, the Convention shall prevail.

MC-1/2: Guidance in relation to mercury supply sources and trade

The Conference of the Parties,

Recognizing the importance of the informed consent procedures set out in article 3 of the Minamata Convention on Mercury,

 $Recognizing\ also$ the importance of information on stocks of mercury and mercury compounds and sources of supply of mercury,

Decides to adopt the guidance in regard to article 3, particularly in regard to paragraphs 5 (a), 6 and 8 on stocks of mercury and mercury compounds, sources of supply of mercury, and the export of mercury from parties and non-parties, as put forward by the intergovernmental negotiating committee.¹

MC-1/3: Guidance in relation to mercury supply sources and trade in relation to certification

The Conference of the Parties

Decides to adopt the required content of certification to be used in conjunction with the forms for the export of mercury from parties and non-parties as put forward by the intergovernmental negotiating committee to prepare a global legally binding instrument on mercury.²

¹ UNEP/MC/COP.1/5, annexes II–IV.

² UNEP/MC/COP.1/6, annex II.

MC-1/4: Guidance in relation to mercury emissions

The Conference of the Parties,

T

Recognizing the importance of the control of mercury emissions in achieving the objective of the Minamata Convention on Mercury,

Decides to adopt the guidance with regard to article 8, particularly its paragraphs 8 (a) and (b), on best available techniques and on best environmental practices, taking into account any differences between new and existing sources and the need to minimize cross-media effects, and on support for parties in implementing the measures set out in paragraph 5, in particular in determining goals and in setting emission limit values, as put forward by the intergovernmental negotiating committee to prepare a global legally binding instrument on mercury;³

П

Recognizing further that some of the control measures described in the guidance may not be available to all parties for technical or economic reasons,

Noting that paragraph 10 of Article 8 of the convention requires the Conference of the Parties to keep the guidance under review, and update it as appropriate, in order to reflect any circumstances not currently fully covered,

Requests parties with experience in using such guidance to provide the secretariat with information on that experience, and the secretariat to compile such information and, in consultation with parties and others, to update the guidance as necessary.

MC-1/5: Guidance to the Global Environment Facility

The Conference of the Parties

- 1. Adopts the guidance to the Global Environment Facility on the overall strategies, policies, programme priorities and eligibility for access to and utilization of financial resources and on an indicative list of categories of activities that could receive support from the Global Environment Facility Trust Fund, as set out in the annex to the present decision;
- 2. *Requests* the secretariat to transmit the guidance to the Council of the Global Environment Facility.

Annex to decision MC-1/5

Guidance to the Global Environment Facility on overall strategies, policies, programme priorities and eligibility for access to and utilization of financial resources and on an indicative list of categories of activities that could receive support from the Global Environment Facility Trust Fund

1. Pursuant to article 13 of the Minamata Convention on Mercury, the present guidance is intended to assist the Global Environment Facility (GEF) in fulfilling its role as one of the entities entrusted with the operation of the financial mechanism of the Minamata Convention.

I. Eligibility for access to and utilization of financial resources

- 2. To be eligible for funding from GEF as one of the entities comprising the financial mechanism of the Minamata Convention on Mercury, a country must be a Party to the Convention and must be a developing country or a country with an economy in transition.
- 3. Activities that are eligible for funding from the GEF Trust Fund are those that seek to meet the objectives of the Convention and are consistent with the present guidance.
- 4. Signatories to the Convention are eligible for funding from GEF for enabling activities, provided that any such signatory is taking meaningful steps towards becoming a Party as evidenced by a letter from the relevant minister to the Executive Director of the United Nations Environment Programme and to the Chief Executive Officer and Chairperson of the Global Environment Facility.

³ UNEP/MC/COP.1/7, annexes II and III.

II. Overall strategies and policies

- 5. In accordance with article 13, paragraph 7, of the Convention, the GEF Trust Fund shall provide new, predictable, adequate and timely financial resources to meet costs in support of implementation of the Convention as agreed by the Conference of the Parties, including costs arising from activities that:
 - (a) Are country-driven;
- (b) Are in conformity with programme priorities as reflected in relevant guidance provided by the Conference of the Parties;
 - (c) Build capacity and promote the utilization of local and regional expertise, if applicable;
 - (d) Promote synergies with other focal areas;
- (e) Continue to enhance synergies and co-benefits within the chemicals and waste focal area;
- (f) Promote multiple-source funding approaches, mechanisms and arrangements, including from the private sector, if applicable;
- (g) Promote sustainable national socioeconomic development, poverty reduction and activities consistent with existing national sound environmental management programmes geared towards the protection of human health and the environment.

III. Programme priorities

- 6. In accordance with article 13, paragraph 7, of the Convention, the GEF Trust Fund shall provide resources to meet the agreed incremental costs of global environmental benefits and the agreed full costs of some enabling activities.
- 7. In particular, it should give priority to the following activities when providing financial resources to developing-country parties and parties with economies in transition:
- (a) Enabling activities, particularly Minamata Convention initial assessment activities and national action plans for artisanal and small-scale gold mining;
- (b) Activities to implement the provisions of the Convention, affording priority to those that:
 - (i) Relate to legally binding obligations;
 - (ii) Facilitate early implementation on entry into force of the Convention for a Party;
 - (iii) Allow for a reduction in mercury emissions and releases and address the health and environmental impacts of mercury.
- 8. In providing resources for an activity, GEF should take into account the potential mercury reductions of a proposed activity relative to its costs in accordance with paragraph 8 of article 13 of the Convention.

IV. Indicative list of categories of activities that could receive support

A. Enabling activities

- 1. Minamata Convention initial assessments (MIAs)
- 2. Preparation of national action plans for artisanal and small-scale gold mining in accordance with paragraph 3 of article 7 and Annex C
- 3. Other types of enabling activities as agreed by the Conference of the Parties

B. Activities to implement the provisions of the Convention

- 1. Activities to implement the provisions of the Convention that relate to legally binding obligations
 - 9. When providing financial resources to eligible parties for activities to implement the provisions of the Convention, GEF should afford priority to those activities that relate to legally binding obligations of parties under the Convention and should take into account the potential mercury

	of a proposed activity relative to its costs. Such activities could include those related to the areas, listed in no particular order:
	Mercury supply sources and trade;
	Mercury-added products;
	Manufacturing processes in which mercury or mercury compounds are used;
	Artisanal and small-scale gold mining;
	Emissions;
	Releases;
	Environmentally sound interim storage of mercury, other than waste mercury;
	Mercury wastes;
	Reporting;
	Relevant capacity-building, technical assistance and technology transfer in relation to the above.
	to implement the provisions of the Convention that facilitate early implementation nto force of the Convention for a Party
implement although t	hen considering activities to implement the provisions of the Convention that facilitate early ration on entry into force, GEF should also consider providing support for activities that, hey are not the subject of a legal obligation under the Convention, may significantly to a Party's preparedness to implement the Convention upon its entry into force for that
11. W	ithin the context of the GEF mandate, such activities could include, inter alia, support for:
	With regard to emissions, the development by parties with relevant sources of of national plans setting out the measures to be taken to control emissions and their argets, goals and outcomes;
(b) national pland outcome	ans setting out the measures to be taken to control releases and their expected targets, goals
	With regard to contaminated sites, capacity-building for the development of strategies ying and assessing sites contaminated by mercury or mercury compounds and, as e, the remediation of those sites;
(d)	Information exchange;

(e) Public information, awareness and education;

2.

- (f) Cooperation in the development and improvement of research, development and monitoring;
 - (g) Development of implementation plans following initial assessments.

3. Activities to implement the provisions of the Convention that allow for the reduction of mercury emissions and releases and address both the health and environmental impacts of mercury

12. Activities to implement the provisions of the Convention that allow for the reduction of mercury emissions and releases and address both the health and environmental impacts of mercury may encompass activities relating to both binding and non-binding provisions, with priority accorded to the legally binding provisions discussed above, that accord with the GEF mandate to deliver global environmental benefits and reflect the GEF chemicals and waste focal area strategy.

V. Review by the Conference of the Parties

13. In accordance with paragraph 11 of article 13, the Conference of the Parties will review, no later than at its third meeting, and thereafter on a regular basis, the level of funding, the guidance provided by the Conference of the Parties to GEF as one of the entities entrusted with operationalizing the mechanism established under article 13 and the mechanism's effectiveness and ability to address the changing needs of developing-country parties and parties with economies in transition. On the

basis of such review, the Conference of the Parties will take appropriate action to improve the effectiveness of the financial mechanism, including by updating and prioritizing as necessary its guidance to GEF.

MC-1/6: Specific international programme to support capacity-building and technical assistance

The Conference of the Parties,

Recalling article 13 of the Minamata Convention on Mercury, which establishes a financial mechanism to support developing-country parties and parties with economies in transition in implementing their obligations under the Convention, and that the mechanism includes the Global Environment Facility Trust Fund and a specific international programme to support capacity-building and technical assistance,

Recalling also paragraph 6 of the resolution on financial arrangements of the Final Act of the Conference of Plenipotentiaries of the Minamata Convention on Mercury (known as "resolution 2"), in which the Conference requested the intergovernmental negotiating committee to develop a legally binding instrument on mercury "to develop for consideration by the Conference of the Parties at its first meeting a proposal for the hosting institution for the specific international programme, including any necessary arrangements with the hosting institution, as well as guidance on the operation and duration of that programme",

- 1. *Decides* that the hosting institution referred to in paragraph 9 of article 13 is provided by the United Nations Environment Programme;
- 2. Approves the necessary hosting arrangements, as well as guidance on the operations and duration of that programme, set out in annex I to the present decision and the terms of reference of the specific international programme set out in the annex II to the present decision;
- 3. *Requests* the Executive Director of the United Nations Environment Programme to establish a trust fund for the specific international programme;
- 4. *Also requests* the Executive Director of the United Nations Environment Programme to implement the governance arrangements set out in the annexes to the present decision.

Annex I to decision MC-1/6

Hosting arrangements, guidance on the operations of and duration of the specific international programme

A. Governance arrangements for the specific international programme

- 1. The Executive Director of the United Nations Environment Programme (UNEP) will deliver administrative support to the programme, through the allocation of human and other resources, through the secretariat of the Minamata Convention.⁴
- 2. The Conference of the Parties will establish a governing board of the specific international programme, which will oversee and implement its guidance, including decision-making on projects and project management.

B. Guidance on the specific international programme

1. Scope

- 3. The specific international programme is to support capacity-building and technical assistance in accordance with paragraph 6 (b) of article 13.
- 4. Technical assistance and capacity-building activities under the specific international programme and those undertaken by the Minamata Convention secretariat pursuant to article 14 should avoid duplication and overlap.

2. Eligibility

5. Developing-country parties and parties with economies in transition are eligible for resources under the financial mechanism in accordance with paragraph 5 of article 13 of the Convention. The specific international programme should also take full account of the specific needs and special

⁴ Without prejudging the decision on the hosting of the Minamata Convention secretariat.

circumstances of parties that are small island developing States and least developed countries, in line with paragraph 4 of article 13.

6. [Non-parties are not eligible to apply for funding but can participate in some activities undertaken by the specific international programme upon invitation by a Party, on a case-by-case basis.]

[6. alt Signatories to the Convention are eligible for funding from the specific international programme for technical assistance and capacity-building activities, provided that any such signatory is taking meaningful steps towards becoming a Party as evidenced by a letter from the relevant minister to the Executive Director of the United Nations Environment Programme.]

7. In presenting projects, eligible parties may consider the participation of implementing and executing agencies or other actors, such as non-governmental organizations and the regional and subregional centres of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal and the Stockholm Convention on Persistent Organic Pollutants.

3. Operations

- 8. The specific international programme will be guided in its operations as follows. It should:
- (a) Be country-driven, taking into consideration national priorities, country ownership and the sustainable implementation of the obligations under the Convention;
- (b) Ensure complementarity and avoid duplication with other existing arrangements to provide capacity-building and technical support, in particular the Global Environment Facility and the Special Programme to support institutional strengthening at the national level for implementation of the Basel Convention, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention, the Minamata Convention and the Strategic Approach to International Chemicals Management, as well as other existing assistance frameworks;
- (c) Build upon lessons learned and engage at the national and regional levels, including by encouraging South-South cooperation;
- (d) Be consistent with the integrated approach to financing the sound management of chemicals and waste, as relevant to the implementation of the Convention.

4. Resources

- 9. Resources for the specific international programme shall include financial and in-kind contributions and expertise. Contributions of resources are encouraged from a broad range of sources. This includes all parties to the Minamata Convention with the capacity to contribute, as well as other relevant stakeholders, including Governments, the private sector, foundations, non-governmental organizations, intergovernmental organizations, academia and other types of civil society actors;
- 10. A resource mobilization strategy for the specific international programme should be developed by the secretariat in consultation with the specific international programme Governing Board with a view to achieving the objective of the Convention and attracting a broad range of donors, building on lessons learned in other areas. It should include approaches whose purpose is to leverage resources, including in-kind resources, from non-State actors;
- 11. Other sources of resources for the specific international programme may be leveraged through its coordination with other relevant programmes and initiatives, including:
 - (a) Linkages with existing programmes and initiatives to seek co-benefits where possible;
- (b) Promoting and leveraging partnerships and collaboration as appropriate, building on lessons learned from other conventions.

C. Duration

12. The specific international programme will be open to receive voluntary contributions and applications for support for a period of ten years from the establishment of its trust fund. The Conference of the Parties may decide to extend this period, not exceeding an additional seven years, taking into account the review process of the financial mechanism in accordance with paragraph 11 of article 13 of the Minamata Convention.

Annex II to decision MC-1/6

Terms of reference of the specific international programme

A. Governing Board of the specific international programme (SIP Governing Board)

- 1. The Governing Board of the specific international programme (hereinafter "SIP Governing Board") shall consist of 10 members [from] [nominated by] parties. Each of the five United Nations regions shall nominate two members through their respective Bureau representatives.
- 2. The first members of the SIP Governing Board shall be nominated no later than 31 December 2017, and will serve until the third meeting of the Conference of the Parties to the Minamata Convention. Thereafter, the members shall be nominated every two years by regional groups and their membership confirmed by the Conference of the Parties.
- 3. The draft rules of procedure of its Governing Board shall be drafted by the secretariat for consideration and adoption by the Board, and presented to the Conference of the Parties at its second meeting for its information.
- 4. The SIP Governing Board will have two co-chairs, elected from among the members of the Board, reflecting the composition of the Board and the purpose of the Programme.
- 5. The SIP Governing Board will take its decisions by consensus. If all efforts to reach consensus have been exhausted and no agreement has been reached, the decision shall be taken by a three-quarters majority of its members present and voting.
- 6. The SIP Governing Board will in principle meet once a year to approve project applications and review progress under the Programme on the basis of reports from the Minamata Convention secretariat, as well as other relevant information provided to them on implementation of the Programme.
- 7. The SIP Governing Board will take operational decisions regarding the functioning of the specific international programme, including the approval of applications for funding based on the guidance provided by the Conference of the Parties and will endorse, as appropriate, criteria and procedures for application, assessment, reporting and evaluation.
- 8. The secretariat will process application proposals for approval by the SIP Governing Board, manage approved allocations and service the SIP Governing Board. The secretariat will report on its operations to the Governing Board and will be accountable to the Executive Director of UNEP for administrative and financial matters. The secretariat will submit an annual report to the Governing Board, which will also be presented to the Conference of the Parties, including relevant information on the rejection of project proposals.

B. Project screening, appraisal and approval processes

- 9. The Minamata Convention secretariat will receive applications directly from national Governments through their national focal points.
- 10. All those in a position to do so may provide technical assistance in the development of project applications, upon request by project applicants.
- 11. The Minamata Convention secretariat will screen project applications for completeness and eligibility. The secretariat will also appraise, with the appropriate staff expertise within the secretariat, applications for consideration and decision by the Governing Board, in consultation with relevant international governmental organizations, provided that there are no cost implications.

C. Administrative support to the specific international programme

- 12. The secretariat will provide one position for the technical assistance and capacity-building activities of the secretariat and the activities of the specific international programme, to be covered by the General Trust Fund, taking into account that the staffing requirements of the specific international programme will be reviewed.
- 13. The costs related to the operation of the specific international programme, including the costs of meetings, shall be funded from voluntary contributions to the programme.

D. Expected outcomes

14. The support for capacity-building and technical assistance provided by the specific international programme is expected to improve the capacity of developing-country parties and parties with economies in transition in implementing their obligations under the Convention.

E. Accounts and audit

15. The accounts and financial management of the specific international programme shall be subject to the internal and external audit process of the United Nations. Accounts for the specific international programme shall be presented to the SIP Governing Board within three months after the closure of the financial period and shall also be considered by the Conference of the Parties to the Minamata Convention.

MC-1/7: Membership of the implementation and compliance committee as referred to in paragraph 3 of article 15

The Conference of the Parties

Elects, in accordance with paragraph 3 of article 15 of the Minamata Convention on Mercury, the following members to serve on the committee to promote the implementation of, and review compliance with, all the provisions of the Convention:

From the African States:

Ms. Hanitriniaina Liliane Randrianomenjanahary (Madagascar)

Mr. Mohamed Abdoulai Kamara (Sierra Leone)

Ms. Bianca Hlob'sile Dlamini (Swaziland)

From the Asia-Pacific States:

Ms. Wang Qian (China)

Mr. Heidar Ali Balouji (Islamic Republic of Iran)

Mr. S. M. D. P. Anura Jayatilake (Sri Lanka)

From the Central and Eastern European States:

Mr. Boyko Malinov (Bulgaria)

Ms. Inga Poroghin (Republic of Moldova)

Ms. Claudia Sorina Dumitru (Romania)

From the Latin American and Caribbean States:

Mr. Diego Henrique Costa Pereira (Brazil)

Ms. Vilma Morales Quillama (Peru) (1st year) and Mr. José Antonio Piedra Montoya (Ecuador) (2nd year)

Mr. Arturo Gavilan Garcia (Mexico) (1st year) and Ms. Alejandra Acosta (Argentina) (2nd year)

From the Western European and other States:

Ms. Janine van Aalst (Netherlands)

Mr. Mark Govoni (Switzerland)

Ms. Jennifer Landsidle (United States of America)

MC-1/8: Timing and format of reporting by the parties

The Conference of the Parties

- 1. Decides, in accordance with article 21 of the Minamata Convention on Mercury, that each party shall report every four years using the full format set out in the annex to the present decision and report every two years with respect to the questions in that format marked by an asterisk by 31 December of the following year;
- 2. Also decides, in accordance with article 21, that each party shall submit its first biennial short report using the available information by 31 December 2019 and its first full report by 31 December 2021 for consideration by the Conference of the Parties at its subsequent meeting;
- 3. *Adopts* the format for reporting pursuant to article 21 set forth in the annex to the present decision;
- 4. *Encourages* each party, when submitting its report pursuant to article 21, to provide the secretariat with an electronic version of its report;
- 5. *Requests* the secretariat to make available to parties the above-mentioned format for reporting;
- 6. *Also requests* the secretariat to make available an electronic version of the party's previous report so that it may be updated as appropriate;
- 7. Further requests the secretariat to provide information, including the reporting rate, to the Conference of the Parties to assist in its review pursuant to paragraph 5 (c) of article 23.

Annex to decision MC-1/8

Reporting format for the Minamata Convention on Mercury

Reporting on measures to be taken to implement the provisions of the Convention, the effectiveness of such measures and the challenges encountered

INSTRUCTIONS

Pursuant to article 21 of the Minamata Convention on Mercury, each party to the Convention shall report to the Conference of the Parties on the measures it has taken to implement the provisions of the Convention, on the effectiveness of such measures and on possible challenges in meeting the objectives of the Convention.

Parties are requested to use the attached reporting format to report in accordance with article 21. An electronic version of the format is available for download from the Convention home page:

http://www.mercuryconvention.org. Hard copies and electronic versions in CD format are also available upon request from the secretariat (see below for contact details). Subsequent to the submission of each party's first report, the secretariat will send out an electronic version of the party's previous report so that it can be updated as appropriate.

Part A of the reporting format calls for general information on the party for which the report is being submitted, such as the name and contact details of the national focal point or the contact officer submitting the report on behalf of the party. It is expected that the national focal point will have been designated by the party in accordance with article 17, paragraph 4, of the Convention. It is important that all relevant information be provided in order to assist the secretariat in identifying the completed report.

Part B of the format calls for information on the measures taken by the reporting party to implement the relevant provisions of the Minamata Convention and on the effectiveness of such measures in meeting the objectives of the Convention. Note that the effectiveness of implementing measures that are described by a party is separate from the evaluation of the effectiveness of the treaty under article 22. Description of the effectiveness of the implementing measures should be provided based on a party's particular situation and capabilities, but should nevertheless be handled as consistently as possible in the party's report. Mandatory information forms the core of the reporting format. As noted, additional information would facilitate the evaluation of the effectiveness of the Convention and additional questions have been added to obtain this information. These additional questions are identified as supplemental information and responses can be provided voluntarily at the party's discretion, but parties are strongly encouraged to complete these aspects where they have relevant information.

Part C provides an opportunity to comment on possible challenges in meeting the objectives of the Convention.

Part D provides an opportunity to comment on the reporting format and possible improvements.

Part E provides an opportunity to provide additional comments on each of the articles in free text if the party chooses to do so. In implementing an electronic format, the opportunity for comment would be available throughout part B of the reporting format, with links from each article.

Additional information to supplement that requested may be attached.

The reporting forms must be submitted to the Conference of the Parties through the Minamata Convention secretariat in any of the six official languages of the United Nations. Further information and assistance may be sought from the secretariat at the following address:

Secretariat for the Minamata Convention

United Nations Environment Programme

Internet home page: www.mercuryconvention.org

Part A

MINAMATA CONVENTION ON M NATIONAL REPORT PURSUANT TO A	
1. Information on the Party	
Name of party	
Date on which its instrument of ratification, accession, approval or acceptance was deposited	(day/month/year)
Date of entry into force of the Convention for the party	(day/month/year)
2. INFORMATION ON THE NATIONAL FOCAL POINT	
Full name of the institution	
Name and title of contact officer	
Mailing address	
Telephone number	
Fax number	
E-mail	
Web page	
3. Information about the contact officer submitting the repo	PRTING FORMAT IF DIFFERENT FROM THE
Full name of the institution	
Name and title of contact officer	
Mailing address	
Telephone number	
Fax number	
E-mail	
Web page	
4. Date the report was submitted	(day/month/year)

Part B

Article 3: Mercury supply sources and trade

				mercury mines that were operating within its territory at the on for the party? (Para. 3.)
		Yes		
		No		
	If y	es, please	e indicate:	
	a)	The anti	cipated date of clos	sure of the mine(s): (month, year) OR
	b)	The date	e upon which the m	ine(s) closed: (month, year)
	c)	*Total a	mount mined	metric tons per year
				mercury mines that are now in operation that were not in e of the Convention for the party? (Para. 3, para. 11.)
		Yes		
		No		
	If y	v es , pleas	e explain.	
excee	ding	50 metric		ntify individual stocks of mercury or mercury compounds of mercury supply generating stocks exceeding 10 metric tons tory? (Para. 5.)
		Yes		
		No		
	a)		*If the party answ	vered Yes to Question 3 above:
		i.		e results of your endeavour or indicate where it is available on less unchanged from a previous reporting round.
		ii.		Please provide any related information, for example on the use nercury from such stocks and sources.
	b)	If th	e party answered N	o above, please explain.
		the party (Para. 5. (ary available from the decommissioning of chlor-alkali
		Yes		
		No		
	acco	ordance v of artic	with the guidelines	res taken to ensure that the excess mercury was disposed of in for environmentally sound management referred to in paragraph ons that did not lead to recovery, recycling, reclamation, direct . 5 (b), para. 11.)
with a	article	e 3, includ	ding any required c	or relied on a general notification of consent, in accordance ertification from importing non-parties, for all exports of e reporting period. (Para. 6, para. 7.)
	Ye	s, exports	s to parties	
	Ye	s, exports	s to non-parties:	
	No)		
	If y	es,		
		a. furthe	and the party has er information is ne	submitted copies of the consent forms to the secretariat, then no eded.
		If the	party has not previ	ously provided such copies, it is recommended that it do so.
				le other suitable information showing that the relevant oh 6 of article 3 have been met.
		Suppl	lemental: please pro	ovide information on the use of the exported mercury.

		b. If exports were based on a general notification in accordance with article 3, paragraph 7, please indicate, if available, the total amount exported and any relevant terms or conditions in the general notification related to use.
6.	Has th	e party allowed the import of mercury from a non-party?
		No
		Yes
		If yes , and the party has submitted copies of the consent forms to the secretariat, then no further information is needed.
		If the party has not previously provided such copies, it is recommended that it do so.
		Otherwise, please provide other suitable information showing that the relevant requirements of paragraph 8 of article 3 have been met.
		Supplemental: Please provide information on the quantities and countries of origin.
		The importing party has relied on paragraph 7 of article 3.
		If yes, or if the party relied on paragraph 7 of article 3, did the non-party provide certification that the mercury is not from sources identified under paragraph 3 or paragraph 5 (b) of article 3? (Para. 8.)
		Yes
		No
		The party has submitted its general notification of consent, applied paragraph 9 of article 3, and provided information on the quantities and countries of origin.
		If no , please explain.
Art	icle 4: N	lercury-added products
	nercury-	the party taken any appropriate measures to not allow the manufacture, import or export added products listed in Part I of Annex A of the Convention after the phase-out date those products? (Para.1.)
(If t	the party	is implementing paragraph 2, please skip to question 2.)
		Yes
		No
	If ye	s, please provide information on the measures.
	If n o	, has the party registered for an exemption pursuant to article 6?
		Yes
		No
	If ye	s, for which products (please list)? (Para. 1, para. 2 (d).)
2.	If yes	(implementing paragraph 2 of article 4): (Para. 2.)
mea		ry reported to the Conference of the Parties at the first opportunity a description of the strategies implemented, including a quantification of the reductions achieved?
		Yes
		No
in F		cy implemented measures or strategies to reduce the use of mercury in any products listed Annex A for which a de minimis value has not yet been obtained?
		Yes
		No
	If ye	es, please provide information on the measures.

	2 (c).)	considered additional measures to achieve further reductions?
		Yes
		No
	If yes,	please provide information on the measures.
3. Annex		e party taken two or more measures for the mercury-added products listed in Part II of cordance with the provisions set out therein? (Para. 3.)
		Yes
		No
	If yes,	please provide information on the measures.
4. added		e party taken measures to prevent the incorporation into assembled products of mercurys whose manufacture, import and export are not allowed under article 4? (Para. 5.)
		Yes
		No
	If yes,	please provide information on the measures.
5. produ		e party discouraged the manufacture and the distribution in commerce of mercury-added overed by any known use in accordance with article 4, paragraph 6? (Para. 6.)
		Yes
		No
	If yes,	please provide information on the measures taken.
	enviror	as there been an assessment of the risks and benefits of the product that demonstrates amental or health benefits? Has the party provided to the secretariat, as appropriate, ation on any such product?
		Yes
		No
	If yes, p	please name the product:
Articl	e 5: Ma	nufacturing processes in which mercury or mercury compounds are used
	ocesses l	ere facilities within the territory of the party that use mercury or mercury compounds for isted in Annex B of the Minamata Convention in accordance with paragraph 5 of article ention? (Para. 5.)
		Yes
		No
		Do not know (please explain)
		please provide information on measures taken to address emissions and releases of y or mercury compounds from such facilities.
		able, please provide information on the number and type of facilities and the estimated amount of mercury or mercury compounds used in those facilities.
		provide information on how much mercury (in metric tons) is used in the processes in the two first entries of Part II of Annex B in the last year of the reporting period.
	acturing	easures in place to not allow the use of mercury or mercury compounds in processes listed in Part I of Annex B after the phase-out date specified in that Annex ual process? (Para. 2.)
	Chlor-	alkali production:
		Yes
		No
		Not applicable (do not have these facilities)

	If yes,	please provide information on these measures.
	Acetal	dehyde production in which mercury or mercury compounds are used as a catalyst:
		Yes
		No
		Not applicable (do not have these facilities)
	If yes,	please provide information on these measures.
	If no to article	o either of the questions above, has the party registered for an exemption pursuant to 6?
		Yes
		No
	If yes,	for which process(es)? (please list)
3. listed i		easures in place to restrict the use of mercury or mercury compounds in the processes of Annex B in accordance with the provisions set out therein? (Para. 3.)
	Vinyl	chloride monomer production:
		Yes
		No
		Not applicable (do not have these facilities)
	If yes,	please provide information on these measures.
	Sodiur	n or potassium methylate or ethylate:
		Yes
		No
		Not applicable (do not have these facilities)
	If yes,	please provide information on these measures.
	Produc	tion of polyurethane using mercury-containing catalysts:
		Yes
		No
		Not applicable (do not have these facilities)
	If yes,	please provide information on these measures.
-		e any use of mercury or mercury compounds in a facility using the manufacturing d in Annex B that did not exist prior to the date of entry into force of the Convention for (a. 6.)
		Yes
		No
	If yes,	please explain the circumstances.
	ry or me	e any facility that has been developed using any other manufacturing process in which recury compounds are intentionally used that did not exist prior to the date of entry into envention? (Para. 7.)
		Yes
		No
	that the Parties	please provide information on how the party tried to discourage this development or e party has demonstrated the environmental and health benefits to the Conference of the and that there are no technically and economically feasible mercury-free alternatives ble providing such benefits.

Article 7: Artisanal and small-scale gold mining

compoun	ıds in	steps been taken to reduce, and where feasible eliminate, the use of mercury and mercury and the emissions and releases to the environment of mercury from, artisanal and old mining and processing subject to article 7 within your territory? (Para. 2.)
Ε]	Yes
]	No
		There is no artisanal and small-scale gold mining and processing subject to article 7 in which mercury amalgamation is used in the territory.
It	f yes,	, please provide information on the steps.
		ne party determined and notified the secretariat that artisanal and small-scale gold mining g within its territory is more than insignificant?
] }	Yes
	J N	No
It	f no ,	please proceed to article 8 on emissions
		ne party developed and implemented a national action plan and submitted it to the Para. 3 (a), para. 3 (b).)
] Y	Yes
	J N	No
] I	n progress
		h your most recent review that must be completed under paragraph 3 (c) of article 7, t yet due.
		emental: Has the party cooperated with other countries or relevant intergovernmental or other entities to achieve the objective of this article? (Para. 4.)
] \	Yes
] N	No
I	f yes,	, please provide information.
Article 8	: En	nissions
		y any Annex D source categories for which there are new sources of emissions of hercury compounds as defined in paragraph 2 (c) of article 8.
		nose source categories describe the measures in place, including the effectiveness of such implement the requirements of paragraph 4 of article 8.
(BAT/B	EP) to	required the use of best available techniques or best environmental practices o control and where feasible reduce emissions for new sources no later than 5 years after try into force of the Convention for the party? (Para. 4.)
] \	Yes
	J N	No (please explain)
		fy any Annex D source categories for which there are existing sources of emissions of ercury compounds as defined in paragraph 2 (e) of article 8.
paragrap	h 5 o	nose source categories, select and provide details on the measures implemented under of article 8 and explain the progress that these applied measures have achieved in ssions over time in your territory:
		A quantified goal for controlling and, where feasible, reducing emissions from relevant sources;
		Emission limit values for controlling and, where feasible, reducing emissions from relevant sources;
]	Use of BAT/BEP to control emissions from relevant sources;

	Ц	Multi-pollutant control strategy that would deliver co-benefits for control of mercury emissions;
		Alternative measures to reduce emissions from relevant sources.
		easures for existing sources under paragraph 5 of article 8 been implemented no later than ter the date of entry into force of the Convention for the party?
		Yes
		No (please explain)
3. into for		the party prepared an inventory of emissions from relevant sources within 5 years of entry f the Convention for it? (Para. 7.)
		Yes
		No
		Have not been a party for 5 years
	If y	es, when was the inventory last updated?
Please	indi	cate where this inventory is available.
If no s	uch ii	nventory exists, please explain.
4. categor		the party chosen to establish criteria to identify relevant sources covered within a source Para. 2 (b).)
		Yes
		No
	nat ca	the explain how the criteria for any category include at least 75 percent of the emissions attegory and explain how the party took into account guidance adopted by the Conference of
5. emissio		the party chosen to prepare a national plan setting out the measures to be taken to control com relevant sources and its expected targets, goals and outcomes? (Para. 3.)
		Yes
		No
		es, has the party submitted its national plan to the Conference of the Parties under this cle no later than 4 years after the date of entry into force of the Convention for the party?
		Yes
		No (please explain)
Article	e 9: F	Releases
1. of artic		there, within the party's territory, relevant sources of releases as defined in paragraph 2 (b) (Para. 4.)
		Yes
		No
		Do not know (please explain)
		es, please indicate the measures taken to address releases from relevant sources and the ctiveness of those measures. (Para. 5.)
		the party established an inventory of releases from relevant sources within 5 years of entry f the convention for it? (Para. 6.)
		Yes
		Relevant sources do not exist in the territory
		Have not been a party for 5 years
		No (please explain)
	_	es, when was the inventory last updated?
	Plea	use indicate where the information is available.

Article 10: Environmentally sound interim storage of mercury, other than waste mercury

	ry co	the party taken measures to ensure that the interim storage of non-waste mercury and mpounds intended for a use allowed to a party under the Convention is undertaken in an atally sound manner? (Para 2.)
		Yes
		No
		Do not know (please explain)
		es, please indicate the measures taken to ensure that such interim storage is undertaken in environmentally sound manner and the effectiveness of those measures.
Article	e 11:	Mercury wastes
1. waste?		re measures outlined in article 11, paragraph 3, been implemented for the party's mercury (a. 3.)
		Yes
		No
		es, please describe the measures implemented pursuant to paragraph 3, and please also cribe the effectiveness of those measures.
2. *Are party's		re facilities for final disposal of waste consisting of mercury or mercury compounds in the tory?
		Yes
		No
		Do not know (please explain)
	con	ves, if the information is available, how much waste consisting of mercury or mercury appounds has been subjected to final disposal under the reporting period? Please specify the hod of the final disposal operation/operations.
Article	e 12:	Contaminated sites
1.		the party endeavoured to develop strategies for identifying and assessing sites ed by mercury or mercury compounds in its territory? (Para. 1.)
		Yes
		No
	Plea	ase elaborate
Article	e 13:	Financial resources and mechanism
	al act	the party undertaken to provide, within its capabilities, resources in respect of those ivities that are intended to implement the Convention in accordance with its national orities, plans and programmes? (Para. 1.)
		Yes (please specify)
		No (please specify why not)
	Plea	ase provide comments, if any.
2. in para		plemental: Has the party, within its capabilities, contributed to the mechanism referred to h 5 of article 13? (Para. 12.)
	(Ple	ease tick one box only)
		Yes (please specify)
		No (please specify why not)
	Plea	ase provide comments, if any.
3. and/or		plemental: Has the party provided financial resources to assist developing-country parties es with economies in transition in the implementation of the Convention through other

bilateral, regional and multilateral sources or channels? (Para. 3.)

	(Ple	ase tick one box only)
		Yes (please specify)
		No (please specify why not)
	Plea	se provide comments, if any.
Article	e 14:	Capacity-building, technical assistance and technology transfer
		he party cooperated to provide capacity-building or technical assistance, pursuant to another party to the Convention? (Para. 1.)
		Yes (Please specify)
		No (Please specify)
		lemental: Has the party received capacity-building or technical assistance pursuant to Para. 1.)
		Yes (please specify)
		No (Please specify)
	Plea	se provide comments, if any.
3. to, up-		the party promoted and facilitated the development, transfer and diffusion of and access e environmentally sound alternative technologies? (Para. 3.)
Please	e tick	one box only)
		Yes (please specify)
		No (please specify why not)
		Other (please provide information)
Article	e 16: 1	Health aspects
l. accord		e measures been taken to provide information to the public on exposure to mercury in with paragraph 1 of article 16?
		Yes
		No
	Supp	blemental: If yes , describe the measures that have been taken.
2. (Para.		e any other measures been taken to protect human health in accordance with article 16?
		Yes
		No
	Supp	blemental: If yes , describe the measures that have been taken.
Article	e 17: 1	Information exchange
l. (Para.		the party facilitated the exchange of information referred to in article 17, paragraph 1?
		Yes
		No
		se provide more information, if any.
Article		Public information, awareness and education
l. inform		e measures been taken to promote and facilitate the provision to the public of the kinds of listed in article 18, paragraph 1? (Para. 1.)
		Yes
		No
	-	s, please indicate the measures that have been taken and the effectiveness of those sures?

Article 19: Research, development and monitoring

1. paragra	Has the party undertaken any research, development and monitoring in accordance raph 1 of article 19? (Para. 1.)	nce with
	□ Yes	
	□ No	
	If yes, please describe these actions.	
	C: Comments regarding possible challenges in meeting the objectives of the C (21, para. 1)	Convention
Supple	lemental: Part D: Comments regarding the reporting format and possible im	provements, if

MC-1/9: Establishment of arrangements in regard to effectiveness evaluation

The Conference of the Parties,

Recognizing the urgent need for a framework for the effectiveness evaluation of the Minamata Convention on Mercury that includes a strategic, cost-effective approach that provides appropriate and sufficient data,

Taking note of the compilation of information made available through the process of the intergovernmental negotiating committee to prepare a global legally binding instrument on mercury,

Acknowledging the global mercury assessments requested by the Governing Council of the United Nations Environment Programme and the Minamata Convention initial assessments as important sources of information contributing to the effectiveness evaluation.

- 1. Adopts annexes I and II to the present decision;
- 2. *Requests* the secretariat to support the work outlined in these two annexes.

Annex I to decision MC-1/9

Draft road map for establishing arrangements for providing the Conference of the Parties with comparable monitoring data, and elements of an effectiveness evaluation framework under article 22 of the Minamata Convention

Activity	Time frame
Nominations for the ad hoc group of experts are provided to the secretariat through the bureau members of the Conference of the Parties.	1 November 2017
The ad hoc group of experts will meet face-to-face, drawing on previously submitted information collated by the secretariat, and taking into account work undertaken under other multilateral environmental agreements including the Stockholm Convention.	January/February 2018
The ad hoc group of experts prepares the draft report including the outline, plan, and elements of the effectiveness evaluation framework, and the secretariat makes the draft report available for comments.	15 May 2018

Activity	Time frame
The ad hoc group of experts revises and finalizes the report including the outline, plan, and elements of the effectiveness evaluation framework, and the secretariat forwards it to the second Conference of the Parties for consideration.	20 July 2018
The final report is considered by the Conference of the Parties at its second meeting.	November 2018 (tentative date for the second meeting of the Conference of the Parties)

Annex II to decision MC-1/9

Draft terms of reference for an ad hoc group of experts on the arrangements for providing the Conference of the Parties with comparable monitoring data, and elements of an effectiveness evaluation framework under article 22 of the Minamata Convention

I. Mandate

The Conference of the Parties hereby establishes an ad hoc group of experts to:

- (a) Develop monitoring arrangements, taking into account the experience of other multilateral environmental agreements, including the Stockholm Convention, for consideration by the Conference of the Parties at its second meeting, including:
 - (i) An outline of the types of data that could be comparable on a global basis, as well as their availability;
 - (ii) A draft plan that integrates comparable results for future monitoring that countries and stakeholders may choose to undertake; and as part of this work:
 - Review information on existing monitoring programmes, including from the information that has been reported to the secretariat by Governments and intergovernmental and non-governmental organizations, and others that are available;
 - Assess to what extent the information reviewed under paragraph (a) (ii) a.
 meets the needs for monitoring set out in paragraph 2 of article 22) of the
 Convention, and on that basis outline options to enhance comparability
 and completeness of the information reviewed;
 - c. Take into consideration cost-effectiveness, practicality, feasibility and sustainability, global coverage, and regional capabilities in identifying opportunities for future enhancements to monitoring;
 - d. Identify available modelling capabilities to assess changes in global mercury levels within and across different media;
 - e. Identify sources of data that can be used for establishing a baseline;
 - f. Identify how monitoring activities may contribute to the development of the effectiveness evaluation framework;
- (b) Develop elements of an effectiveness evaluation framework, taking into account the experience under other multilateral environmental agreements, including the Stockholm Convention, for consideration by the Conference of the Parties at its second meeting, inter alia, by:
 - (i) Identifying the steps required to undertake an effectiveness evaluation;
 - (ii) Suggesting a process flow (schedule) for the effectiveness evaluation planning;
 - (iii) Identifying arrangements for conducting the effectiveness evaluation;
 - (iv) Drafting terms of reference for the committee developing the first effectiveness evaluation;
 - (v) Assessing potential approaches to the development of performance indicators;

(c) Prepare a report on its work for submission to the Conference of the Parties for consideration at its second meeting, including recommendations on monitoring arrangements and effectiveness evaluation.

II. Membership

The ad hoc group of experts will be composed of 25 Government-designated experts drawn from the regions as follows:

Each region should designate at least three representatives with expertise on monitoring arrangements and at least one representative with expertise on effectiveness evaluation.

African States: 5
Asia-Pacific States: 5
Central and Eastern European States: 5
Latin American and Caribbean States: 5
Western European and other States: 5

The group will invite the participation of up to 10 experts from civil society, indigenous communities, intergovernmental organizations, industry and the UNEP Global Mercury Partnership as observers. The participation of observers will be balanced among the above-mentioned groups.

The group will invite input from other Governments, intergovernmental organizations, indigenous communities, industry and civil society organizations to assist it in completing its work.

III. Recommended qualifications

Members and observers of the ad hoc group of experts should have:

- (a) Experience relevant to the development of a monitoring scheme for the collection and analysis of mercury sampling data for the purposes of assessing trends including expertise in either modelling, biotic and aquatic sampling, atmospheric sampling and/or human exposure, and/or indigenous traditional knowledge;
- (b) Expertise relevant to developing and implementing monitoring under multilateral environmental agreements, such as the Global Monitoring Plan under the Stockholm Convention; or
 - (c) Experience relevant to effectiveness evaluation.

IV. Officers

Two co-chairs will be elected by the ad hoc group of experts to facilitate the meeting.

V. Secretariat

The secretariat will provide administrative support to the ad hoc group of experts.

VI. Administrative and procedural matters

The rules of procedure of the Conference of the Parties will apply, mutatis mutandis, to the ad hoc group of experts.

VII. Meetings

The ad hoc group of experts will meet face-to-face once, and at other times will meet via teleconference or webinars prior to the second meeting of the Conference of the Parties.

VIII. Language

English will be the working language of the ad hoc group of experts. The report of the ad hoc group of experts to the Conference of the Parties will be translated into Arabic, Chinese, French, Russian and Spanish.

MC-1/10: Financial rules for the Conference of the Parties to the Minamata Convention on Mercury and any of its subsidiary bodies, as well as financial provisions governing the functioning of the secretariat

The Conference of the Parties,

Recalling paragraph 4 of article 23 of the Minamata Convention on Mercury,

Decides to adopt the financial rules for the Conference of the Parties and its subsidiary bodies set out in the annex to the present decision.

Annex to decision MC-1/10

Financial rules for the Conference of the Parties to the Minamata Convention on Mercury, its subsidiary bodies and the secretariat of the Convention

Scope

Rule 1

The present rules shall govern the financial administration of the Conference of the Parties to the Minamata Convention on Mercury, its subsidiary bodies and the Convention secretariat. In respect of matters not specifically provided for by the present rules, the Financial Regulations and Rules of the United Nations shall apply.

Financial period

Rule 2

The financial period shall be a calendar year. The biennial programme of work and budget of the Minamata Convention shall normally consist of two consecutive calendar years, the first of which shall be an even year.

Budget

Rule 3

- 1. The head of the secretariat of the Minamata Convention on Mercury shall prepare budget estimates for the following biennium in United States dollars showing projected income and expenditures for each year. The budget should be presented in a programmatic format consistent with the format used by the secretariats of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants. The head of the secretariat shall dispatch the estimates, as well as the actual income and expenditure for each year of the previous biennium and estimates of actual expenditure in the current biennium, to all parties to the Convention at least 90 days before the opening of the meeting of the Conference of the Parties at which the budget is to be adopted.
- 2. The Conference of the Parties shall, prior to the commencement of the financial period that the budget covers, consider the budget estimates and adopt an operational budget by consensus authorizing expenditures, other than those referred to in rule 4, paragraphs 3, 4 and 5.
- 3. The head of the secretariat shall provide the Conference of the Parties with cost estimates for actions that have budgetary implications that are not foreseen in the draft programme of work but are included in proposed draft decisions prior to the adoption of those decisions by the Conference of the Parties.
- 4. The adoption of the operational budget by the Conference of the Parties shall constitute the authority of the head of the secretariat to incur commitments and make payments for the purposes for which the appropriations were approved and up to the amounts so approved, provided always that, unless specifically authorized by the Conference of the Parties, commitments shall be covered by related received funds.
- 5. The head of the secretariat may make transfers within each of the main appropriation lines of the approved operational budget. The head of the secretariat may also make transfers between such

⁵ Linked to the decision on hosting arrangements for the secretariat.

appropriation lines up to 20 per cent of the main appropriation line from which the transfer is made unless another limit is set by the Conference of the Parties.

Funds

Rule 4

- 1. A general trust fund for the Convention shall be established by the Executive Director of the United Nations Environment Programme and managed by the head of the secretariat. The fund is to provide financial support for the work of the Convention secretariat. Contributions made pursuant to rule 5, paragraph 1 (a) and (b), shall be credited to this fund. Contributions made pursuant to rule 5, paragraph 1 (e), by the United Nations Environment Programme shall be credited to this fund. All budget expenditures that are made pursuant to rule 3, paragraph 4, shall be charged to the General Trust Fund.
- 2. Within the General Trust Fund there shall be maintained a working capital reserve at a level to be determined from time to time by the Conference of the Parties by consensus. The purpose of the working capital reserve shall be to ensure continuity of operations in the event of a temporary shortfall of cash. Following any drawdown of the working capital reserve, it shall be restored to its established level as soon as possible and no later than the end of the following year.
- 3. A special trust fund shall be established by the Executive Director of the United Nations Environment Programme and managed by the head of the secretariat. This fund shall receive contributions pursuant to rule 5, paragraph 1 (c) to (e), to support, in particular:
 - (a) The activities of the Minamata Convention secretariat in accordance with article 14;
- (b) The participation of representatives of developing-country parties, in particular the least developed country parties and small island developing States among them, and of parties with economies in transition, in the meetings of the Conference of the Parties and its subsidiary bodies pursuant to the procedure set out in the annex to the financial rules;
 - (c) Other appropriate purposes consistent with the objectives of the Convention.
- 4. A specific trust fund shall be established by the Executive Director of the United Nations Environment Programme for the specific international programme to support capacity-building and technical assistance in accordance with article 13.
- 5. Subject to the approval of the Conference of the Parties, the Executive Director of the United Nations Environment Programme may establish other trust funds, provided that they are consistent with the objectives of the Convention.
- 6. In the event that the Conference of the Parties decides to terminate a trust fund established pursuant to the present rules, it shall so advise the Executive Director of the United Nations Environment Programme at least six months before the date of termination so decided. The Conference of the Parties shall decide, in consultation with the Executive Director of the United Nations Environment Programme, on the distribution of any uncommitted balances after all liquidation expenses have been met.

Contributions

Rule 5

- 1. The resources of the Conference of the Parties shall comprise:
- (a) Contributions made each year by Parties on the basis of an indicative scale adopted by consensus by the Conference of the Parties and based on such a scale of assessments of the United Nations as may be adopted from time to time by the General Assembly, adjusted so as to ensure that no party contributes less than 0.01 per cent of the total, that no one contribution exceeds 22 per cent of the total and that no contribution from a least developed country party exceeds 0.01 per cent of the total;
- (b) The 60 per cent of the unearmarked contributions made each year by the Government hosting the Convention secretariat;
- (c) The remaining 40 per cent of the unearmarked contributions made each year by the Government hosting the Convention secretariat, which will be prioritized for the purposes set out in rule 4, paragraph 3 (b);
- (d) Contributions made each year by parties in addition to those made pursuant to paragraphs (a)–(c);

- (e) Contributions from States not parties to the Convention, as well as governmental, intergovernmental and non-governmental organizations and other sources;
 - (f) The uncommitted balance of income received from previous financial periods;
 - (g) Miscellaneous income.
- 2. The Conference of the Parties shall, in adopting the indicative scale of contributions referred to in rule 5, paragraph 1 (a), make adjustments to take account of contributions of parties that are not members of the United Nations, as well as those of regional economic integration organizations that are parties.
- 3. In respect of contributions made pursuant to rule 5, paragraph 1 (a):
- (a) Contributions for each calendar year are expected by 1 January of that year and should be paid promptly and in full. Parties should be notified of the amount of their contributions for a given year by 15 October of the previous year;
- (b) Each party shall, as far in advance as possible of the date due for the contribution, inform the head of the secretariat of the contribution it intends to make and of the projected timing of that contribution:
- (c) If the contributions of any parties have not been received by 31 December of the relevant year, the head of the secretariat shall write to those parties to impress upon them the importance of paying their respective outstanding contributions for prior periods and shall report to the Conference of the Parties at its next meeting on the consultations with such parties;
- (d) If the contributions of any party have not been received after two or more years, the head of the secretariat shall jointly decide with any party who has outstanding contributions to develop a payment schedule to permit such party to pay all outstanding contributions within six years, depending on the financial circumstances of the party, and to pay future contributions promptly. The head of the secretariat shall report to the Bureau and to the Conference of the Parties at their next meetings on progress under any such schedule;
- (e) If a payment schedule is not jointly decided or respected, the Conference of the Parties will decide on appropriate measures, taking into account the specific needs and the special circumstances of [developing countries, particularly] least developed countries or small island developing States;
- (f) Given the importance of the full and effective participation of developing country parties, in particular least developed countries and small island developing States, and parties with economies in transition, the head of the secretariat shall remind parties of the need for contributions to the Special Trust Fund at least six months prior to each ordinary meeting of the Conference of the Parties, reflecting on the financial need, and urge parties in a position to do so to ensure that any contributions are paid at least three months before the meeting.
- 4. Contributions made pursuant to rule 5, paragraph 1 (d) and (e), shall be used in accordance with such terms and conditions, consistent with the objectives of the Convention and the Financial Regulations and Rules of the United Nations, as may be agreed between the head of the secretariat and the contributors.
- 5. Contributions made pursuant to rule 5, paragraph 1 (a), from States and regional economic integration organizations that become parties to the Convention after the beginning of a financial period shall be made pro rata temporis for the balance of that financial period. Consequent adjustments shall be made at the end of each financial period for other parties.
- 6. Notwithstanding rule 4, paragraph 3, the specific trust fund shall be open to contributions from signatories, parties and non-parties to the Convention with capacity to do so, as well as from the private sector, including industry, foundations, other non-governmental organizations and other stakeholders.
- 7. All contributions shall be paid in United States dollars or the equivalent in a convertible currency. They shall be paid into a bank account to be designated by the Executive Director of the United Nations Environment Programme in consultation with the head of the secretariat. In conversion into United States dollars, the United Nations operational rate of exchange shall be used.
- 8. The head of the secretariat shall acknowledge promptly the receipt of all pledges and contributions and shall inform the parties by publishing on the Convention website up-to-date information on the status of pledges and payments of contributions.

9. Contributions not immediately required shall be invested in accordance with applicable United Nations rules at the discretion of the Executive Director of the United Nations Environment Programme, in consultation with the head of the secretariat. In case both are not in agreement the Executive Director shall decide the further course of action. The resulting income shall be credited to the relevant Convention trust fund.

Accounts and audit

Rule 6

- 1. The accounts and financial management of all funds governed by the present rules shall be subject to the internal and external audit process of the United Nations.
- 2. An interim statement of accounts for the financial period shall be provided to the Conference of the Parties, and a final audited statement of accounts for the full financial period shall be provided to the Conference of the Parties as soon as possible after the accounts for the financial period are closed.
- 3. The Conference of the Parties shall be informed of any relevant remarks in the reports of the United Nations Board of Auditors on financial statements of the United Nations Environment Programme and remarks in reports resulting from external audits.

Administrative support costs

Rule 7

The Conference of the Parties shall reimburse the United Nations Environment Programme for the services provided to the Conference of the Parties, its subsidiary bodies and the Convention secretariat from the funds referred to in rule 4, paragraphs 1, 3 and 5, on such terms as may from time to time be agreed upon between the Conference of the Parties and the United Nations Environment Programme or, in the absence of such agreement, in accordance with the general policy of the United Nations.

Amendments

Rule 8

Any amendment to the present rules shall be adopted by the Conference of the Parties by consensus.

Annex to the financial rules

Procedure for the allocation of funding from the Special Trust Fund for facilitating the participation of parties in meetings of the Conference of the Parties

- 1. The procedure for facilitating the participation of eligible delegates in meetings under the Convention should aim at the full and active participation of developing country parties, in particular least developed countries and small island developing States, and parties with economies in transition in the activities of the Convention to broaden the scope of experiences and information available to Convention parties and encourage the implementation of the Convention at the local, national, regional and international levels.
- 2. [The procedure should give [priority][special] attention to least developed countries and small island developing States and thereafter aim at ensuring adequate representation of all eligible parties. It should continue to be guided by established United Nations practice.]
- 3. The secretariat should notify parties as soon as possible, and preferably six months in advance, of the dates and venues of meetings of the Conference of the Parties.
- 4. Following the dispatch of a notification that a meeting will take place, eligible parties should be invited to inform the secretariat, through official channels of communication, as soon as possible and no later than three months before the meeting, whether funding is requested.
- 5. Based on the availability of financial resources and the number of requests received, the head of the secretariat shall prepare a list of sponsored delegates. The list shall be established in accordance with paragraphs 1 and 2 above with a view to ensuring adequate geographical representation of eligible regions, [with [priority][special] attention given to least developed countries and small island developing States].

- 6. The secretariat should, four weeks in advance of the meeting, notify eligible countries that will not be sponsored, inviting them to seek other alternative sources of funding.
- 7. The head of the secretariat is invited to liaise with the Executive Director of the United Nations Environment Programme with a view to ensuring a waiver of the programme support costs on contributions to the Special Trust Fund for the participation of representatives from developing countries and countries with economies in transition, with the understanding that the additional money secured will be used to enhance the representation of eligible parties.

MC-1/11: Secretariat

The Conference of the Parties,

Noting that a secretariat has been established pursuant to paragraph 1 of article 24 of the Convention,

Recalling that paragraph 3 of article 24 of the Convention designates the Executive Director of the United Nations Environment Programme to perform the secretariat functions for the Convention,

Welcoming the offer of the Government of Switzerland to host the secretariat in Geneva and an annual host country contribution of 1 million Swiss francs,

- 1. Decides that 60 per cent of the host country contribution will be allocated to the General Trust Fund and 40 per cent will be allocated to the Special Trust Fund to support developing country delegate travel;
- 2. Requests the Executive Director of the United Nations Environment Programme to perform the secretariat functions initially through a secretariat of the Minamata Convention located in Geneva;
- 3. *Decides* to review at its second meeting the organizational arrangements, including location and the host country contribution, in accordance with the spirit of the offer of the Government of Switzerland to host the permanent secretariat;⁶
- 4. *Requests* that, in the interim, the secretariat continue to cooperate and coordinate, as appropriate, with other relevant actors, including the secretariat of the Basel, Rotterdam and Stockholm conventions and the relevant units of the United Nations Environment Programme in order to make full use of relevant experience and expertise.

MC-1/12: Formats to be used in registering for an exemption from the phase-out dates listed in Annex A and Annex B and for the register of exemptions

The Conference of the Parties

- 1. *Adopts* the formats for registering for an exemption pursuant to paragraphs 1 and 2 of article 6, as set out in the annex to the present decision;
- 2. Also adopts the formats for the register of exemptions pursuant to paragraphs 3 and 4 of article 6, as set out in the annex to the present decision;
- 3. *Requests* the secretariat to make available to States and regional economic integration organizations the above-mentioned formats for registering for an exemption;
- 4. *Instructs* the secretariat to establish the register of exemptions as per the above-mentioned formats, maintain the register and make it available to the public.

⁶ See UNEP/MC/COP.1/INF/8.

Annex to decision MC-1/12

Proposed format for the registration of exemptions for the products and processes listed in Part I of Annexes A and B to the Minamata Convention

Annex A: Mercury-added products

REGISTRATION OF EXEMPTION FOR ARTICLE 4

PARTY:

The secretariat of the Minamata Convention is hereby notified of the registration of the following exemption pursuant to paragraph 1 of article 6 of the Convention. No exemption is required for products excluded from Annex A.

Mercury added products, as listed $\overline{\text{in part I}}$ of annex A

Indicate the category or subcategory for which the exemption is being registered, and whether it is for manufacture, import and/or export Duration of exemption (if less than five years past the phase-out date)

Batteries, except for button zinc silver oxide batteries with a mercury content < 2% and button zinc air batteries with a mercury content < 2%

Switches and relays, except very high accuracy capacitance and loss measurement bridges and high frequency radio frequency switches and relays in monitoring and control instruments with a maximum mercury content of 20 mg per bridge, switch or relay

Compact fluorescent lamps (CFLs) for general lighting purposes that are ≤ 30 watts with a mercury content exceeding 5 mg per lamp burner

Linear fluorescent lamps (LFLs) for general lighting purposes:

- (a) Triband phosphor < 60 watts with a mercury content exceeding 5 mg per lamp;
- (b) Halophosphate phosphor \leq 40 watts with a mercury content exceeding 10 mg per lamp High pressure mercury vapour lamps (HPMV) for general lighting purposes

Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for electronic displays:

- (a) Short length (\leq 500 mm) with mercury content exceeding 3.5 mg per lamp
- (b) Medium length (> 500 mm and $\leq 1,500 \text{ mm}$) with mercury content exceeding 5 mg per lamp
- (c) Long length (> 1,500 mm) with mercury content exceeding 13 mg per lamp

REGISTRATION OF EXEMPTION FOR ARTICLE 4

Cosmetics (with mercury content above 1ppm), including skin lightening soaps and creams, and not including eye area cosmetics where mercury is used as a preservative and no effective and safe substitute preservatives are available⁷

Pesticides, biocides and topical antiseptics

The following non-electronic measuring devices except non-electronic measuring devices installed in large-scale equipment or those used for high-precision measurement, where no suitable mercury-free alternative is available:

- (a) Barometers;
- (b) Hygrometers;
- (c) Manometers;
- (d) Thermometers;
- (e) Sphygmomanometers.

Please attach the explanatory statement on the need for an exemption, one statement per individual product category listed in part I of annex A.

As part of, or in addition to, the explanation of the need for the exemption, a registering Party may include, as appropriate, the following information:

- Any timetable or plan of action to phase out the import, export, or manufacture or to adjust
 manufacturing specifications to comply with the mercury concentrations for products set out in Annex
 A:
- Information on the level of stocks of the product available nationally.

THIS NOTIFICATION IS SUBMITTED BY:

Job title:

Institution/department:

Address:

Telephone: Fax: E-mail address: Contact name: Date: (dd/mm/yyyy)

PLEASE RETURN THE COMPLETED FORM TO:

Secretariat of the Minamata Convention on Mercury United Nations Environment Programme (UNEP)

International Environment House

11-13, Chemin des Anémones, CH-1219 Châtelaine,

Geneva, Switzerland

Fax: +41 22 797 3460

Email: mercury.chemicals@unep.org

⁷ The intention is not to cover cosmetics, soaps or creams with trace contaminants of mercury.

Annex B: Processes that use mercury

REGISTRATION OF EXEMPTION FOR ARTICLE 5

PARTY:

The secretariat of the Minamata Convention is hereby notified of the registration of the following exemption pursuant to paragraph 1 of article 6 of the Convention.

Manufacturing processes using mercury or mercury compounds set out in part I of Annex B

Indicate the category or subcategory for which the exemption is registered. Duration of exemption (if less than five years past the phase-out date)

Chlor-alkali production
Acetaldehyde production in
which mercury or mercury
compounds are used as a
catalyst

Please attach an explanatory statement on the need for the exemption, one statement per process category. As part of, or in addition to, the explanation of the need for the exemption, the registering Party may include, as appropriate, the following information:

- Any timetable or plan of action to phase out the use of mercury in facilities; and
- Identification of the facilities for which an exemption is being registered, including the capacity
 of the facilities and the expected annual use of mercury by the facilities.

THIS NOTIFICATION IS SUBMITTED BY:

Job title:

Institution/department

.

Address:

Telephone: Fax: E-mail address: Contact name: Date: (dd/mm/yyyy)

PLEASE RETURN THE COMPLETED FORM TO:

Secretariat of the Minamata Convention on Mercury United Nations Environment Programme (UNEP)

International Environment House

11–13, Chemin des Anémones, CH–1219 Châtelaine, Geneva, Switzerland

Fax: +41 22 797 3460

Email: mercury.chemicals@unep.org

Proposed format for the register of exemptions from the phase-out dates listed in Part I of Annex A to the Minamata Convention on Mercury

Party

Indicate the specific category/subcategory for which the exemption is registered and whether the exemption is for manufacture, import and/or export.

Explanation for the exemption
As provided (this would be a
hyperlink to the statement as
provided by the Party)

Expiry date for the exemption^a

Proposed format for the register of exemptions from the phase-out dates listed in Part I of Annex B to the Minamata Convention on Mercury

Party

Specific category/subcategory for which an exemption is registered

Explanation for the exemption
As provided (this would then be a
hyperlink to the statement as
provided by the Party)

Expiry date for the exemption^a

^a Unless otherwise indicated by the Party, all exemptions expire five years after the relevant phase-out date listed in Part I of Annex A.

^a Unless otherwise indicated by the Party, all exemptions expire five years after the relevant phase-out date listed in Part I of Annex B.

MC-1/13: Guidance on the preparation of national action plans for artisanal and small-scale gold mining

The Conference of the Parties

- 1. Agrees to the use of the guidance on the preparation of national action plans by parties addressing the issue of artisanal and small-scale gold mining that is more than insignificant;⁸
- 2. *Welcomes* the work of the World Health Organization on guidance on the development of public health strategies for artisanal and small-scale gold mining.

MC-1/14: Mercury emissions related to the open burning of waste

The Conference of the Parties

- 1. *Notes* the report on mercury emissions related to the open burning of waste;⁹
- 2. *Recognizes* that open burning may be a significant source of mercury emissions that has not been quantified;
- 3. Also recognizes that the guidance on best available techniques and best environment practices states that open burning of waste is considered bad environmental practice and should be discouraged;
- 4. *Invites* parties and other interested entities and organizations to submit to the secretariat information on mercury emissions from open burning of waste;
- 5. Requests the secretariat to continue to compile information on mercury emissions from the open burning of waste, particularly from developing countries and countries with economies in transition, including information from inventories and Minamata initial assessments, emission factors and real measurements of emissions submitted by parties, and any relevant information developed by the conferences of the parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal and the Stockholm Convention on Persistent Organic Pollutants, and to submit that information to the Conference of the Parties for its consideration of the need for further action at its second meeting.

MC-1/15: Programme of work of the secretariat and proposed budget for the biennium 2018–2019

The Conference of the Parties,

Taking note of its decision MC-1/11 pertaining to the arrangements for the functions of the secretariat and the location of the secretariat,

I

General Trust Fund for the Minamata Convention on Mercury

- 1. *Takes note* of the programme of work for the secretariat for the biennium 2018–2019 as contained in the note by the secretariat on the programme of work of the secretariat and budget for the period 2018–2019 and the addenda thereto;¹⁰
- 2. Approves the programme budget for the Minamata Convention for the biennium 2018–2019 of 3,916,524 United States dollars for 2018 and 3,843,074 United States dollars for 2019 for the purposes set out in table 1 of the present decision;
- 3. *Authorizes* the Executive Secretary of the Minamata Convention to make commitments in an amount up to the approved operational budget, drawing upon available cash resources;
- 4. *Decides* to begin to build the working capital reserve that is to reach 15 per cent by 2021 of the annual average of a biennial operational budget, and set 7.5 per cent as the target for the biennium 2018–2019;
- 5. Welcomes the annual contribution by Switzerland, the host country of the secretariat, of 1 million Swiss francs;

⁸ UNEP/MC/COP.1/17, annex II.

⁹ UNEP/MC/COP.1/19, annex.

 $^{^{10}}$ UNEP/MC/COP.1/21, UNEP/MC/COP.1/21.Add.1, UNEP/MC/COP.1/21/Add.2, UNEP/MC/COP.1/21/ADD.3/Rev.1, UNEP/MC/COP.1/21/Add.4.

- 6. Notes that the host country contribution by Switzerland of 1 million Swiss francs will be apportioned 60 per cent to the General Trust Fund and 40 per cent to the Special Trust Fund for 2018, 2019 and thereafter;
- 7. Adopts the indicative scale of assessments for the apportionment of expenses for the biennium 2018–2019 set out in table 2 of the present decision and authorizes the Executive Secretary, consistent with the Financial Regulations and Rules of the United Nations, to adjust the scale to include all parties for which the Convention enters into force before 1 January 2018 for 2018 and before 1 January 2019 for 2019;
- 8. *Recalls* that contributions to the Minamata Convention General Trust Fund are due by or on 1 January of the year for which those contributions have been budgeted, and requests parties to pay their contributions promptly to enable the secretariat to commence its work immediately;
- 9. *Approves* the indicative staffing table for the secretariat for the biennium 2018–2019 used for costing purposes to set the overall budget, which is set out in table 3 of the present decision;

II

Special Trust Fund of the Minamata Convention

- 10. Agrees to the funding estimates included in table 1 of the present decision for activities under the Convention to be financed from the Special Trust Fund in the amount of 3,192,250 United States dollars for 2018 and 3,565,150 United States dollars for 2019;
- 11. *Requests* parties and invites non-parties to the Convention and others in a position to do so, to contribute to the Special Trust Fund so as to enable support for capacity-building and technical assistance activities of the Minamata Convention secretariat in accordance with article 14;
- 12. *Requests* parties and invites non-parties to the Convention and others in a position to do so, to contribute to the Special Trust Fund so as to support the participation of representatives of developing countries that are parties to the Convention in the meetings of the Conference of the Parties and its subsidiary bodies;

Ш

Specific trust fund of the Minamata Convention

- 13. *Recalls* decision MC-1/6 on the specific international programme¹¹ and reiterates the request to the Executive Director of the United Nations Environment Programme to establish a trust fund for the specific international programme;
- 14. *Invites* parties and non-parties to the Convention and others in a position to do so, to contribute to the specific trust fund so as to enable support for capacity-building and technical assistance in accordance with article 13;

IV

Current biennium and preparations for the next biennium

- 15. Requests the Executive Secretary at the second meeting of the Conference of the Parties to provide an update on the programme of work and implementation and, where relevant, cost estimates for actions that have budgetary implications that were not foreseen in the first programme of work but are included in proposed draft decisions, before the adoption of those decisions by the Conference of the Parties, and therefore have budgetary implications in the current biennium;
- 16. Requests the Executive Secretary to prepare a budget for the biennium 2020–2021, for consideration by the Conference of the Parties at its third meeting, in 2019, explaining the key principles, assumptions and programmatic strategy on which the budget is based and presenting expenditures for the that biennium in a programmatic format and by budget code line;
- 17. *Notes* the need to facilitate priority setting for the programme of work of the secretariat by providing the parties with timely information on the financial consequences of various options and, to that end, requests the Executive Secretary to include in the proposed operational budget for the biennium 2020–2021 two alternative funding scenarios that are based on:

¹¹ UNEP/MC/COP.1/9.

- (a) The Executive Secretary's assessment of the required changes in the operational budget, to finance all the proposals before the Conference of the Parties that have budgetary implications;
 - (b) Maintaining the operational budget at the 2018–2019 level in nominal terms;
- 18. *Requests* the Executive Secretary at the meetings of the Conference of the Parties to provide, where relevant, cost estimates for actions that have budgetary implications that are not foreseen in the draft programme of work but are included in proposed draft decisions before the adoption of those decisions by the Conference of the Parties.

Table 1
List of proposed activities included in the programme of work for the period 2018–2019 of the Minamata Convention on Mercury and overview of resources required for proposed activities

Activity number	Headings and activity description			
	1. Conferences and meetings			
1	Second meeting of the Conference of the Parties			
2	Third meeting of the Conference of the Parties			
3	Bureau of the Conference of the Parties			
4	Implementation and compliance committee			
	2. Capacity-building and technical assistance			
5	Capacity-building and technical assistance programme of the Minamata Convention			
	3. Scientific and technical activities			
6	Scientific support to the States parties to the Minamata Convention			
7	Effectiveness evaluation and the global monitoring plan			
8	National reporting under the Minamata Convention			
	4. Knowledge and information management, and outreach			
9	Publications			
10	Communication, outreach and public awareness			
	5. Overall management			
11	Executive direction and management			
12	International cooperation and coordination			
13	Financial resources and mechanism			
	6. Legal and policy activities			
14	Legal and policy activities			
	7. Office maintenance and services			
15	Office maintenance and services			
16	Information technology services			

Overview of resources required for proposed activities included in the programme of work of the Minamata Convention for both the General Trust Fund and the Special Trust Fund for the biennium 2018-2019

		2018	2018 2019					
	_	General Trust Fund	Special Trust Fund	General Trust Fund	Special Trust Fund			
A.	Conferences and meetings							
1.	Second meeting of the Conference of the Parties							
	Second meeting	840 000	640 000	_	_			
	Regional preparatory meetings	-	535 000		_			
	Intersessional time-based expert groups mandated by the Conference of the Parties at its first and second meetings	105 000	-	105 000	_			
	Subtotal	945 000	1 175 000	105 000	_			
2.	Third meeting of the Conference of the Parties							
	Third meeting	-	-	840 000	640 000			
	Regional preparatory meetings	_	_	_	535 000			
	Subtotal	_	_	840 000	1 175 000			
3.	Bureau of the Conference of the Parties							
	Meetings of the Bureau	25 000	_	25 000	_			
	Subtotal	25 000		25 000	-			
4.	Implementation and compliance committee							
	Meeting of the committee	30 000		30 000	_			
	Subtotal	30 000		30 000	_			
	Total (A)	1 000 000	1 175 000	1 000 000	1 175 000			
B.	Capacity-building and technical assistance							
5.	Capacity-building and technical assistance programme of the Minamata Convention							
	Cross-cutting activities	_	300 000	_	360 000			
	Impact assessment	_		_	_			
	Tools and methodologies	=	50 000	_	60 000			
	Needs assessment	=		_	_			
	Specific capacity development activities	=	500 000	_	600 000			
	Capacity-building activities on request	_	800 000		960 000			
	Total (B)	_	1 650 000	_	1 980 000			
C.	Scientific and technical activities							
6.	Scientific support to the States parties to the Minan	nata Convention						
	Scientific support to the States parties to the Convention	_						
	Subtotal				-			
7.	Effectiveness evaluation and global monitoring plan	1						
	Effectiveness evaluation and global monitoring plan	_			_			
	Subtotal	_	_		_			
8.	National reporting under the Minamata Convention							
	National reporting under the Minamata Convention	30 000	_	30 000	_			
	Subtotal	30 000		30 000	=			
	Total (C)	30 000	_	30 000				
D.	Knowledge and information management, and outr	each						
9.	Publications							
	Publications	30 000	-	30 000	-			
	Subtotal	30 000	_	30 000	-			

	2018 2019)	
	General Trust Fund	Special Trust Fund	General Trust Fund	Specia Trust Fund
10. Communication, outreach and public awareness				
Communication, outreach and public awareness	100 000	_	50 000	-
Subtotal	100 000	-	50 000	-
Total (D)	130 000	-	80 000	-
E. Overall management				
11. Executive direction and management				
Overall management	1 930 950	-	1 930 950	
Staff travel	150 000	_	150 000	
Subtotal	2 080 950	-	2 080 950	
12. International cooperation and coordination				
Cooperation on the broader sustainable development and environment agenda	_	_	_	
Cooperation within the chemicals and waste cluster	-	-	-	
Other cooperation and coordination	_	_	_	
Subtotal	-	_	_	
13. Financial resources and mechanism				
Financial mechanism ^a	-	-	-	
Financial resources	_	_	_	
Subtotal	_	_	_	
Total (E)	2 080 950	_	2 080 950	
F. Legal and policy activities				
14. Legal and policy activities				
Legal and policy activities	-	_	_	
Total (F)	-	-	_	,
G. Office maintenance and services				
15. Office maintenance and services				
Office maintenance and services	160 000	_	160 000	
Subtotal	160 000	-	160 000	,
16. Information technology services				
Information technology services	65 000	_	50 000	
Subtotal	65 000	_	50 000	
Total (G)	225 000	_	210 000	
Resources required for all activities				
Total (A to G), excluding programme support costs	3 465 950	2 825 000	3 400 950	3 155 00
Programme support costs	450 574	367 250	442 124	410 15
Total (A to G), including programme support costs	3 916 524	3 192 250	3 843 074	3 565 150
Total resources required, by year	7 108 77	4	7 408 22	4

^a It is envisaged that the specific international programme, which forms part of the financial mechanism of the Convention, will have its own budget and trust fund.

Table 2
Overview of the indicative scale of assessment and annual assessed contributions for the secretariat of the Minamata Convention on Mercury (in United States dollars)

Numeration			United Nations Minamata Convent scale (%) indicative scale (9		
Total	Group	Africa			
1	1	Benin	0.003	0.010	333
2	2	Botswana	0.014	0.022	722
3	3	Burkina Faso	0.004	0.010	333
4	4	Chad	0.001	0.010	333
5	5	Djibouti	0.001	0.010	333
6	6	Gabon	0.017	0.026	876
7	7	Gambia	0.001	0.010	333
8	8	Ghana	0.016	0.025	825
9	9	Guinea	0.002	0.010	333
10	10	Lesotho	0.001	0.010	333
11	11	Madagascar	0.003	0.010	333
12	12	Mali	0.003	0.010	333
13	13	Mauritania	0.002	0.010	333
14	14	Mauritius	0.012	0.019	618
15	15	Namibia	0.010	0.015	515
16	16	Niger	0.002	0.010	333
17	17	Rwanda	0.002	0.010	333
18	18	Senegal	0.005	0.010	333
19	19	Seychelles	0.001	0.010	333
20	20	Sierra Leone	0.001	0.010	333
21	21	Swaziland	0.001	0.010	333
22	22	Togo	0.001	0.010	333
23	23	Zambia	0.007	0.010	333
Total	Group	Asia-Pacific			
24	1	Afghanistan	0.006	0.010	333
25	2	China	7.921	12.264	408 252
26	3	Indonesia	0.504	0.780	25 976
27	4	Iran (Islamic Republic of)	0.471	0.729	24 276
28	5	Japan	9.680	14.988	498 911
29	6	Jordan	0.020	0.031	1 031
30	7	Kiribati	0.001	0.010	333
31	8	Kuwait	0.285	0.441	14 689
32	9	Lao People's Democratic	0.003	0.010	333
		Republic			
33	10	Mongolia	0.005	0.010	333
34	11	Palau	0.001	0.010	333
35	12	Samoa	0.001	0.010	333
36	13	Singapore	0.447	0.692	23 039
37	14	Sri Lanka	0.031	0.048	1 598
38	15	Syrian Arab Republic	0.024	0.037	1 237
39	16	Thailand	0.291	0.451	14 998
40					
41	17	United Arab Emirates	0.604	0.935	31 130
		United Arab Emirates Viet Nam	0.604 0.058	0.935 0.090	31 130 2 989
Total	17		0.058		
Total 42	17 18	Viet Nam	0.058		
	17 18 Group	Viet Nam Central and Eastern Europe	0.058	0.090	2 989
42	17 18 Group	Viet Nam Central and Eastern Europe Bulgaria	0.058 e 0.045	0.090	2 989
42 43	17 18 Group 1 2	Viet Nam Central and Eastern Europe Bulgaria Czechia	0.058 e 0.045 0.344	0.090 0.070 0.533	2 989 2 319 17 730
42 43 44	17 18 Group 1 2 3	Viet Nam Central and Eastern Europe Bulgaria Czechia Croatia	0.058 e 0.045 0.344 0.099	0.090 0.070 0.533 0.153	2 989 2 319 17 730 5 103
42 43 44 45	17 18 Group 1 2 3 4	Viet Nam Central and Eastern Europe Bulgaria Czechia Croatia Estonia	0.058 e 0.045 0.344 0.099 0.038	0.090 0.070 0.533 0.153 0.059	2 989 2 319 17 730 5 103 1 949
42 43 44 45 46	17 18 Group 1 2 3 4 5	Viet Nam Central and Eastern Europe Bulgaria Czechia Croatia Estonia Hungary	0.058 e 0.045 0.344 0.099 0.038 0.161	0.090 0.070 0.533 0.153 0.059 0.249	2 989 2 319 17 730 5 103 1 949 8 298

Nume	ration		United Nations scale (%)	Minamata Convention indicative scale (%)	2018–2019
50	9	Slovakia	0.160	0.248	8 246
51	10	Slovenia	0.084	0.130	4 329
Total	Group	Western Europe and other S	tates		
52	1	Austria	0.720	1.115	37 109
53	2	Canada	2.921	4.523	150 550
54	3	Denmark	0.584	0.904	30 100
55	4	Finland	0.456	0.706	23 502
56	5	France	4.859	7.523	250 435
57	6	European Union	2.500	2.500	83 219
58	7	Germany	6.389	9.892	329 292
59	8	Liechtenstein	0.007	0.011	361
60	9	Luxembourg	0.064	0.099	3 299
61	10	Malta	0.016	0.025	825
62	11	Monaco	0.010	0.015	515
63	12	Netherlands	1.482	2.295	76 383
64	13	Norway	0.849	1.315	43 758
65	14	Sweden	0.956	1.480	49 273
66	15	Switzerland	1.140	1.765	58 756
67	16	United States of America	22.000	22.000	732 330
Total	Group	Latin America and the Carib	bean		
68	1	Antigua and Barbuda	0.002	0.010	333
69	2	Argentina	0.892	1.381	45 974
70	3	Bolivia (Plurinational	0.012	0.019	618
		State of)			
71	4	Brazil	3.823	5.919	197 039
72	5	Costa Rica	0.047	0.073	2 422
73	6	Ecuador	0.067	0.104	3 453
74	7	El Salvador	0.014	0.022	722
75	8	Guyana	0.002	0.010	333
76	9	Honduras	0.008	0.010	333
77	10	Jamaica	0.009	0.010	333
78	11	Mexico	1.435	2.222	73 960
79	12	Nicaragua	0.004	0.010	333
80	13	Panama	0.034	0.053	1 753
81	14	Peru	0.136	0.211	7 009
82	15	Saint Kitts and Nevis	0.001	0.010	333
83	16	Uruguay	0.079	0.122	4 072
				100.00	3 328 775

 $\label{thm:convention} \begin{tabular}{l} Table 3 \\ \hline \textbf{Indicative staffing requirements for the Minamata Convention secretariat in Geneva} \\ \hline \textbf{(United States dollars)} \\ \hline \end{tabular}$

Minamata Convention Secretariat Geneva					
Staff posts	#	Geneva standard post costs	Total		
D-1 Executive Secretary	1.0	290 100	290 100		
P-5 Coordination and policy	1.0	257 150	257 150		
P-4 Science and technology	1.0	221 150	221 150		
P-4 Capacity-building and technical assistance	1.0	221 150	221 150		
P-3 Communication and knowledge management	1.0	182 900	182 900		
P-3 Legal/Programme Officer	1.0	182 900	182 900		
GS Programme assistance	4.0	143 900	575 600		
Total	10.0		1 930 950		

Note: In addition to the staff indicated above, the posts of one P-3 and one GS staff member will be funded from programme support costs.

MC-1/16: Guidance in relation to mercury emissions

The Conference of the Parties,

Recognizing the importance of the control of mercury emissions in achieving the objective of the Minamata Convention on Mercury,

Decides to adopt the guidance with regard to article 8, particularly with regard to paragraph 9 (a) and (b), on guidance on criteria that parties may develop pursuant to paragraph 2 (b) and on the methodology for preparing inventories of emissions, as put forward by the intergovernmental negotiating committee at its seventh session.¹²

MC-1/17: Guidance in relation to mercury releases

The Conference of the Parties,

Recognizing the importance of the control of mercury releases in achieving the objective of the Minamata Convention on Mercury,

Recognizing also the requirement for the Conference of the Parties to adopt, as soon as practicable, guidance on best available techniques and best environmental practices to control releases from relevant sources, and the methodology for preparing inventories of releases from such sources,

- 1. *Encourages* parties to identify relevant point sources at the national level pursuant to paragraphs 2 (b) and 3 of article 9 as soon as possible, and to submit information to the secretariat on the identified relevant sources;
- 2. *Requests* the secretariat to compile submissions from parties and provide such information to the Conference of the Parties at its second meeting.

MC-1/18: Draft guidelines on the interim storage of mercury and mercury compounds referred to in paragraph 3 of article 10

The Conference of the Parties,

Recognizing the need to assist parties in the environmentally sound storage of mercury other than waste mercury through the provision of guidelines,

- 1. Requests the secretariat to undertake further revision of the draft guidelines on the interim storage of mercury and mercury compounds referred to in paragraph 3 of article 10, 13 by:
- (a) Seeking technical input from relevant experts, including technical experts of the Basel Convention on the Transboundary Movement of Hazardous Wastes and Their Disposal, by 31 December 2017;
- (b) Amending the guidelines and publishing on the Minamata Convention website a revised draft version by 1 March 2018;
 - (c) Obtaining further comments from experts, parties and others, by 1 May 2018;
- (d) Submitting the revised guidelines to the Conference of the Parties to the Minamata Convention at its second meeting for further consideration and possible adoption;
- 2. *Encourages* the use of the draft guidelines¹⁴ in the interim and on a provisional basis, as appropriate.

MC-1/19: Mercury waste

The Conference of the Parties,

Welcoming with appreciation decision BC-12/4 of the Conference of the Parties to the Basel Convention on the Transboundary Movement of Hazardous Wastes and Their Disposal, on the technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with mercury,

¹² UNEP/MC/COP.1/23, annex II.

¹³ UNEP/MC/COP.1/25, annex.

¹⁴ Ibid.

Recalling article 11 of the Minamata Convention on Mercury, which requests parties to the Minamata Convention to take into account the guidelines referred to in the preceding paragraph,

- 1. *Establishes* an open-ended process to initiate work on the relevant thresholds called for under article 11, with the following terms of reference:
- (a) To identify the types of waste that fall within the categories specified in paragraph 2 of article 11, and provide related information;
- (b) To prioritize the types of waste identified in paragraph 1 (a) of the present decision that are most relevant to the establishment of waste thresholds, mindful of the objective of the Convention;
- (c) To identify possible approaches to establishing any needed thresholds for the waste prioritized in paragraph 1 (b) of the present decision;
 - 2. *Requests* the secretariat to:
- (a) Circulate an open call to all parties, non-parties and other relevant stakeholders for the nomination, by 1 November 2017, of experts to participate in the process, including a request for a brief description of their relevant expertise;
 - (b) Call for submissions by the experts related to paragraph 1 (a) by 30 December 2017;
 - (c) Prepare an organized compilation of the information received under paragraph 2 (b);
- (d) Circulate the compilation to experts by 15 February 2018, with a request for input by 15 April 2018, on paragraph 1 (b), including the basis for such prioritization;
- (e) Consolidate the input received from the experts in response to paragraph 2 (*d*) by 15 May 2018, and provide the consolidation to the experts, with a request for the submission of possible approaches consistent with paragraph 1 (c) above, by 15 July 2018;
- (f) Report to the Conference of the Parties at its second meeting on the outcomes to date of the open-ended process;
- 3. *Decides* to review at its second meeting the progress achieved by the open-ended process and decide on further action taking into account the most effective modalities for determining relevant threshold(s).

MC-1/20: Guidance on the management of contaminated sites

The Conference of the Parties

Decides to develop draft guidance on managing contaminated sites in line with the programme of work as set out in the road map provided as annex I to the present decision, and building on the draft structure and content provided in annex II to the present decision.

Annex I to decision MC-1/20

Draft road map for the preparation of the guidance document on the management of contaminated sites

Activity	Time frame End date
The Conference of the Parties at its first meeting establishes a process to prepare a guidance document on the management of contaminated sites as called for in paragraph 3 of article 12 of the Minamata Convention for consideration and adoption by the Conference of the Parties at a future meeting. The elements of this process are set out in the road map below.	September 2017
The Conference of the Parties recognizes the complexity of the management of contaminated sites, as well as the technical requirements of developing draft guidance; however, it also recognizes that relevant guidance has been prepared in a range of other forums that can be drawn on in developing draft guidance. The Conference of the Parties therefore recognizes the need for the contribution of experts in this area and calls for Governments and others to nominate interested experts to participate in the work.	September 2017
Nominations of experts are provided to the secretariat to be included in a working group of experts to collaborate electronically.	December 2017

The secretariat, drawing on previously submitted information and work undertaken in other forums, and using the outline of the structure and content of the guidance agreed by the Conference of the Parties as a basis, prepares an initial draft guidance on contaminated sites and circulates it electronically to the experts.

February 2018

The experts review the initial draft proposals and provide comments to the secretariat electronically. Teleconferences or webinars may be used to discuss the draft guidance as required.

April 2018

The secretariat prepares revised versions of the draft guidance and circulates it to the experts for consideration and further electronic discussion.

May 2018

The experts consider the revised proposal and prepare recommendations for the Conference of the Parties at its second meeting, including any recommendations for new or additional work to be undertaken. July 2018

The secretariat makes the draft guidance and any recommendations available to the Conference of the Parties at its second meeting for its consideration and further recommendations.

November 2018

Annex II to decision MC-1/20

Outline of the structure and content of guidance on the management of contaminated sites

Guidance on the management of contaminated sites

A. Introduction

1. The introduction will provide general background information on the risks to both human health and the environment associated with mercury exposure. It will give information on the global use of mercury, with particular relevance to those uses that have resulted or are likely to result in contaminated sites (in particular artisanal gold mining, use in chlor-alkali production, industrial waste management, or sites that may be contaminated due to run-off from such sites). The introduction will also provide an overview of the obligations under the Minamata Convention on Mercury in relation to the management of contaminated sites, and highlight some existing relevant national policies.

B. Site identification and characterization

- 2. The section will set out mechanisms that countries can use to identify sites contaminated by mercury or mercury compounds, as well as techniques to characterize the contamination following the identification of a suspected contaminated site. The guidance will describe the steps that may be required in developing a national list of contaminated sites. Steps may include determination of the national level of mercury or mercury compound contamination that would result in a site being described as contaminated. The term "site" may also need to be defined, taking into account that areas affected by run-off from a primary site may be more affected. The guidance would then cover the mechanism at the national level to determine potentially contaminated sites. This may include a combination of a desk exercise gathering information on current or previous industrial or mining activities in which mercury or mercury compounds have been used or released, or the location of waste dumping area, as well as information gathered through observation of sites and local reporting.
- 3. Potentially contaminated sites identified through this mechanism can be further characterized through an assessment protocol. The guidance would also cover what such a protocol may encompass, noting that the protocol would need to be agreed at the national level. The assessment protocol may include site inspection to further determine the characteristics of the site (including topography, the possibility of run-off or contamination of local water sources, current usage of the site and evidence of previous uses). Detailed sampling of the air, soil and water at the site would be needed to further characterize the risks, and the guidance would include information on sampling information to best characterize the site, as well as a range of analytical methodologies that could be used to determine the level of mercury or mercury compounds present. Sampling of biota, for example fish, waterfowl and local mammals in areas affected by mercury contamination can give useful information, particularly on the risks to the local environment and risk to local populations through exposures through their

diet, and sampling of the local populations themselves may also be required. Description of the sampling techniques and analytical methodologies would be included in the guidance. The guidance may also include information on prioritization of activities, where an initial screening activity is used to determine the sites that are considered to be the highest risk (taking into consideration factors such as location close to population centres, possibility of contaminating ground water or river systems and the actual levels of mercury at the site).

C. Engaging the public

4. The need to engage the public is recognized as essential. The guidance will include information on setting up a public consultation process, including mechanisms for collecting and distributing information, involvement of the public and stakeholders in establishing commitments and a plan in relation to the assessment process and any possible remediation process, and methods of collecting feedback to assess public engagement and levels of satisfaction. The guidance will also include information on activities to raise public awareness and build capacity, particularly in relation to any requirements in relation to reducing exposure.

D. Human health and environmental risk assessments

5. The impact of the site relies on risk assessments for both human health and the environment. While the hazards of mercury are well-characterized and universal, the exposure resulting from the presence of mercury is site specific. The guidance will include some information on the hazards of mercury and mercury compounds, but will focus more on considerations of how the site characteristics may be associated with exposure for humans and the environment, and how such exposure can be assessed. It will then provide information on how to determine the risks associated with the site, including determination of where the risks are primarily to the environment, to human health or to both.

E. Options for managing the risks posed by contaminated sites

6. Following assessment of a contaminated site, national decisions would need to be taken on the most appropriate means of managing the site. The guidance will provide information on a range of options for managing the risks posed by contaminated sites. It will consider the need to protect humans and the environment throughout the risk management process, and will take into account the need for any actions to be conducted in an environmentally sound manner.

F. Evaluation of benefits and costs

7. It is recognized that identification, characterization, assessment and remediation of contaminated sites will incur costs; however, it is also recognized that the impact of mercury and mercury compounds on local populations and the environment also incurs costs. The guidance will provide information on assessing the costs and benefits of activities to address contaminated sites to the extent possible, recognizing that there will be variation between countries with respect to the costs of interventions.

G. Validation of outcomes

8. There is a need to validate the outcomes of any delivered activity in relation to contaminated sites, in particular to determine the effectiveness of any interventions, as well as to consider the need for any further activities. The guidance will include information on activities needed to validate the outcomes.

H. Cooperation in developing strategies and implementing activities for identifying, assessing, prioritizing, managing and, as appropriate, remediating contaminated sites

9. The section will set out possible strategies that may be taken up by parties that wish to cooperate on activities in relation to contaminated sites. The strategies may include information-sharing activities, identification of opportunities for joint assessment of sites, coordination of communication plans in relation to sites, and other cooperative activities as considered appropriate.

MC-1/21: Capacity-building, technical assistance and technology transfer for the Minamata Convention on Mercury

The Conference of the Parties,

Recalling United Nations Environment Assembly resolution 1/5 on chemicals and waste, in which the Environment Assembly invited parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal and the Stockholm Convention on Persistent Organic Pollutants and other stakeholders, including parties to the Minamata Convention on Mercury and stakeholders of the Strategic Approach to International Chemicals Management, to consider ways of promoting an effective and efficient network of regional centres to strengthen the regional delivery of technical assistance,

Recalling also United Nations Environment Assembly resolution 2/7 on the sound management of chemicals and waste, in which the Environment Assembly, inter alia, highlighted the role of the regional centres of the Basel and Stockholm conventions in assisting the regions in the implementation of those conventions, and in other relevant work relating to the multilateral environmental agreements in the chemicals and waste cluster in the countries they served;

Recalling further paragraph 2 of article 14 of the Minamata Convention, which provides that capacity-building and technical assistance for the implementation of the Minamata Convention may be delivered through regional, subregional and national arrangements, including existing regional and subregional centres, through other multilateral and bilateral means, and through partnerships, including partnerships involving the private sector;

Recognizing that some of the existing regional and subregional centres are already developing projects and activities regarding mercury issues and projects to deliver capacity-building and technical assistance;

Recognizing also the capacity-building and technical assistance delivered through other multilateral and bilateral means, and through partnerships including partnerships involving the private sector, which is continuously contributing to various mercury-related activities;

Requests the Minamata Convention secretariat, subject to the availability of resources, to collect information on the work undertaken by the existing regional, subregional and national arrangements in delivering capacity-building and technical assistance to assist parties in implementing their obligations under the Minamata Convention, and report thereon to the Conference of the Parties at its second meeting.

Annex II

Key take-home messages developed by the President of the Conference of the Parties to the Minamata Convention at its first meeting

High-level segment 28 and 29 September 2017

- 1. At its first meeting, the Conference of the Parties has agreed on the following very important key take-home messages:
- 2. Consideration of the impacts of the uses and emissions and releases of mercury must cover its entire life cycle, across all media and take into account cross-media impacts. The issue must be integrated into public health and environmental strategies at the local, national, regional and international levels, and embodied into the wider pollution control agenda.
- 3. We are aware that a crucial part of informing the public and authorities about the impact of mercury and of taking on the broader challenge of addressing its adverse effects is to engage and work hand-in-hand with stakeholders from every section of society. Positive implementation of the Convention can only be achieved with governance that is inclusive of all sectors and all stakeholders and that encourages interministerial and cross-sectoral cooperation.
- 4. We can best achieve the involvement of all stakeholders through the promotion of partnerships both with civil society and with the private sector. Civil society organizations enjoy close cooperation with local communities, which facilitates communication on how to deal with the adverse effects of mercury pollution and private enterprise often has access to innovative technologies and resources that can be drawn upon to further environmental protection. We acknowledge that partnerships are a crucial means to share the burden and to benefit from experience and expertise and must therefore be encouraged. Additionally, private enterprise must be encouraged to share in the responsibility for clean-up efforts and instituting best available techniques and best environmental practices.
- 5. We note that for many of the local and national activities involving mercury, there is an urgent need to enhance the visibility of and the guidance offered under the Minamata Convention and to provide information on the adverse effects of mercury as well as the benefits of adhering to the obligations under the Convention. This can only be achieved through high-level Government commitment and broad-scale education and awareness-raising programmes that target not only decision makers but also local authorities, individuals engaged in practices that use mercury and civil society.
- 6. At the same time, we note that the national policies, legislation and institutions that exist must be strengthened and, where they are lacking, they must be established such that the implementation of the Convention is supported with robust and long-term institutional frameworks. This includes putting in place legislation that prevents the diversion of mercury other than for allowed uses and that addresses the potential illegal traffic in mercury.
- 7. We know that chemicals in general, and mercury in particular, are addressed throughout many of the Sustainable Development Goals. Hence, focusing countries' efforts on integrating the sustainable development agenda into national development plans will help us to protect human health and the environment from the adverse effects of mercury.
- 8. As ministers and high-level representatives, we have exchanged very important information and experiences on existing practices at the national level that use mercury or from which mercury can be introduced into the environment, and we agree that to reduce or eliminate those uses we need to examine how to support communities currently engaged in such practices in moving to alternative activities. We also need to promote safe substitutes and examine the economic consequences of inaction at the local level. We are aware that artisanal and small-scale gold mining is one of the greatest concerns in terms of mercury contamination and has a strong regional and socioeconomic dimension affecting women and children and requiring cleaner technologies, alternative livelihoods, incentives for formalization of the informal sector and engagement in seeking appropriate solutions.
- 9. We agree that many countries lack the resources, both financial and technical, to implement their obligations under the Convention. Support to those in need is vital and must be addressed in a sustainable manner, including through capacity-building and technical assistance, to ensure the success of the Convention.

- 10. We concur that affordable and alternative technologies, including those with co-benefits, to avoid emissions and releases, need to be put in place, and subsidies could be envisaged to encourage and assist manufacturers to make the transition to best alternative technologies and best environmental practices. In addition, strict and stringent control and monitoring programmes for emissions and releases must be developed and instituted at the national level.
- 11. Specific national conditions and circumstances, such as those of small island developing States, must also be addressed with applicable solutions.

Annex III

Report of the Committee of the Whole

I. Introduction

- 1. At its 1st plenary session, on the afternoon of Sunday, 25 September 2017, the Conference of the Parties to the Minamata Convention on Mercury agreed to establish a committee of the whole to consider those issues that had not been completed during the first session of the first meeting of the Conference of the Parties under agenda items 5 and 6.
- 2. The Committee of the Whole was chaired by Mr. Fernando Lugris (Uruguay) with Ms. Nina Cromnier (Sweden) serving as rapporteur.

II. Matters for action by the Conference of the Parties at its first meeting (agenda item 5)

A. Matters stipulated under the Convention

1. The guidance referred to in paragraphs 8 (a) and 8 (b) of article 8

- 3. The Chair introduced the sub-item, recalling that the Conference of the Parties had discussed the matter in plenary and had adopted the draft guidance in relation to mercury emissions, as contained in annex II to document UNEP/MC/COP.1/7, but had referred the draft decision contained in annex I to the document to the Committee for its consideration.
- 4. One representative proposed an amendment to the draft decision, saying that the guidance on best available techniques and best environmental practices that had been developed did not reflect the kind of coal being used in the thermal power plants in his country; it was vital that the guidance cover the kind of coal being used in each country in order to be implementable and to properly address parties' concerns regarding mercury emissions. He requested that the draft decision contained in document UNEP/MC/COP.1/7 be amended to reflect his country's concern and provided text to that effect.
- 5. The Committee subsequently approved a draft decision on the guidance in relation to mercury emissions, for consideration and possible adoption by the Conference of the Parties.

2. The measures to give effect to the arrangements for the financial mechanism referred to in article 13

- 6. The representative of the secretariat introduced the sub-item, outlining the information set out in documents UNEP/MC/COP.1/8, on guidance to the Global Environment Facility (GEF), and UNEP/MC/COP.1/9 and UNEP/MC/COP.1/9/Add.1, on matters related to the specific international programme to support capacity-building and technical assistance. The guidance to GEF, she said, had been adopted on a provisional basis by the intergovernmental negotiating committee at its seventh session pending formal adoption by the Conference of the Parties. On the specific international programme, a number of issues related to the arrangements of the programme were yet to be agreed upon.
- 7. Following that introduction, the representative of GEF presented the report of GEF to the first meeting of the Conference of the Parties, on its work on mercury between July 2010 and June 2017, contained in document UNEP/MC/COP.1/INF/3. The report, she said, set out key institutional policy developments to operationalize the role of GEF as part of the financial mechanism of the Convention and outlined the support provided by GEF to countries in phasing out mercury.
- 8. In June 2013, the GEF Council had authorized funding for an early action pre-ratification programme for the Convention. The subsequent adoption of the Convention had made GEF part of the mechanism to support developing-country parties and parties with economies in transition in implementing their obligations under the Convention. In May 2014, the fifth Assembly of GEF had amended the GEF instrument to incorporate the Minamata Convention and to create a new funding window called the "chemicals and waste focal area". The Assembly had also approved the summary of negotiations on the sixth replenishment of the GEF Trust Fund, which had allocated \$141 million to the implementation of the Minamata Convention during the sixth replenishment period (GEF-6).
- 9. Between July 2010 and June 2017, 106 mercury-related projects and programmes had been approved with GEF financing totalling \$145 million. The enabling activities supported included

Minamata initial assessments and the development of national action plans for artisanal and small-scale gold mining. During the first three years of the GEF-6 period, 68 projects had been approved. On average, the portfolio had leveraged \$4 for every GEF dollar from co-financing. The projects were expected to remove 859 tons of mercury, which amounted to around 86 per cent of the corporate target for the GEF-6 period.

- 10. As at September 2017, out of the 94 countries eligible to access GEF resources according to the eligibility criteria accepted by the GEF Council in January 2015, 89 countries had received funding for enabling activities.
- 11. In conclusion, she said that GEF remained committed to its role as part of the financial mechanism of the Convention. The outcomes of the first meeting of the Conference of the Parties were very important in informing the future programming priorities and policy strategy of GEF, which looked forward to continuing to work with parties to make mercury history.
- 12. The representative of Brazil drew attention to a conference room paper submitted by the Group of Latin American and Caribbean Countries with the aim of operationalizing the specific international programme at the current meeting. He said that the two components of the financial mechanism, namely the GEF Trust Fund and the specific international programme, should be discussed together. The conference room paper, which was intended to support those discussions, contained proposed amendments to document UNEP/MC/COP.1/9, which it would be helpful to consider in detail in a contact group. He also drew attention to a related second conference room paper containing corresponding proposed changes to the financial rules contained in document UNEP/MC/COP.1/13.
- 13. The representative of the European Union and its member States drew attention to a conference room paper submitted by the European Union and its member States on the issue of the guidance to be provided to GEF. He said that, once the outstanding issues related to GEF guidance had been resolved, the Conference of the Parties should adopt, without delay, a brief stand-alone decision on guidance to GEF and forward it to the GEF Council as a replacement for the provisional guidance agreed upon by the intergovernmental negotiating committee. Regarding the specific international programme, the intergovernmental negotiating committee had prepared a draft stand-alone decision, but there were some important issues still to be resolved in that regard.
- 14. The representative of Argentina drew attention to a conference room paper submitted by the Group of Latin American and Caribbean Countries with the aim of institutionalizing, through the development of terms of reference, the work that had already been carried out by the Basel and Stockholm convention regional centres to build capacity and provide technical assistance related to the Minamata Convention. Another representative, speaking on behalf of the same group of countries, said that the financial mechanism and the work of the regional centres were interlinked and should be discussed together and be the subject of a single draft decision.
- 15. Two representatives said that their Governments were prepared to accept the removal of the square brackets in the guidance to the GEF as contained in document UNEP/MC/COP.1/8, leaving the text clean. The Committee of the Whole then approved the text of the guidance to GEF, as contained in appendix 1 to the annex of document UNEP/MC/COP.1/8 with the removal of the square brackets around paragraph 4, and decided to submit it to the Conference of the Parties for consideration and possible adoption.
- 16. Following its discussion, the Committee agreed to establish a contact group on the financial mechanism, co-chaired by Mr. Greg Filyk (Canada) and Ms. Gillian Guthrie (Jamaica), which would further consider the decision on the guidance to the GEF and the specific international programme, taking into account the discussions in the Committee and the related conference room papers submitted by the Group of Latin American and Caribbean Countries and the European Union and its member States, and documents UNEP/MC/COP.1/8, UNEP/MC/COP.1/9 and UNEP/MC/COP.1/9/Add.1. It was also agreed that the conference room paper submitted by the Group of Latin American and Caribbean Countries on regional centres would be discussed informally, with the representative of Argentina serving as a facilitator.
- 17. The co-chair of the contact group on the financial mechanism subsequently introduced a draft decision on the specific international programme and outlined its elements as well as several issues on which consensus had not yet been reached. The Chair informed the meeting that one more delegation had now joined the consensus on certain elements of the draft decision, due to the conclusion of discussions concerning the secretariat, and enquired whether the remaining brackets could be removed. One representative, speaking also on behalf of a number of non-Party countries, expressed their wish to retain their proposal that signatories to the Convention be eligible for funding from the

specific international programme to support technical assistance and capacity-building activities, provided that the country was taking meaningful steps toward becoming a party as evidenced by a letter from the relevant minister to the Executive Director of the United Nations Environment Programme. This would augment efforts in those countries to understand their commitments should they become a party and would probably assist efforts within those countries to ratify the Convention.

- 18. Given that consensus could not be reached on the issue and on the question of whether only parties could serve on the governing board of the specific international programme, but consensus did exist on all other aspects of the draft decision, the Committee agreed to forward a draft decision on the specific international programme to the Conference of the Parties.
- 19. Following the discussions of the contact group, the Committee approved a draft decision on guidance to GEF for consideration and possible adoption by the Conference of the Parties.
- 20. Following the informal consultations on the draft decision on regional centres, the Committee approved for consideration by the Conference of the Parties a revised version of the draft decision, which was contained in the conference room paper.

3. The membership of the Implementation and Compliance Committee as referred to in paragraph 3 of article 15

- 21. The representative of the secretariat introduced the sub-item, outlining the information on the membership of the Implementation and Compliance Committee set out in document UNEP/MC/COP.1/10, including the draft decision in the annex to that document.
- 22. The Committee subsequently approved a draft decision, prepared by the secretariat, on the membership of the Implementation and Compliance Committee, for consideration and possible adoption by the Conference of the Parties.

4. The timing and format of the reporting to be followed by the parties, as referred to in paragraph 3 of article 21

- 23. The representative of the secretariat, introducing the sub-item, drew attention to the latest version of a draft reporting format for the Minamata Convention as reviewed by the intergovernmental negotiating committee at its seventh session and a proposed draft decision on the timing and format of reporting by the parties, as set out in document UNEP/MC/COP.1/11.
- 24. In the ensuing discussion, most of the representatives who took the floor, including several speaking on behalf of groups of countries, stressed that regular reporting by parties on the measures taken to implement the provisions of the Minamata Convention and on the effectiveness of such measures and possible challenges in meeting that objective was crucial to evaluating the Convention's effectiveness and to ensuring that parties received adequate assistance to overcome difficulties in fulfilling their obligations. One said that eliciting reports from non-parties as well would help to expand the coverage and better identify the difficulties; another asked for the reporting format to be made available in all the official languages of the United Nations as soon as possible; another suggested fostering close cooperation with the other chemicals and waste conventions, which, according to one representative, would also make it possible to capitalize on synergies and harmonize existing reporting tools. Some representatives said that lessons could be learned from the low reporting rates under some of those conventions.
- 25. Many representatives called for an emphasis on the provision of technical and financial support to assist developing countries in gathering data and completing the reporting format. Some identified small island developing States as priority recipients.
- 26. On the draft reporting format, several representatives stressed that it was important to avoid overburdening the reporting parties. Some representatives, including one speaking on behalf of a group of countries, said that the format needed to be simple; others expressed a preference for electronic reporting. Regarding the information elicited, one representative suggested the inclusion of data on financial resources and mechanisms; another, said that it should cover human health issues; while a third cautioned against seeking to go beyond the scope of the Convention. Some representatives, including one speaking on behalf of a group of countries, questioned the relevance of some of the areas covered. The representative speaking on behalf of a group of countries also asked for the format to provide respondents with the possibility to include comments and observations on specific questions, and another representative said that it was important to avoid duplication.
- 27. On the question of frequency, most of the representatives who spoke said that a four-year cycle would be suitable for general reporting. Many representatives, including one speaking on behalf of a group of countries, called for annual reporting on key issue areas, such as mercury supply, trade

and waste, which, according to one, would help to tackle the problem of dumping in countries that were net importers and users and, according to the representatives of the non-governmental organizations, would improve government responses to such challenges. Another representative, speaking on behalf of a group of countries, suggested that initial reporting should be completed before the second meeting of the Conference of the Parties, also suggesting that the frequency of reporting should be aligned with that of the meetings of the Conference of the Parties. One representative, supported by another, suggested that parties should submit their first report one year after the entry into force of the Convention, on the understanding that it would not be used to assess the parties' compliance with the Convention.

- 28. The representative of the European Union and its member States introduced a conference room paper presenting the rationale for a four-year cycle for general reporting plus annual reporting on key aspects, such as trade, supply sources and waste, and suggesting ways to update the reporting format and questionnaire instructions accordingly. Several representatives endorsed the paper as a basis for further discussion.
- 29. A representative of a non-governmental organization said that capacity-building and training were a good use of resources and urged the Conference of the Parties to support the provision of financial assistance under the specific international programme. Another stressed that annual reporting, in particular on production and waste, must be made mandatory.
- 30. Many representatives, including a number speaking on behalf of a group of countries, expressed a desire to further discuss and amend the proposed draft reporting format and draft decision in a contact group. Two representatives said that the group should focus solely on bracketed text. Another, however, said that the text should be considered in its entirety in order not to neglect possible interlinkages between bracketed and non-bracketed parts.
- 31. The Committee of the Whole agreed to establish a contact group, co-chaired by Ms. Silvija Kalnins (Latvia) and Mr. David Kapindula (Zambia), to address the outstanding issues in the reporting format and to finalize the draft decision on the timing and format of reporting by the parties for further consideration and approval by the Committee, taking into account the discussions in the Committee and the conference room paper introduced by the European Union and its member States. The group would focus primarily on the bracketed text but should keep an open mind in considering also unbracketed text in situations where it might help to resolve issues related to the bracketed text.
- 32. Following the discussions of the contact group, the Committee approved a draft decision on timing and format of reporting by the parties for consideration and possible adoption by the Conference of the Parties.

5. The establishment of arrangements in regard to effectiveness evaluation as referred to in paragraph 2 of article 22

- 33. Introducing the sub-item, the representative of the secretariat drew attention to the note by the secretariat on the establishment of arrangements in regard to effectiveness evaluation as referred to in paragraph 2 of article 22, set out in document UNEP/MC/COP.1/12. The note, prepared by the secretariat in response to a request by the intergovernmental negotiating committee, contained a draft road map with activities to be carried out in the period between the first and second meetings of the Conference of the Parties to provide comparable monitoring data for the evaluation of the Convention's effectiveness (annex I) and a report containing recommendations on the establishment of arrangements for the provision of such comparable monitoring data (annex II). The Conference of the Parties was being asked to consider the draft road map and a process to assemble the scientific, environmental, technical, financial and economic information upon which the effectiveness evaluation would be based in accordance with paragraph 3 of article 22 of the Convention.
- 34. The representative of Canada then introduced a conference room paper that built on the secretariat's proposed road map and included four elements, namely, work to be conducted by the ad hoc expert group suggested by the secretariat, which focused on establishing global monitoring arrangements for the effectiveness evaluation of the Convention; draft terms of reference for the ad hoc expert group; an overall approach for the evaluation of the Convention's effectiveness with indicative timelines aligned with those of the Convention; and a draft decision on effectiveness evaluation. It was to be hoped, he said, that the conference room paper, on which several representatives had made suggestions for improvement, would be used as the basis for further discussion in a contact group.
- 35. In the ensuing discussion, several representatives said that the evaluation of the Convention's effectiveness was of paramount importance and the Conference of the Parties must work on the

necessary arrangements at the current meeting. Many representatives also expressed support for basing further discussions on the conference room paper developed by Canada.

- 36. One representative, speaking on behalf of a group of countries, said that monitoring was costly and the Conference of the Parties should therefore define the minimum level of monitoring required to ensure a sufficiently robust evaluation of the Convention's effectiveness, which would rely heavily on information reported by parties under article 21. Such evaluation should take into account the laboratory capabilities of developing countries; focus on background mercury levels and on trends and the expected impacts of such trends on future mercury levels in the environment, biota and populations; and use 2013, which was the year the Convention had been adopted, as a baseline.
- 37. One representative said there was a need to take into account the limited ability of parties to compare levels and movements of mercury in environmental media, biota and vulnerable populations prior to and after the implementation of the Convention. Another said that article 22 referred to the evaluation of the Convention as a whole and the arrangements for financial assistance, technology transfer and capacity-building were policy issues that formed part of the evaluation.
- 38. Several representatives expressed support for the establishment of the ad hoc group of experts proposed in the secretariat's road map. A number made suggestions regarding the composition of, and the kinds of expertise needed within, the group. One representative said that the group should have expertise on artisanal small-scale mining, mercury waste, contaminated sites, trade, mercury-added products and interim storage. Another said it should include representatives of academia and civil society. A third suggested that two expert groups should be established, one with expertise in measurements and modelling, which should develop a global mercury monitoring strategy, and another with expertise in evaluation matters, which should develop parameters and performance indicators to undertake the wide-ranging evaluation under article 22. Another representative suggested that the proposed expert group should focus on identifying available and comparable data before undertaking the other tasks suggested in the draft road map prepared by the secretariat.
- 39. Two representatives said that the Minamata Convention could benefit greatly from the lessons learned under the Stockholm Convention related to global monitoring and effectiveness evaluation.
- 40. Representatives of intergovernmental organizations then made statements. The representative of the World Health Organization (WHO) said that her organization had extensive expertise in mercury biomonitoring and was ready to offer such expertise to the proposed ad hoc expert group, should the group be created, and drew attention to the global database of chemical contaminants in food managed by WHO, which contained mercury data related to food intended for human consumption. The representative of the United Nations Environment Programme (UNEP) drew attention to a global review of mercury monitoring networks and a compilation of laboratory capacities across regions to identify and quantify mercury in biotic and abiotic samples, set out in document UNEP/MC/COP.1/INF/15.
- 41. Representatives of non-governmental organizations then made statements. Two representatives said the proposed ad hoc group of experts should include representatives of Governments, academia and civil society, and have expertise in monitoring and the range of environmental, technical, financial and economic issues that would need to be examined to evaluate the Convention's effectiveness. They further suggested that the group develop a method to collect, integrate and use non-monitoring data before the second meeting of the Conference of the Parties.
- 42. One representative drew attention to four scientific papers developed for policymakers by a group of scientists, which were available at the current meeting and would be made available on the Minamata Convention website. Another representative said that health-related indicators on exposure, monitoring and action should be developed and that it was crucial that the capacities of laboratories be strengthened to enable biomonitoring, including of humans.
- 43. Following the discussion, the Committee agreed to refer the sub-item to the contact group dealing with reporting, as described in paragraph 28 of the present report, for further discussion, and to ask the group to agree on an approach on the establishment of arrangements for the provision of comparable monitoring data; agree on work to be undertaken during the period between the first and second meetings of the Conference of the Parties; consider further work needed related to effectiveness evaluation; and prepare a draft decision on effectiveness evaluation for consideration by the Committee using the conference room paper prepared by Canada as a basis for the discussion.
- 44. Subsequently, the co-chair of the contact group reported that the group had prepared a draft decision on effectiveness evaluation containing two annexes, the first of which set out the secretariat's draft road map with activities to be carried out in the period between the first and second meetings of

the Conference of the Parties, and the second of which included the terms of reference for the ad hoc expert group mentioned in that road map.

- 45. Following the discussions of the contact group, the Committee approved a draft decision on the establishment of arrangements in regard to effectiveness evaluation for consideration and possible adoption by the Conference of the Parties.
- 6. Financial rules for the Conference of the Parties and any of its subsidiary bodies, as well as financial provisions governing the functioning of the secretariat, as referred to in paragraph 4 of article 23
 - 46. The representative of the secretariat introduced the sub-item, outlining the information on draft financial rules for the Conference of the Parties and any of its subsidiary bodies, as well as financial provisions governing the functioning of the secretariat of the Convention, set out in document UNEP/MC/COP.1/13, and on the relationship between UNEP and the multilateral environmental agreements for which it provided the secretariat, set out in document UNEP/MC/COP.1/INF/9.
 - 47. One representative, speaking on behalf of a group of countries, said that while the financial rules had been largely agreed at sessions of the intergovernmental negotiating committee, it was still necessary to ensure that they adequately reflected the policy decisions that were going to be taken with regard to the secretariat, particularly on the host country contribution, and that they did not leave room for interpretation. The financial rules would also have to reflect the policy decisions taken with regard to the specific international programme and the provision of resources to support technical assistance and capacity-building in accordance with article 13 of the Convention.
 - 48. One representative, referring to two conference room papers submitted by the Group of Latin American and Caribbean Countries the first on the specific international programme, and the second on the financial rules highlighted the linkage between the specific international programme and the formulation of the financial rules.
 - 49. Following its discussion, the Committee agreed to refer consideration of the issue to the contact group on programme of work, financial rules and budget, to be co-chaired by Mr. Reginald Hernaus (Netherlands) and Mr. Sam Adu-Kumi (Ghana).
 - 50. Subsequently, the Committee considered and approved a draft decision on the draft financial rules prepared by the contact group on programme of work, financial rules and budget for consideration by the Conference of the Parties, noting that the financial rules contained text in brackets relating to the differential treatment of developing countries, least developed countries and small island developing States that the contact group had been unable to agree upon.

B. Matters stipulated by the Conference of Plenipotentiaries

1. Provisions for the functions of the permanent secretariat of the Minamata Convention

- 51. The Deputy Executive Director introduced the revised report on proposals on how the Executive Director of UNEP would perform the functions of the permanent secretariat for the Convention, set out in document UNEP/MC/COP.1/14, providing an overview of the three options presented in the revised report. Option 1 (a) would merge the secretariat functions of the Minamata Convention into the secretariat of the Basel, Rotterdam and Stockholm conventions, utilizing its current structure in Geneva; option 1 (b) would merge the secretariat of the Minamata Convention into the secretariat of the Basel, Rotterdam and Stockholm conventions by creating, in the interim, a Minamata Convention branch, also in Geneva; while option 2 would establish a standalone secretariat of the Minamata Convention, with the location to be determined on the basis of an analysis of the following UNEP duty stations: Bangkok; Geneva; Nairobi; Osaka, Japan; Vienna; Washington, D.C.
- 52. The representative of Switzerland made a presentation on his Government's offer to host the permanent secretariat in Geneva (UNEP/MC/COP.1/INF/7) and clarification provided by the Government of Switzerland following consideration of the offer by the intergovernmental negotiating committee at its seventh session (UNEP/MC/COP.1/INF/8).
- 53. During the ensuing discussion, many representatives, including two speaking on behalf of groups of countries, offered their views on whether the secretariat of the Minamata Convention should be fully integrated, as in option 1 (a) or partially integrated, as in option 1 (b), with the secretariat of the Basel, Rotterdam and Stockholm conventions or be an entirely separate entity, as in option 2. Many of them, including one speaking on behalf of a group of countries, supported complete integration with the secretariat of the Basel, Rotterdam and Stockholm conventions to take full advantage of synergies arising from working in close collaboration with the other conventions in the chemicals and waste cluster, and to enable the nascent convention to benefit from the experience of

the well-established secretariat. A representative speaking on behalf of a group of countries specified, however, that his support of full integration of the secretariats did not imply support for merging the meetings of the Conference of the Parties with those of the conferences of the parties of the other conventions, which, he said, was a separate issue and should not be confused with a decision on the structure and location of the secretariat. He also suggested that the Conference of the Parties should consider how to enhance cooperation and coordination within the chemicals and waste cluster and provide the Executive Director of UNEP with clear policy direction on the matter.

- 54. A number of representatives took the opposite view, however, contending that integration could reduce the secretariat's profile and the attention the Convention would receive, and limit the secretariat's effectiveness in supporting the Conference of the Parties and achieving the objectives of the Convention. As a new treaty, they said, the Minamata Convention needed the undivided attention of a single secretariat, as in option 2, at least in its early years, in order to achieve greater political visibility and make its mark.
- 55. Many of those who spoke, including one speaking on behalf of a group of countries, supported partial integration, namely option 1 (b), as a middle ground that would provide the Convention with the benefits of synergies and experience while preserving a certain degree of autonomy. Two representatives indicated their preference to discuss the matter further before taking a stance, with one stressing the need to consider jointly other important aspects such as the financial mechanism. A third representative sought clarification on whether Switzerland's offer of funding in relation to a stand-alone secretariat included the host Government's assessed contribution, and what the difference would be in parties' assessed contributions for the three options presented.
- 56. At the suggestion of the Chair, the Committee agreed to establish a Friends of the Chair group to discuss the matters of the provisions for the functions of the permanent secretariat of the Minamata Convention and the physical location of the permanent secretariat further. Subsequently, the Chair asked Mr. Yingxian Xia (China) and Mr. Sverre Thomas Jahre (Norway) to facilitate further informal consultations on the issue.
- 57. Subsequently, the Chair informed the Committee that the Friends of the Chair group had been unable to reach agreement on the sub-item. Expressing appreciation to the group's co-facilitators, he said that a group of countries had prepared a proposal on a possible way forward and invited the proponents to introduce it.
- 58. The representative of Costa Rica introduced a draft decision on the secretariat submitted by Costa Rica, Ecuador, Ghana, Japan, Jordan, Mexico, Panama, Peru and Zambia, as well two non-parties, Chile and Colombia, which was contained in a conference room paper. She said that the draft decision had been prepared as a transitional solution with regard to the location of and arrangements for the secretariat. In the draft decision, the Conference of the Parties requested the Executive Director of the United Nations Environment Programme to continue to provide the services of the secretariat in Geneva; welcomed Switzerland's offer to host the secretariat in Geneva and its annual host country contribution of 1 million Swiss francs; agreed to review the organizational arrangements of the secretariat at the second meeting of the Conference of the Parties; and asked the secretariat to cooperate and collaborate with the secretariat of the Basel, Rotterdam and Stockholm conventions and with relevant UNEP units in the period between the first and second meetings of the Conference of the Parties.
- 59. In the ensuing discussion, many representatives expressed support for the draft decision and the way forward proposed therein, stressing their regret that agreement had not been reached on final arrangements for the secretariat at the current meeting and expressing the hope that agreement would be reached at the second meeting of the Conference of the Parties.
- 60. Clarification was sought from the proponents as to whether the proposed decision deferred the final decision on the secretariat location to the second meeting of the Conference of the Parties, or whether Geneva was being selected as the location of the permanent secretariat at the current meeting and only the specific arrangements for the secretariat's structure and functioning would be reviewed at the second meeting.
- 61. Three of the proponents said that Geneva should be selected as the permanent secretariat's location and only the arrangements for the secretariat should be decided at the second meeting. Another proponent suggested subsequently that Geneva would be the interim location of the secretariat and the Conference of the Parties would make a final decision on the location of and arrangements for the secretariat at its second meeting.
- 62. One representative said that the Conference of the Parties had not agreed on the location of the permanent secretariat at the present meeting and that the draft decision should clearly provide that the

issue of location, along with the other secretariat arrangements, would need to be reviewed and decided upon by the Conference of the Parties at its second meeting.

- 63. At the request of the Chair, the representative of the United States subsequently presented a conference room paper that introduced a number of changes to the draft decision and clarified that the location of and arrangements for the permanent secretariat would be decided upon by the Conference of the Parties at its second meeting.
- 64. Most of the representatives who spoke, including one speaking on behalf of a group of countries, said that Geneva represented the ideal location for the secretariat facilitating coordination between the secretariat and member States through their permanent missions in Geneva and between the secretariat of the Minamata Convention and that of the Basel, Rotterdam and Stockholm conventions and other Geneva-based institutions dealing with chemicals and waste and should be selected as such.
- 65. One representative said that defining the location of and arrangements for the permanent secretariat was key to enabling the secretariat to support parties and non-parties in the implementation of the multiple technical decisions that would be adopted at the current meeting and that not defining such issues would weaken the ability of countries to implement those decisions and deter non-parties from accelerating their ratification of the Convention. Another representative said that due consideration should be given to selecting Geneva as the location of the permanent secretariat, particularly given that Switzerland had offered a generous contribution to host the secretariat.
- 66. One representative asked whether the host country contribution of 1 million Swiss francs welcomed in the draft decision would be Switzerland's host country contribution irrespective of what was decided at the second meeting of the Conference of the Parties. In that regard, he said that it was important to determine how the host country contribution would be divided between the Special Trust Fund and the General Trust Fund. Another representative, speaking on behalf of a group of countries, asked whether Switzerland would consider providing an additional 500,000 Swiss francs to the core budget as part of its host country contribution.
- 67. One of the proponents of the draft decision said that the amount of the host country contribution would be revised by the Conference of the Parties at its second meeting.
- 68. The representative of Switzerland clarified that Switzerland's offer to provide 1 million Swiss francs to the specific international programme depended on whether a "good solution" on the secretariat was adopted at the current meeting. The decision to host the secretariat in Geneva for one year, he said, did not constitute a "good solution" given that it would leave the secretariat with considerable uncertainty and make it difficult for the secretariat to attract qualified staff.
- 69. Following informal consultations between interested parties, the Committee approved a decision on the secretariat in which the Conference of the Parties decided, among other things, to request the Executive Director of the United Nations Environment Programme to perform the functions of the secretariat "initially through" a secretariat located in Geneva and to review the organizational arrangements for the secretariat, including its location and the host country contribution, at its second meeting.
- 70. Following the approval of the decision, the representative of Switzerland expressed appreciation to those who had developed the compromise text and said that Switzerland accepted the draft decision but would have preferred a final decision on the secretariat in order to set the Convention on a more solid foundation and facilitate the conduct of the important work that lay ahead.

2. Draft memorandum of understanding between the Conference of the Parties to the Minamata Convention and the Council of the Global Environment Facility

- 71. Introducing the sub-item, the representative of the secretariat outlined the information set out in document UNEP/MC/COP.1/15, which contained, in its annex I, a draft decision for consideration by the Conference of the Parties, and, in annex II, the updated text of the draft memorandum of understanding between the Conference of the Parties to the Minamata Convention and the Council of the Global Environment Facility. The memorandum had been considered by the intergovernmental negotiating committee, noting its non-legally binding nature at its seventh session and revisions had been made subsequently following comments by one member of the GEF Council and a review of these comments by the legal office of UNEP and the GEF secretariat. The revisions that had been made were highlighted on the cover page of the document.
- 72. In the ensuing discussion, one representative, supported by another, said that, regrettably, the decision-making process regarding access to international financial resources and technology transfer continued to be politicized. One representative said that the text of the memorandum of understanding

should contain a provision on avoiding such politicization, while another noted that it was important for countries to receive guidance on how to fill out forms requesting financial support for projects.

- 73. Following its discussion, the Committee agreed that the contact group on the financial mechanism would further consider the draft memorandum of understanding, as well as the related draft decision contained in document UNEP/MC/COP.1/15.
- 74. Subsequently, the co-chair of the contact group on the financial mechanism reported that additional text had been proposed for the draft memorandum of understanding with the Global Environment Facility (GEF) and the related draft decision but that the group had been unable to reach agreement on the proposals.
- 75. In the ensuing discussion, one representative, supported by another, took the floor to express concern that some countries had seen their project proposals rejected or not considered by the GEF Council on what appeared to be political grounds, unrelated to the goal of meeting the objectives of the concerned multilateral environmental agreements. It was crucial, they said, for that concern to be reflected and addressed in the draft memorandum of understanding so as to ensure that no such politicization of decision-making and funding allocations take place under the Minamata Convention.
- 76. The Chair assured the parties that their concerns would be put to the President of the Conference of the Parties, the Chief Executive Officer of GEF, the Executive Director of the United Nations Environment Programme and the relevant ministers present at the current meeting.
- 77. Subsequently, the Chair informed the Committee that agreement had not been reached in the informal consultations on the suggested additional paragraphs that remained in brackets. The Committee agreed to forward to the Conference of the Parties for its consideration the draft memorandum of understanding, including the bracketed text.

C. Matters recommended by the intergovernmental negotiating committee

1. Guidance document on the preparation of national action plans for artisanal and small-scale gold mining

- 78. The representative of the secretariat drew attention to the draft guidance document on the preparation of national action plans for artisanal and small-scale gold mining set out in annex II to document UNEP/MC/COP.1/17 and information on draft guidance developed by WHO on addressing health aspects in the context of developing national action plans for artisanal and small-scale gold mining contained in document UNEP/MC/COP.1/INF.12.
- 79. Noting that paragraph 3 (a) of article 7 of the Minamata Convention required that each party with more than insignificant artisanal and small-scale gold mining and processing in its territory develop and implement a national action plan in accordance with Annex C to the Convention, she recalled that at its seventh session, the international negotiating committee had agreed to the provisional use of the guidance in its then-current form to assist countries in the preparation of national action plans in the period between that session and the first meeting of the Conference of the Parties. The Committee had also requested the secretariat to seek further comments from Governments and others to improve the guidance with a view to presenting a revised version for consideration and possible adoption by the Conference of the Parties. The interim secretariat had invited Governments and others to provide such information and also consulted with regions and subregions on the content of the guidance as part of workshops addressing, among others, issues relating to artisanal and small-scale gold mining. The revised guidance document on the preparation of national action plans was set out in annex II to document UNEP/MC/COP.1/17.
- 80. The Committee approved a draft decision on a guidance document on the preparation of national action plans for artisanal and small-scale gold mining, and the accompanying guidance document, as contained in document UNEP/MC/COP.1/17, for consideration and possible adoption by the Conference of the Parties.

2. Physical location of the permanent secretariat

- 81. The Deputy Executive Director introduced the issue as set out in chapter II, section B, part 1, on provisions for the functions of the permanent secretariat of the Minamata Convention, above.
- 82. The representative of Switzerland made a presentation on the offer to host the permanent secretariat in Geneva as set out in chapter II, section B, part 1, above.
- 83. Many representatives, including two speaking on behalf of groups of countries, took the floor to give their views on where the permanent secretariat of the Convention should be located. Most were supportive and appreciative of Switzerland's offer to host the secretariat in Geneva, in many cases

because they also supported some level of integration with the secretariat of the Basel, Rotterdam and Stockholm conventions. Other reasons cited were the physical proximity of many United Nations entities, international agencies, countries' diplomatic representations, Switzerland's strong history as a host country, and the fact that Switzerland was the only country that had offered to host the secretariat.

- 84. A number of representatives expressed reservations regarding the location of the secretariat in Geneva while indicating their willingness to discuss the matter. Three representatives noted the relative costs of the different UNEP duty stations, with one suggesting Nairobi as a suitable alternative and another seeking clarification on the differences between Geneva and the other duty stations. One representative stressed the need to take other important aspects, such as the financial mechanism, into consideration when deciding where to locate the secretariat.
- 85. As mentioned in paragraph 56 of the present report, at the suggestion of the Chair, the Committee agreed to establish a Friends of the Chair group to discuss the matters of the provisions for the functions of the permanent secretariat of the Minamata Convention and the physical location of the permanent secretariat further. Subsequently, the Chair asked Mr. Yingxian Xia (China) and Mr. Sverre Thomas Jahre (Norway) to facilitate further informal consultations on the issue.
- 86. Discussions on the physical location of the secretariat were closely linked to those regarding the provisions for the functions of the permanent secretariat of the Minamata Convention as set out in section B, part 1, of chapter II, above.
- 87. The Committee approved a decision on the secretariat, in which the Conference of the Parties decided, among other things, to request the Executive Director of the United Nations Environment Programme to perform the functions of the secretariat initially through a secretariat located in Geneva and to review the organizational arrangements for the secretariat, including its location and the host country contribution, at its second meeting.

3. Consideration of the report on open burning

- 88. The representative of the secretariat introduced the sub-item, outlining the information set out in document UNEP/MC/COP.1/19, including the report on mercury emissions related to the open burning of waste set out in the annex thereto.
- 89. There was consensus among the representatives who spoke that the matter of open burning of waste was of great importance, with mercury being only one of a range of pollutants emitted by the activity. A number of representatives highlighted that the issue was of particular concern in developing countries, where open burning of waste was often unregulated and uncontrolled; that it was very difficult to assess the scale and nature of the problem and that waste was generally not separated. In that regard, there was a clear need for further accurate information, and a number of countries had started to prepare inventories of mercury emissions and releases in order to more clearly define the challenge being faced. One representative, speaking on behalf of a group of countries, supported the suggestion that the secretariat continue to compile information on emissions from open burning as part of its overall consideration of the inventories submitted by countries, while proposing that that information be gathered from other sources as well.
- 90. Several representatives noted that during the conduct of their Minamata initial assessments, they had realized that open burning was an important source of mercury releases in their countries. One representative said that the Minamata initial assessments could be an important component of waste management systems in general. The representative of the United Nations Institute for Training and Research (UNITAR) said that while data were still not adequate to make a detailed assessment of mercury emissions from open burning, he encouraged early action to combat the problem.
- 91. Regarding the timeline for further consideration of the information gathered by the secretariat, one representative suggested a longer period to allow time for sufficient information to be compiled, with submission to the fifth meeting of the Conference of the Parties, while a number of representatives said that the urgency of the matter required a shorter timeline, with reporting as early as the second meeting. One representative called for early dissemination of the information gathered to all parties to inform national action. One representative, speaking on behalf of a non-governmental organization, stated that the fact that full information was not available should not be taken as a reason to defer consideration of the matter.
- 92. Several representatives said that developing countries were severely hampered by the lack of availability of techniques for the collection of accurate data, and called on developed country partners and donors for assistance with technology transfer and capacity-building. One representative of a non-governmental organization highlighted the matter of medical waste, which was a complex area

requiring technological solutions. Another representative said that campaigns were needed at the national level to raise awareness of the dangers posed by open burning.

- 93. Some representatives noted the opportunity for synergies with the Stockholm Convention, given that the text of that Convention included reference to open burning as a source of persistent organic pollutants, and the guidelines on best available techniques and best environmental practices contained guidance on the open burning of waste. One representative proposed the formulation of a toolkit on mercury emissions similar to the Stockholm Convention Toolkit for Identification and Quantification of Releases of Dioxins, Furans and Other Unintentional POPs.
- 94. The Committee of the Whole agreed to request the secretariat to develop, in consultation with interested delegations, a draft decision reflecting the debate on mercury emissions related to the open burning of waste, which would be submitted to the Committee for its consideration.
- 95. The Committee approved a draft decision on mercury emissions related to the open burning of waste for consideration and possible adoption by the Conference of the Parties.

D. Programme of work of the secretariat and budget for the period 2018–2019

- 96. Introducing the sub-item, the representative of the secretariat drew attention to notes by the secretariat on a progress report on the work of the interim secretariat in the period since the seventh session of the intergovernmental negotiating committee (UNEP/MC/COP.1/20); the programme of work of the secretariat and budget for the period 2018–2019 (UNEP/MC/COP.1/21), which she said was based on best estimates with regard to the priorities of the programme of work and budget for 2018–2019 that took into account the text of the Convention and information gathered by the interim secretariat since 2010; and four addendums to document UNEP/MC/COP.1/21 which provided, respectively, details on the proposed budget (UNEP/MC/COP.1/Add.1), an overview of the resources required for staffing (UNEP/MC/COP.1/Add.2), an overview on the indicative scale of assessments (UNEP/MC/COP.1/Add.3), and an overview of the resources required for each of the proposed options for the secretariat (UNEP/MC/COP.1/Add.4). Document UNEP/MC/COP.1/21 further incorporated a draft decision on the programme of work and budget for consideration by the Conference of the Parties.
- 97. She also drew attention to notes by partner organizations on their activities related to the Minamata Convention.
- 98. In the ensuing discussion, several representatives, including two speaking on behalf of groups of countries noted that it would be important to approve a programme of work and budget that allowed a permanent secretariat to conduct its work effectively. It was acknowledged that the budget would necessarily reflect decisions on other issues, including, inter alia, the location of the secretariat, level of host-country support, arrangements for the specific international programme, and the programme of work, including mandates for intersessional work. One representative suggested that it would be useful for participants in the budget discussion to separate issues that depended on the location of the secretariat from issues that were not.
- 99. One representative called for a realistic budget while another, speaking on behalf of a group of countries, underscored that the budget needed to be affordable and supported by the timely contributions by all parties. While expressing appreciation for the work of the interim secretariat, some representatives, including one speaking on behalf of a group of countries, said that further discussions required additional information, including, inter alia, detailed activity sheets; more details regarding the programme of work; and explanations for the relatively high projected costs of meetings and staff and the inconsistencies among the different budget documents, including the use of different methodologies to calculate staff costs. One of these representatives introduced a conference room paper outlining some of these concerns.
- 100. One representative, speaking on behalf of a group of countries, expressed support for a programme of work and budget that would enable the realization of the Convention's objectives and provide the secretariat with sufficient resources to allow for it to be efficient and effective in fulfilling its mandate and to adequately address the interests of countries in his region. As many activities were to be undertaken for the first time, given the recent entry into force of the Convention, aspects of the design and implementation of applicable activities within the programme of work should rely on the experience and success of the secretariat of the Basel, Rotterdam and Stockholm conventions. The budget discussion should include consideration of the division of the contributions of the host country between the general and voluntary special trust funds, contributions to special funds to address specific technical and implementation issues, and sufficient support for the specific international programme. Adequate support for technical assistance and capacity-building should be included within the budget and programme of work, including the work mandated by the outcome of the

- discussions on technical issues. Another representative, said that it would be understandable if certain elements of the budget exceeded the norms in other conventions given that work under the Minamata Convention was just beginning. Such costs should, however, decline as its operations matured.
- 101. The representative of the secretariat said that, in response to the concerns expressed by some parties that more information was needed on the proposed programme of work and budget and in order to facilitate the contact group discussions on those issues, the secretariat had provided two reference documents to the Conference of the Parties at its first meeting. The first provided additional details on the programme of work and activities being proposed and on their related budget, while the second document provided further details on the calculation of the secretariat costs, including staff costs for its location in Geneva, and information on the potential impact of the host country's contribution on the Convention's core budget and the assessed contributions towards the General Trust Fund.
- 102. Representatives of the Inter-Organization Programme for the Sound Management of Chemicals (IOMC), the secretariat of the Aarhus Convention and its Protocol on Pollutant Release and Transfer Registers, the United Nations Industrial Development Organization (UNIDO), the United Nations Development Programme (UNDP), the United Nations Institute for Training and Research (UNITAR) and the Permanent Secretariat of the Amazon Cooperation Treaty then made statements, outlining activities carried out by their organizations which related to mercury and which supported, or could support, the ratification and implementation of the Minamata Convention. A representative of the Global Mercury Partnership Advisory Group also made a statement on the activities of the Partnership.
- 103. Following the discussion, the Conference agreed to defer consideration of the programme of work and budget and the related draft decision to a contact group on programme of work, financial rules and budget to be co-chaired by Mr. Reginald Hernaus (Netherlands) and Mr. Sam Adu-Kumi (Ghana).
- 104. Subsequently, the Chair drew attention to a conference room paper submitted by the group of Latin American and Caribbean States on regional and subregional centres for capacity-building, technical assistance and technology transfer relevant to the Minamata Convention on Mercury. One representative said that time constraints had not permitted comments her delegation had transmitted to its proposers to be addressed and thus her delegation could not yet support the draft decision. At the suggestion of the Chair, the Committee agreed that interested representatives would engage in informal consultations and report back to the Committee.
- 105. Subsequently, the Committee approved a draft decision on a draft budget and programme of work prepared by the contact group on programme of work, financial rules and budget. for consideration and possible adoption by the Conference of the Parties.

III. Matters stipulated by the Convention for action by the Conference of the Parties (agenda item 6)

- 106. The representative of the secretariat introduced document UNEP/MC/COP.1/22, a compilation document that briefly presented the areas of the Convention text where the Conference of the Parties was required to take action at some point. The document covered matters relating to article 3 on mercury supply sources and trade (agenda item 6 (a)), article 4 on mercury-added products (agenda items 6 (b) and 6 (c)), article 5 on manufacturing processes in which mercury or mercury compounds were used (agenda item 6 (d)), article 14 on capacity-building, technical assistance and technology transfer (agenda item 6 (j)) and article 16 on health issues (agenda item 6 (k)).
- A. Consideration of whether trade in specific mercury compounds compromises the objective of the Convention and whether specific mercury compounds should, by their listing in an additional annex adopted in accordance with article 27, be made subject to paragraphs 6 and 8 of article 3
 - 107. Introducing the sub-item, the representative of the secretariat explained that in relation to article 3, the Convention text required that the Conference of the Parties evaluate whether trade in specific mercury compounds compromised the objective of the Convention, and whether specific mercury compounds should, by their listing in an additional annex to the Convention, be made subject to paragraphs 6 and 8 of article 3. She also noted that UNEP had produced in 2006 a report on the trade in mercury entitled *Summary of Supply, Trade and Demand Information on Mercury*, which had since been updated. Subsequently, responding to a concern raised by a representative, she specified that the trade provisions under article 3 related only to elemental mercury, and that trade in mercury-added products fell under article 4.

- 108. One representative said that for the sake of effective international action on mercury, mercury compounds should be included in the trade restrictions stated in paragraphs 6 and 8 of article 3, and described actions taken by his Government to impose tight trade restrictions on mercury compounds.
- 109. Another representative suggested that mercury compounds be included in the reviews of annexes A and B, under articles 4 and 5, which would make for a more efficient and cost-effective process.
- 110. A third representative, speaking on behalf of a group of countries, proposed initiating work on the evaluation referred to in paragraph 13 of article 3, on the basis that recent work, the report of which he offered to share, on the trade in mercury compounds, conducted for the purposes of preparing mercury import and export legislation, had confirmed that such compounds could be traded with the aim of recovering mercury and circumventing controls applying to mercury trade.
- 111. One representative, recalling that paragraph 13 of article 3 called for the Conference of the Parties to evaluate whether the trade in specific mercury compounds compromised the objective of the Convention, questioned whether such a discussion was appropriate given the small number of parties at this early stage in the life of the Convention. Furthermore, the Conference of the Parties was required to "consider whether specific mercury compounds should, by their listing in an additional annex adopted in accordance with article 27, be made subject to paragraphs 6 and 8", which would entail an amendment to the Convention. Given the amount of work already on the table for the current meeting and the number of issues already to be considered at the second meeting of the Conference of the Parties, it might be unwise, she suggested, to start any additional work prior to a trade evaluation.
- 112. A representative of a non-governmental organization suggested that the issue of the trade in mercury compounds be considered in the same time frame as the annex A and B revisions, and that the evaluation process be initiated at the third meeting of the Conference of the Parties. He pointed out that the updated UNEP trade report documented a large volume of trade in mercury compounds, yet no timetable had been provided for the evaluation in the document.
- 113. The Committee agreed to fully reflect the discussion in the report of its proceedings, and to recommend to the Conference of the Parties that it continue to work on the issue at its future meetings.

B. Reports submitted by parties implementing paragraph 2 of article 4 and review of the effectiveness of the measures

C. The review of Annex A referred to in paragraph 8 of article 4

- 114. The Committee considered sub-items 6 (b) and 6 (c) jointly.
- 115. In her introduction, the representative of the secretariat indicated that sub-item 6 (b) referred to reports from parties implementing paragraph 2 of article 4 in relation to mercury-added products, while sub-item (c) related to the future review of annex A, to be undertaken within five years of the entry into force of the Convention, and possible inclusion of new products within the annex. She noted that given the date of entry into force of the Convention, the fourth meeting of the Conference of the Parties would fall within the five-year time limit and could therefore be considered for the review.
- 116. One representative, speaking on behalf of a group of countries, supported holding the review at the fourth meeting of the Conference of the Parties, and suggested that the secretariat be mandated to begin the necessary work immediately. Another representative struck a note of caution regarding the amount of work already planned and the need to avoid starting additional work unnecessarily early.
- 117. The Committee agreed to recommend to the Conference of the Parties that it review annex A at its fourth meeting, in 2021, and that it request the secretariat to take the necessary steps to prepare for such a review.

D. The review of Annex B referred to in paragraph 10 of article 5

- 118. Introducing the sub-item, the representative of the secretariat explained that it concerned the review of annex B of the Convention relating to manufacturing processes in which mercury or mercury compounds were used, which was very similar to the review of annex A.
- 119. The Committee agreed to recommend to the Conference of the Parties that it review annex B at its fourth meeting, in 2021, and that it request the secretariat to take the necessary steps to prepare for such a review.

E. The guidance referred to in paragraphs 7 (a) and 7 (b) of article 9

- 120. The representative of the secretariat introduced a note by the secretariat containing information on guidance to be prepared by the Conference of the Parties on the methodology for preparing inventories of releases from relevant sources, and on best available techniques and best environmental practices for the control of releases from such sources (UNEP/MC/COP.1/24). She recalled that under article 9 of the Convention, on releases, the Conference of the Parties was required to adopt such guidance as soon as practicable. She also noted that the guidance on the methodology for preparing inventories of emissions from the identified sources under article 8, which had already been adopted by the Conference of the Parties, bore some relevance to the work on releases, particularly as one of the tools that could be used considered not only emission but also releases to land, air and water. She further noted that article 9 of the Convention did not include any list of sources of releases, but rather required parties to identify those sources they consider relevant.
- 121. A number of representatives said that they were in favour of encouraging parties and countries to identify relevant point sources and to submit the information on the identified sources and the annual quantity of releases from such sources to the secretariat as soon as possible, in order to enable the secretariat to compile and analyse the data and provide the appropriate information to the Conference of the Parties at its second meeting. One representative, supported by another speaking on behalf of a group of countries, suggested that once the secretariat had finished compiling the information on relevant point sources, an expert group should be established to assess the information and come up with the best available techniques and best environmental practices for releases from relevant sources, as had previously been done for emissions. He further proposed that the expert group be established at the second meeting of the Conference of the Parties. Another representative also suggested that the secretariat could develop guidance to help parties and countries identify relevant point sources.
- 122. Three representatives spoke about their experiences to date in identifying point sources of release with the help of the toolkit developed by the secretariat, including one who indicated potential for overestimation of mercury releases from the default release factors in the toolkit, and the need for more detailed quantification of mercury releases using a more precise toolkit.
- 123. One representative reiterated his country's concerns in connection with the guidance under article 8, particularly regarding the need to ensure that best available techniques and best environmental practices were relevant to the local conditions; those concerns, he said, also applied to the guidance provided for in article 9.
- 124. The Committee requested the secretariat to prepare a draft decision for its consideration, taking into account the discussion.
- 125. The Committee subsequently approved a draft decision, prepared by the secretariat, on guidance in relation to mercury releases for consideration and possible adoption by the Conference of the Parties.

F. The guidelines on the interim storage of mercury and mercury compounds referred to in paragraph 3 of article 10

- 126. Introducing the sub-item, the representative of the secretariat drew attention to draft guidelines on the interim storage of mercury and mercury compounds, set out in document UNEP/MC/COP.1/25. She recalled the mandate for, and the process that had led to, the elaboration of the draft guidelines on the environmentally sound interim storage of mercury other than mercury waste in their current form, as set out in annex II to document UNEP/MC/COP.1/25.
- 127. In the ensuing discussion, all the representatives who spoke underscored the importance of the issue and the contribution that appropriate guidelines could make to the effective implementation of the Convention. Expressing support for the work carried out by the secretariat, many representatives, including one speaking on behalf of a group of countries, also offered suggestions for improving the draft guidelines, including, inter alia, augmenting particular technical details; incorporating additional information gathered from parties and relevant experts; including consideration of the varying capacity of parties to implement the guidelines; delineating the importance of risk evaluation with regard to interim storage; addressing the storage of products containing mercury that were awaiting reuse or treatment as waste; examining the relationship between interim storage and production and consumption quantities; clarifying the applicability of different guidelines to mercury and mercury compounds; addressing storage related security issues relevant to the illegal use of mercury in mining activities; addressing introducing time limits on interim storage; addressing issues relevant to storing small quantities of mercury; clarifying key terms, including what constituted a reasonable quantity;

addressing additional issues relating to transport; and ensuring that interim storage facilities were decommissioned in an environmentally sound manner.

- 128. Two representatives emphasized that some parties would require assistance to implement the guidelines effectively, with one encouraging developed country parties to take the lead in implementing the guidelines and providing such assistance in accordance with the principle of common but differentiated responsibilities.
- 129. Following a proposal by the Chair, the Committee of the Whole agreed to establish a contact group, co-chaired by Ms. Karissa Kovner (United States of America) and Ms. Teeraporn Wiriwutikorn (Thailand) to consider a number of technical issues. The group would, among other things, discuss the draft guidelines in more detail and report back to the Committee.
- 130. Following the discussions of the contact group, the Committee approved a draft decision on draft guidelines on the interim storage of mercury and mercury compounds referred to in paragraph 3 of article 10 for consideration and possible adoption by the Conference of the Parties.

G. The definition of mercury waste thresholds referred to in paragraph 2 of article 11

- 131. The representative of the secretariat, introducing the sub-item, drew attention to the relevant documents containing a compilation of the additional information on the use of mercury waste thresholds requested by the intergovernmental negotiating committee (UNEP/MC/COP.1/26); the outcomes of the informal intersessional discussions to propose appropriate thresholds, led by Japan, with a proposed draft decision on intersessional arrangements for the period leading up to the second meeting of the Conference of the Parties (UNEP/MC/COP.1/INF/10); and the options for a draft decision on mercury wastes prepared by the intergovernmental negotiating committee at its seventh session (UNEP/MC/COP.1/26/Add.1).
- 132. The representative of Japan reported briefly on the informal intersessional discussions that had culminated in the recommendations and draft decision on the arrangements for intersessional work on mercury waste thresholds, in particular the establishment of an ad hoc intersessional group of technical experts. He then introduced a conference room paper containing a draft decision on mercury wastes in which the options prepared by the intergovernmental negotiating committee had been incorporated into the draft decision on intersessional arrangements, and in which much of the text remained in square brackets.
- 133. In the ensuing discussion, general appreciation was expressed to the Government of Japan for organizing the informal discussions to propose mercury waste thresholds, in keeping with article 11 of the Minamata Convention, and for the information contained in the documents before the Committee, including the conference room paper, which, according to one representative, gave parties a clear understanding of the underlying problems. Several representatives said that the paper in particular provided a good basis for further discussion.
- 134. It was generally agreed that defining mercury waste thresholds was important work, with several representatives stressing that the establishment of sound thresholds was crucial to ensuring the effectiveness of the Convention in protecting human health and the environment against mercury exposure.
- 135. Many representatives, including one speaking on behalf of a group of countries, said that the information provided in the documents would be useful for defining the thresholds. Several, however, said that further clarification and more in-depth work were needed on the questions of, inter alia, whether all three categories of mercury wastes set out in article 11 of the Convention were necessary and conducive to achieving the objectives of the Convention; the types of thresholds, content or leachate; the legal consequences of exceeding or falling short of thresholds; and the importance of ensuring that they were simple and accessible to all parties. Several representatives said that it was important to take into account the individual circumstances and needs of countries, with one adding that some would need help to align their existing mercury waste management standards and guidelines with the Convention.
- 136. On the proposed intersessional arrangements to continue the work of defining the thresholds, many representatives expressed support for the establishment of an ad hoc intersessional group of technical experts. Many stressed that it was important to ensure the geographic balance of the group; several called for the broad participation of all relevant organizations, civil society and the private sector; some said that non-parties should be included; and one called for small island developing States to be represented. A number of representatives expressed a desire to participate actively in the proposed intersessional working group, which should, according to one representative speaking on

behalf of a group of countries, work by electronic means. Some representatives, including one speaking on behalf of a group of countries, suggested that the terms of reference of the group and the type of work to be undertaken should be further discussed in a contact group.

- 137. One representative, speaking on behalf of a group of countries, observed that experience in the complex work of defining mercury waste thresholds was limited among the parties and signatories to the Minamata Convention and another offered to provide substantial technical support, drawing on his country's practical and longstanding experience in the management of mercury wastes throughout the supply chain.
- 138. Meanwhile, support was also expressed for the proposal to apply the Basel Convention technical guidelines for the environmentally sound management of wastes consisting of elemental mercury and wastes containing or contaminated with mercury under the Minamata Convention. One representative, speaking on behalf of a group of countries, said that it was important to finalize and adopt a draft decision on the matter, based on the options presented in document UNEP/MC/COP.1/26/Add.1. Another representative said that he looked forward to working with the Basel Convention experts.
- 139. Representatives of non-governmental organizations also made statements. One said that the adoption of weak thresholds risked leaving vast amounts of contaminated wastes, soils and sediments outside of environmentally sound management frameworks. A number suggested technical considerations, such as the purity percentage and concentration rate to distinguish between "mercury waste" and "waste contaminated with mercury".
- 140. The Committee agreed to mandate the contact group on technical issues, established as set out in paragraph 129 of the present report, to further discuss the sub-item, based on the documents before the Committee, including the conference room paper submitted by Japan, and taking into account the discussions in the Committee, with a view to resolving the outstanding issues in the documents.
- 141. Subsequently, the co-chair of the contact group reported that the group had reached agreement on the draft decision on the arrangements for intersessional work on mercury waste thresholds and on the timeline for that work.
- 142. The Committee approved a draft decision on mercury waste for consideration and possible adoption by the Conference of the Parties.

H. The guidance on the management of contaminated sites referred to in paragraph 3 of article 12

- 143. The representative of the secretariat drew attention to the guidance on the management of contaminated sites referred to in paragraph 3 of article 12, which was set out in document UNEP/MC/COP.1/27.
- 144. In the ensuing discussion, many representatives said that it was important to carry out further work on the draft guidance, with several noting that the harmful impact of contaminated sites in their countries underscored the need for urgent action.
- 145. There was general agreement that a working group of experts should be established to contribute to the development of the draft guidance during the intersessional period, with several representatives, including two speaking on behalf of groups of countries, expressing their willingness to nominate experts for that purpose. One representative said that the group should include experts from both the environment and health sectors, and from developed and developing countries, while two others called for a regionally balanced composition.
- 146. Several representatives voiced their support for the secretariat's proposal that the draft guidance should be developed in line with the road map included in document UNEP/MC/COP.1/27, and building on the draft structure and content outlined in that document. One representative, however, expressed concern that the road map was overly ambitious, and suggested, along with two other representatives, that more in-depth talks should be held on the matter in the context of a contact group.
- 147. Two representatives noted that it would be helpful to develop preventive guidance, while another emphasized that the guidance should be practical. Human health and environmental risk assessments, orientation for the selection of appropriate technologies in developing countries, possible methods for managing contaminated soils, advice on management for countries with limited resources and the threshold concentration or trigger level for further or formal investigation of a site were all cited by individual representatives, including one speaking on behalf of a group of countries, as issues that warranted attention or further consideration in the draft guidance. One representative said that

special circumstances, such as war, should be taken into account, while another called for an exploration of financing options for remediation projects. One representative stressed that there was a need to develop guidelines for the management of mercury generated by contaminated soil management activities.

- 148. Two representatives noted that developing countries, in particular, required technical and financial assistance, and several others highlighted the value of capacity-building and the sharing of best practices and experiences in managing contaminated sites. One representative said that a problem faced by many developing countries was a lack of public awareness of the location of contaminated sites, more often than not because no register of sites had been compiled. Another representative, stressing that registers were vital, said that mechanisms and strategies should be put in place for evaluating and prioritizing contaminated sites.
- 149. One representative said that, in document UNEP/MC/COP.1/27, the meaning of the phrase "determination of the national level of mercury or mercury compound contamination" should be clarified, as should the stage at which public engagement should be sought in the risk assessment and site management process. Regarding risk assessment, it was appropriate for the guidance to focus on human health and the environment, but there was a need to define the mechanisms for gauging exposure to contamination. The validation of outcomes mentioned in annex III to the document should cover action and follow-up plans, among other things.
- 150. Several representatives described the efforts made in their countries to manage contaminated sites. In that connection, one representative requested guidance from the secretariat on whether, when the trigger level for further or formal investigation of a site had been reached, that site necessarily had to be closed down and isolated, or whether, if it was an operating mine, for example, it could be granted special dispensation to remain open.
- 151. Representatives of non-governmental organizations also made statements. One called for it to be acknowledged in the document that dental schools, offices and hospital clinics were sources of contamination. Another, noting that mercury-contaminated sites represented a major source of air, soil and water pollution, said that guidance was urgently required on the management of such sites. Steps should be taken to ensure that guidance was adopted at the second meeting of the Conference of the Parties. Those steps should include the establishment of an expert working group, whose meetings should be face-to-face and open to civil society organizations. Lastly, it was important for countries to develop appropriate measures, including sustainable remediation plans, to protect communities affected by contamination from new primary mercury mining and cinnabar processing plants.
- 152. Subsequently, the Committee agreed to refer the matter to the contact group on technical issues, established as set out in paragraph 129 of the present report. The contact group was to consider the structure of the guidance on the management of contaminated sites, finalize the road map for the preparation of the guidance document on the management of contaminated sites and prepare a draft decision for the consideration of the Committee of the Whole, based on the information contained in document UNEP/MC/COP.1/27 and the discussions in the Committee.
- 153. The co-chair of the contact group subsequently reported that the group had finalized a draft decision for consideration by the Committee of the Whole. That decision called for the development of draft guidance on managing contaminated sites. The group had agreed to a schedule of work to be provided as annex I to the decision, and provided the secretariat with general comments on the existing content and structure of the guidance contained in annex II to the decision. Those general comments would be taken into account during the drafting of the guidance document.
- 154. The Committee approved a draft decision on guidance on the management of contaminated sites, as orally amended, for consideration and possible adoption by the Conference of the Parties. The Committee agreed that the annexes prepared for the present meeting would remain attached to the draft decision and that the secretariat would be entrusted with updating the annexes in accordance with the agreements made at the present meeting.
- I. The consideration of capacity-building, technical assistance and technology transfer as referred to in paragraph 4 and paragraph 5 of article 14, including any recommendations on how such activities could be further enhanced under article 14
 - 155. In her introduction to the sub-item, the representative of the secretariat explained that article 14 provided for the Conference of the Parties, by its second meeting and thereafter on a regular basis, to consider information on existing initiatives and progress made in relation to alternative technologies and the needs of parties, particularly developing-country parties, for alternative technologies, and to

identify challenges experienced by parties, particularly developing-country parties, in technology transfer.

- 156. The Committee agreed to recommend to the Conference of the Parties that it request the secretariat to seek submissions and reports from parties and other stakeholders on issues relating to existing initiatives and progress made in relation to alternative technologies, on the needs of parties, particularly developing-country parties, for alternative technologies and on challenges experienced by parties, particularly developing-country parties, in technology transfer, and to present the information received to the Conference of the Parties at its second meeting for consideration.
- 157. Subsequently, a representative of a non-governmental organization pointed out that more would be required than a simple compilation of information by the secretariat in order to set the stage for such an assessment.
- J. Consultation and collaboration with the World Health Organization, the International Labour Organization and other relevant intergovernmental organizations, and promotion of cooperation and exchange of information, as appropriate, in relation to health-related issues or activities, as referred to in paragraph 2 of article 16
 - 158. Introducing the sub-item, the representative of the secretariat indicated that article 16 required the Conference of the Parties, in considering health-related issues or activities, to consult and collaborate with WHO, the International Labour Organization (ILO) and other relevant intergovernmental organizations, and to promote cooperation and information exchange with such organizations, as appropriate.
 - 159. A representative of WHO made a statement expressing appreciation to the Minamata interim secretariat for its collaboration on a number of fronts, and indicating that WHO would be pleased to collaborate in the preparation of a joint work plan once the permanent secretariat had been established.
 - 160. One representative, speaking on behalf of a group of countries, thanked WHO for cooperating and working with the secretariat and asked that the two entities continue their collaboration. Another representative expressed concern at a perceived absence of ILO at the global level, and asked that the secretariat encourage the involvement of that organization in implementing the Convention at the global, regional, subregional and national levels.
 - 161. The Committee agreed to recommend to the Conference of the Parties that it request the secretariat to continue to actively engage in cooperation and collaboration with WHO, ILO and other relevant organizations in the implementation of the Minamata Convention.

【添付資料7】

PFHxS (ペルフルオロヘキサンスルホン酸) とその塩及び PFHxS 関連物質の残留性、生物蓄積性等に関する情報

1. 残留性等に関する情報

提案文書の記載(UNEP/POPS/POPRC.13/4)

PFASs(perfluoroalkyl substances)は、一般的に残留性があると認識されている(reviewed in ECHA, 2017)。その化学構造は、疎水性のアルキル鎖と親水性の官能基で構成されており、強い 炭素-フッ素結合による高い安定性により、それらのいくつかは環境、野生生物及びヒトの血液に 遍在している(Giesy and Kannan, 2001; Reviewed by Xu et al., 2013)。PFHxS の環境運命データ は非常に少ない。リードアクロスアプローチに基づき、PFOS のような他の PFASs の環境運命に適 用される結論も PFHxS に有効であると予想できる。したがって、PFHxS は加水分解、光分解及び 生分解するとは予想されず、他の PFASs と同様に廃水処理場における除去はほとんどないこと が報告されている(Danish Ministry of the Environment, 2015)。PFHxS は、Taniyasuら(2013)によ って確認されたように、光分解を受けない。彼らは、マウナ・ケア山及び立山の標高が高い場所 で、PFHxS を含むいくつかの PFASs の光分解に関するフィールド試験を行った。106 日間及び 20.5 日間それぞれ集中的に太陽光を照射したこの試験において、PFHxS の有意な光分解は観察 されなかった。これは、PFHxS が光分解によって分解しないことを示す。我々の知る限りでは、 PFHxS に関する利用可能な他の分解試験はない。しかし、PFHxS に構造的に非常に類似してお り、すでにストックホルム条約に記載されている PFOS(reviewed in UNEP, 2006)は、非常に残留 性が高いとみなされ、試験したいずれの環境条件でも、加水分解、光分解または生分解しない (OECD, 2002)_o

PFASs のグループ全体に有効、したがって PFHxS にも有効ないくつかの特徴がある。PFASs は、その強い炭素-フッ素結合(Kissa, 2001)及び環境中に残留する要因である分解に対する抵抗があるために、化学的、熱的及び生物学的分解に対して非常に耐性がある。環境および生物中では、ペルフルオロスルホン酸塩は一般的に、不揮発性の酸の形態で見られる(Houde et al., 2006)。

[Annex D の基準に従った残留性の結論]

ペルフルオロアルキル物質の既知の残留性及び非常に残留性が高い PFOS との密接な構造類似性に基づき、PFHxSとその塩及び関連物質は残留性に関する附属書 D の基準を満たすと結論される。

1.1 水中、土壌中及び底質中での半減期

1.1.1 水中での半減期

- ・ リードアクロスアプローチに基づいて、PFOS のような他の PFASs の環境運命に適用される結論も PFHxS に有効であると予想できる。したがって、PFHxS は加水分解するとは予想されない。
- PFHxS の加水分解に関する利用可能な研究はない(ECHA, 2017)。
- ・ <u>類似物質の PFOS は、環境条件下で加水分解に対して安定であり、半減期は 41 年以上とされた(UNEP, 2006)。関連物質の PFOA も環境条件下で加水分解に対して安定であり、</u>半減期は 92 年以上とされた(ECHA, 2013b)。
- PFHxS は、CF 結合の安定性及び PFOS 及び PFOA からのリードアクロス(Annex I)に基づき、環境条件下で加水分解に対して安定であると考えられる(ECHA, 2017)。

1.1.2 土壌中での半減期

- PFHxS の実験的な土壌分解試験に関する利用可能なものはない(ECHA, 2017)。
- 残留性及び高残留性(very persistence)の基準に合致していることが示されている PFOA と同様に(ECHA, 2013a)、類似物質の PFOS は土壌培養で残留性が認められている (UNEP, 2006)。
- 要約すると、PFSAs 及び PFCAs の一般的な分解に対する安定性及び PFOS 及び PFOA からのリードアクロス (Annex I) に基づき、PFHxS は土壌における残留性及び高残留性の基準に合致すると考えられる(ECHA, 2017)。

1.1.3 底質中での半減期

該当する情報なし。

1.2 その他の残留性に関する情報

1.2.1 生分解性

- ・ <u>調査した範囲内では、化審法における PFHxS 及び提案文書に例として挙げられている</u> 塩及び関連物質(表 1)の分解度点検結果はない。
- PFHxS の利用可能な実験による生分解性試験はない(ECHA, 2017)。
- Annex I に示されたデータに基づき、構造類似物質の研究結果を PFHxS の生分解性の 評価に利用することができる(ECHA, 2017)。
- 要約すると、PFSAs 及び PFCAs の一般的な分解に対する安定性及び PFOS 及び PFOA からのリードアクロス (Annex I)に基づき、PFHxS は易分解性ではないと考えられる (ECHA, 2017)。
- ・ リードアクロスアプローチに基づいて、PFOSのような他のPFASsの環境運命に適用される結論も PFHxS に有効であると予想できる。生分解に関しては他の PFASs と同様に、

PFHxS は廃水処理場における除去はほとんどないことが報告されている(<u>Danish</u> Ministry of the Environment, 2015)。

1.2.2 加水分解

• 1.1.1 水中での半減期 参照。

1.2.3 光分解

- ・ リードアクロスアプローチに基づき、PFOS のような他の PFASs の環境運命に適用される 結論もPFHxSに有効であると予想できる。したがって、PFHxS は光分解するとは予想され ない。
- ・ PFHxS は、Taniyasu ら(2013)によって確認されたように、光分解を受けない。彼らは、マウナ・ケア山及び立山の標高が高い場所で、PFHxSを含むいくつかのPFASsの光分解に関するフィールド試験を行った。106 日間及び 20.5 日間それぞれ集中的に太陽光を照射したこの試験において、PFHxS の有意な光分解は観察されなかった。これは、PFHxS が光分解試験によって分解しないことを示す。
- ・ <u>類似物質の PFOS で実施された他の光分解試験では、試験したいずれの条件下においても直接または間接光分解は認められず、25°Cにおける PFOS の間接光分解半減期は</u> 3.7 年超と推定された(UNEP, 2006)。
- 関連物質の PFOA は天然水中で直接光分解を起こさず、間接光分解(Fe₂O₃の添加)の
 推定半減期は349 日超である(ECHA, 2013a)。

1.2.4 その他

- PFHxS に構造的に非常に類似しており、すでにストックホルム条約に記載されている PFOS(reviewed in UNEP, 2006)は、非常に残留性が高いとみなされ、試験したいずれの 環境条件でも、加水分解、光分解または生分解しない(OECD, 2002)。
- ・ PFASs のグループ全体に有効、したがって PFHxS にも有効ないくつかの特徴がある。 PFASs は、その強い炭素-フッ素結合(Kissa, 2001)及び環境中に残留する要因である分解に対する抵抗があるために、化学的、熱的及び生物学的分解に対して非常に耐性がある。環境および生物中では、ペルフルオロスルホン酸塩は一般的に、不揮発性の酸の形態で見られる(Houde et al., 2006)。

1.2.5 結論

ペルフルオロアルキル物質の既知の残留性及び非常に残留性が高い PFOS との密接な構造類似性に基づき、PFHxSとその塩及び関連物質は残留性に関する附属書Dの基準を満たすと結論される。

2. 生物蓄積性等に関する情報

提案文書の記載(UNEP/POPS/POPRC.13/4)

実験による log Kow 値は PFHxS については報告されていない。PFASs は、特定の分子部分にわたって疎油性、疎水性及び親水性の特性を併せ持ち、オクタノール-水混合物中に複数の層を形成すると予想され、log Kow を測定することは実験的に困難である(OECD, 2002 and 2006; Conder et al., 2008)。さらに、PFHxS は、肝臓および血液中のタンパク質に優先的に結合することが示されており(Ahrens et al., 2009; Martin et al., 2003; Goeritz et al., 2013)、したがって生物蓄積性の評価として log Kow は PFHxS 及び関連物質には適切ではない。これは、ストックホルム条約で評価及び記載されている物質の PFOS グループにも見られた(UNEP, 2006; Kitano, 2007)。

PFHxS の報告されている生物濃縮係数(BCF)及び生物蓄積係数(BAF)は、5000 の数値基準を下回っており、水生生物における低い生物蓄積性を示す。PFHxS を含む AFFF (aqueous film-forming foam、水成膜泡消火薬剤)に暴露されたニジマスの BCF は 133 と報告されている (Yeung and Mabury, 2013)が、同様の研究で PFHxS の BCF は 9.6(全身)から 100(肝臓)の範囲であった(Martin et al., 2003)。しかし、脂質分配性物質の検討に基づくBCF または BAF の数値基準は、脂肪組織への分配を伴う従来の疎水性化合物の挙動に従わない PFHxS には適切ではない。代わりに、血液及び肝臓中のタンパク質に優先的に結合する PFOS 及び他のペルフルオロ化合物において観察された挙動と同様である(Martin et al., 2003; Ahrens et al., 2009; Goeritz et al., 2013)。さらに、その水溶解度のために、PFHxS は魚においてエラ透過によって速やかに排泄されることが予想される(Martin et al., 2003; Goeritz et al., 2013)。

生物蓄積係数(BMFs)及び栄養濃縮係数(TMFs)は、ある生物における化学物質濃度が食物連鎖のより低いレベルの生物のそれを超える場合、栄養移行による生物蓄積を明らかに示している (reviewed by Counder et al., 2012)。バレンツ海食物網から選択された種における生物蓄積の調査が Haukås et al. (2007)によって実施された。ハジロウミバト/北極タラ、シロカモメ/北極タラ、及びシロカモメ/ハジロウミバトについて報告された栄養段階で補正した BMF は、それぞれ 6.0、7.2 及び 8.5 であった。Butt et al. (2008)による研究では、カナダ北極圏のいくつかの場所で、北極グマ/ワモンアザラシの捕食者-被食者関係について、BMF が 163~373 の範囲で報告された。両方の種で肝臓中濃度を用いて BMF が算出されたが、PFASs はタンパク質の豊富な組織に優先的に蓄積することが示されているため、全身で算出した BMF に比べて蓄積性が過大評価されている可能性がある。いくつかの捕食者-被食者の関係における生物蓄積に関するデータが利用可能である。Houde et al. (2006)は、米国の 2 つの異なる地点で、バンドウイルカ/被食者の食物網における PFHxS の蓄積を調査した。チャールストンの 2 地点 (工業地帯)における BMF は 3.3~14の範囲であった。サラソータ湾(居住地)では、2 つのイルカ/被食者関係と 2 つの魚/動物プランクトンの関係が調査され、BMF は 1.8~10 の範囲であった。この研究では、血漿ベース及び全身ベ

一スの両方を用いて海洋食物網における TMF が算出された。TMF は 0.2 ± 0.9 <u>及び</u> 0.1 ± 0.4 であり、いずれも栄養濃縮を示さなかった(<u>Houde et al., 2006</u>)。しかし、TMF は大きなばらつきがあり、それが標準誤差に反映され対応するそれぞれの TMF よりも大きくなっている。さらに、サンプルは数年(2002 年から 2004 年)の期間にわたって収集され、温度、サンプリング時間、生殖状態(<u>reproduction</u> reproductive status)、移行(migration)及び齢などの多くの要因が TMF の計算に影響し得ることが報告されている(Borgå et al., 2012)。食物網における PFHxS の栄養濃縮を調査した研究は限られている。したがって、PFHxS の TMF から結論を得ることはできない。しかし、捕食者-被食者の研究では、いくつかの動物において明らかな生物蓄積が示され、BMF> 1 が多数報告されている。

PFHxS を含む既知の濃度の PFASs で汚染された餌を与えられたブタに関する研究が報告されている (Numata et al., 2014)。その結果、未排泄の PFHxS は血漿に最も蓄積され、続いて筋肉に蓄積されることが示された。検出された PFASs (ペルフルオロヘキサン酸 (PFHxA)、ペルフルオロヘプタン酸 (PFHpA)、ペルフルオロオクタン酸 (PFOA)、ペルフルオロブタンスルホン酸 (PFBS)、ペルフルオロヘプタンスルホン酸 (PFHpS) 及び PFOS) のうち、PFHxS は 21 日間の試験期間中において排泄率が最も低く、PFHxS がブタの組織に蓄積することを示している。さらに、血中タンパク質との強い結合性、低クリアランス/遅い排泄速度は、化学物質の生物蓄積能及び長い半減期の最も良い予測因子として提案されている (Tonnelier et al., 2012)。Numata et al. (2014)の研究では、血漿中の PFHxS の排出半減期は 713 日であり、PFHxS のブタの全身、肉及び肝臓の BMFはそれぞれ 20.1、13.1、及び 48 であった。比較として、これらのブタにおける PFOS 及び PFOA の半減期は、それぞれ 634 日及び 236 日であった (Numata et al., 2014)。

PFHxS は、世界的にヒト試料で頻繁に検出される(Christensen et al., 2016; Fromme et al., 2017; Gibson et al., 2016; Jin et al., 2016)。スウェーデンの研究では、1996~2010 年の間に妊婦の血中PFHxSレベルが増加していることが示された(Glynn et al., 2012)。さらに、PFHxS は臍帯血で検出され、PFOSで報告された量よりも多く胚に伝播された(Gützkow et al., 2012)。PFHxS は、いくつかの研究で母乳中にも検出された(Posner et al., 2013)。退職した 26 人のフルオロケミカル生産労働者の血清中のPFHxS、PFOS 及び PFOA の排出半減期が報告されている(Olsen et al., 2007)。PFHxS、PFOS 及び PFOA の半減期はそれぞれ 8.5 年、5.4 年及び 3.8 年であった。したがって、PFHxS の半減期は PFOS の半減期の約 1.5 倍である。非ヒトにおける薬物動態学的研究では、PFHxS の血清排出半減期が種間、場合によっては種内の性別間、で大きく異なることが示されている(Hundley et al., 2006; Sundstrom et al., 2012)が、一般的に報告されているヒトの血清排出半減期よりは、はるかに短い。PFOS 及び PFOA に加えて PFHxS はヒトの血液中で最も頻繁に検出されるペルフルオロ化合物であり、PFOS の濃度は一般的に PFHxS 及び PFOA に比べて高い (Posner et al., 2013)。

上記の蓄積及び濃縮の研究に加えて、PFHxS は、大気、土壌、下水汚泥、及び北極圏の北極タラ、シロカモメ、ワモンアザラシ、北極グマを含む多くの種に見られる(Posner et al., 2013; Haukås et al., 2007)。北米北極圏 5 カ所とヨーロッパ北極圏 2 カ所の北極グマの現地調査では、PFHxSがすべての場所で検出された(Smithwick et al., 2005b)。ヨーロッパ北極圏のスヴァールバル地方では、北極グマの肝臓で 2940ng/g(2260~4430ng/g wt の範囲)の平均濃度が検出され、北極グマで報告されている PFHxS の最高濃度であった。比較として、同じサンプル中の PFOS の検出量は平均 1290ng/g(wt)であった。従って PFHxS 濃度より約 2.5 倍低い。Smithwick et al. (2005a) によるさらなる研究では、東グリーンランドの北極グマの肝臓における PFHxS の平均濃度は140ng/g wt で、一方、検出された PFOS の量は 15 倍以上多かった。これらの場所で観察されたPFHxS 濃度と PFOS 濃度の差は、長距離輸送経路の違い及びこれらの物質の世界的な供給源の違いに起因する可能性がある(Smithwick et al., 2005b)。

[Annex D の基準に従った生物蓄積性の結論]

PFHxS は、北極の食物連鎖において BMF> 1 で生物濃縮する。さらに、モニタリングデータは、生物相における PFHxS の濃度を示し、物質が生物によって取り込まれることを示す明確な指標となっている。ヒトでは PFHxS が蓄積し、その排泄は非常に遅く、半減期は約8年である。報告されている BMF、ヒトの非常に長い半減期、及び北極圏の北極グマで検出された高レベルに基づいて、PFHxS は附属書 D スクリーニング基準を満たす。

2.1 水生生物の BCF 又は BAF、あるいはオクタノール/水分配係数(log Kow)

2.1.1 濃縮倍率 (BCF 又は BAF)

● BCF 又は BAF

- ・ PFHxS の報告されている生物濃縮係数(BCF)及び生物蓄積係数(BAF)は、5000 の数値基準を下回っており、水生生物における低い生物蓄積性を示す。
- PFHxS を含む AFFF(水成膜泡消火薬剤)に暴露されたニジマスの BCF は 133 と報告されている(Yeung and Mabury, 2013)が、同様の研究で PFHxS の BCF は 9.6(全身)から 100(肝臓)の範囲であった(Martin et al., 2003)。
- ・ しかし、脂質分配性物質の検討に基づくBCF またはBAF の数値基準は、脂肪組織への分配を伴う従来の疎水性化合物の挙動に従わない PFHxS には適切ではない。代わりに、血液及び肝臓中のタンパク質に優先的に結合する PFOS 及び他のペルフルオロ化合物において観察された挙動と同様である(Martin et al., 2003; Ahrens et al., 2009; Goeritz et al., 2013)。
- ・ さらに、その水溶解度のために、PFHxS は魚においてエラ透過によって速やかに排泄されることが予想される(Martin et al., 2003; Goeritz et al., 2013)。
- ・ 調査した範囲内では、化審法における PFHxS 及び提案文書に例として挙げられている 塩及び関連物質(表 1)の濃縮性点検結果はない。

● BMF 又は TMF

- ・ 生物蓄積係数(BMFs)及び栄養濃縮係数(TMFs)は、ある生物における化学物質濃度が食物連鎖のより低いレベルの生物のそれを超える場合、栄養移行による生物蓄積を明らかに示している(reviewed by Counder et al., 2012)。
- ・ バレンツ海食物網から選択された種における生物蓄積の調査が Haukås et al. (2007) によって実施された。ハジロウミバト/北極タラ、シロカモメ/北極タラ、及びシロカモメ/ハジロウミバトについて報告された栄養段階で補正した BMF は、それぞれ 6.0、7.2 及び 8.5 であった。
- ・ Butt et al. (2008) によって発表された研究では、カナダ北極圏のいくつかの場所で、北極グマ/ワモンアザラシの捕食者-被食者関係について、BMFが163~373の範囲で報告された。両方の種で肝臓中濃度を用いて BMF が算出されたが、PFASs はタンパク質の豊富な組織に優先的に蓄積することが示されているため、全身で算出した BMF に比べて蓄積が過大評価されている可能性がある。
- Houde et al. (2006) は、米国の2つの異なる地点で、バンドウイルカ/被食者の食物網における PFHxS の蓄積を調査した。チャールストンの2地点(工業地帯)における BMF は3.3~14の範囲であった。サラソータ湾(居住地)では、2つのイルカ/被食者関係と2つの

魚/動物プランクトンの関係が調査され、BMF は 1.8~10 の範囲であった。

- この研究では、血漿ベース及び全身ベースの両方を用いて海洋食物網における TMF が 算出された。TMF は 0.2±0.9 <u>及び</u>0.1±0.4 であり、いずれも栄養濃縮を示さなかった (Houde et al., 2006)。
- ・ しかし、TMF は大きなばらつきがあり、それが標準誤差に反映され対応するそれぞれの TMF よりも大きくなっている。さらに、サンプルは数年(2002 年から 2004 年)の期間にわたって収集され、温度、サンプリング時間、生殖状態(reproductive status)、移行 (migration)及び齢などの多くの要因が TMF の計算に影響し得ることが報告されている (Borgå et al., 2012)。食物網における PFHxS の栄養濃縮を調査した研究は限られている。 したがって、PFHxS の TMF から結論を得ることはできない。
- ・ しかし、捕食者-被食者の研究では、いくつかの動物において明らかな生物蓄積が示され、BMF> 1 が多数報告されている。

2.1.2 オクタノール/水分配係数 (log Kow)

- PFHxS の log Kow の測定値は報告されていない。
- ・ PFASs は、特定の分子部分にわたって疎油性、疎水性及び親水性の特性を併せ持ち、オクタノール-水混合物中に複数の層を形成すると予想され、log Kow を測定することは実験的に困難である(OECD, 2002 and 2006; Conder et al., 2008)。
- さらに、PFHxS は、肝臓および血液中のタンパク質に優先的に結合することが示されて おり(Ahrens et al., 2009; Martin et al., 2003; Goeritz et al., 2013)、したがって生物蓄積性 の記述子として log Kow は PFHxS 及び関連物質には適切ではない。これは、ストックホ ルム条約で評価及び記載されている物質の PFOS グループにも見られた(UNEP, 2006; Kitano, 2007)。

2.2 他の生物種での高い蓄積性や生態毒性など、他の懸念理由

- PFHxS を含む既知の濃度の PFASs で汚染された餌を与えられたブタに関する研究が報告されている(Numata et al., 2014)。その結果、未排泄の PFHxS は血漿に最も蓄積され、続いて筋肉に蓄積されることが示された。検出された PFASs(ペルフルオロヘキサン酸(PFHxA)、ペルフルオロヘプタン酸(PFHpA)、ペルフルオロオクタン酸(PFOA)、ペルフルオロブタンスルホン酸(PFBS)、ペルフルオロヘプタンスルホン酸(PFHpS)及び PFOS)のうち、PFHxS は 21 日間の試験期間中において排泄率が最も低く、PFHxS がブタの組織に蓄積することを示している。
- ・ さらに、血中タンパク質との強い結合性、低クリアランス/遅い排泄速度は、化学物質の 生物蓄積能及び長い半減期の最も良い予測因子として提案されている(Tonnelier et al., 2012)。
- Numata et al. (2014) の研究では、血漿中の PFHxS の排出半減期は 713 日であり、

PFHxS のブタの全身、肉及び肝臓の BMF はそれぞれ 20.1、13.1、及び 48 であった。比較として、これらのブタにおける PFOS 及び PFOA の半減期は、それぞれ 634 日及び 236 日であった (Numata et al., 2014)。

- PFHxS は、世界的にヒト試料で頻繁に検出される(Christensen et al., 2016; Fromme et al., 2017; Gibson et al., 2016; Jin et al., 2016)。
- ・ スウェーデンの研究では、1996~2010年の間に妊婦の血中 PFHxS レベルが増加していることが示された(Glynn et al., 2012)。さらに、PFHxS は臍帯血で検出され、PFOS で報告された量よりも多く胚に伝播された(Gützkow et al., 2012)。
- PFHxS は、いくつかの研究で母乳中にも検出された(Posner et al., 2013)。
- * 米国 3M 社の工場を 1995 年 1 月~1998 年 11 月に退職した 26 人(男性 24 人、女性 2 人)のフルオロケミカル生産労働者(追加の職業暴露なし)の血清中の PFHxS、PFOS 及び PFOA の排出半減期が報告されている(Olsen et al., 2007)。約5年間、定期的に対象者の血液サンプルを採取し、LC/MS で分析した。PFHxS、PFOS 及び PFOA の半減期(算術平均/幾何平均)はそれぞれ 8.5年(95%信頼区間(CI);6.4-10.6)/7.3年(95%CI;5.8-9.2)、5.4年(95%CI;3.9-6.9)/4.8年(95%CI;4.0-5.8)及び 3.8年(95%CI;3.1-4.4)/3.5年(95%CI;3.0-4.1)であった。したがって、PFHxSの半減期は PFOSの半減期の約1.5倍である。
- 非ヒトにおける薬物動態学的研究では、PFHxS の血清排出半減期が種間、場合によっては種内の性別間、で大きく異なることが示されている(Hundley et al., 2006; Sundstrom et al., 2012)が、一般的に報告されているヒトの血清排出半減期よりは、はるかに短い。

2.3 生物相でのモニタリングデータ

- PFHxS は、大気、土壌、下水汚泥、及び北極圏の北極タラ、シロカモメ、ワモンアザラシ、 北極グマを含む多くの種に見られる(Posner et al., 2013; Haukås et al., 2007)。
- 北米北極圏 5 カ所とヨーロッパ北極圏 2 カ所の北極グマの現地調査では、PFHxS がすべての場所で検出された(Smithwick et al., 2005b)。
- ・ ヨーロッパ北極圏のスヴァールバル地方では、北極グマの肝臓で $2940 \text{ng/g} (2260 \sim 4430 \text{ng/g} \text{ wt}$ の範囲) の平均濃度が検出され、北極グマで報告されている PFHxS の最高濃度であった。比較として、同じサンプル中の PFOS の検出量は平均 1290 ng/g (wt) であった。
- Smithwick et al. (2005a) によるさらなる研究では、東グリーンランドの北極グマの肝臓における PFHxS の平均濃度は 140ng/g wt で、一方、検出された PFOS の量は 15 倍以上多かった。これらの場所で観察された PFHxS 濃度と PFOS 濃度の差は、長距離輸送経路の違い及びこれらの物質の世界的な供給源の違いに起因する可能性がある(Smithwick et al., 2005b)。

2.4 結論

PFHxS は、北極の食物連鎖において BMF> 1 で生物濃縮する。さらに、モニタリングデータは、生物相における PFHxS の濃度を示し、物質が生物によって取り込まれることを示す明確な指標となっている。ヒトでは PFHxS が蓄積し、その排泄は非常に遅く、半減期は約 8 年である。報告されている BMF、ヒトの非常に長い半減期、及び北極圏の北極グマで検出された高レベルに基づいて、PFHxS は附属書 D スクリーニング基準を満たす。

3. その他の情報

3.1 PFHxS の塩及び関連物質の例

 提案文書 (UNEP/POPS/POPRC.13/4) の Figure 1 に示されている PFHxS とその塩及 び関連物質の例として挙げられている物質を表 1 に示した。

表 1 PFHxS とその塩及び関連物質の例

名称	CAS 番号	略称、構造
Perfluorohexane sulfonic acid	355-46-4	PFHxS O F F F F F F F F F F F F F F F F F F
Perfluorohexane sulfonyl fluoride	423-50-7	PFHxSF
[Precursor/start material]		F F F F F F F F F F F F F F F F F F F
Perfluorohexanesulfonate ammonium salt	68259-08-5	0 NH ₄ + -0 0 F F F F F
Perfluorohexanesulfonate potassium	3871-99-6	0 K+ -0 0 F F F F F
Perfluorohexane sulfonamide	41997-13-1	O F F F F F F F F F F F F F F F F F F F
Potassium N-ethyl-N- [(tridecafluorohexyl)sulfonyl]-	67584-53-6	K+ O S F F F F F F

無印: Proposal (UNEP/POPS/POPRC. 13/4) に記載されている情報、下線: 文献等からの追加情報、

破線の下線:入手済み文献

- ・ 表 1 に挙げられている PFHxS の塩及び関連物質について、調査した範囲内では、残留 性及び生物蓄積性に関する情報は得られていない。
- PFHxS の塩については、ECHA, 2017 の冒頭(Justification)において以下のように述べられている。

(ECHA, 2017 Justification より抜粋)

遊離したペルフルオロヘキサンスルホン酸(PFHxS)は、実験室中と同様に環境中及び生物中の水媒体中で、共役塩基であるペルフルオロヘキサンスルホネート(PFHxS-)と平衡状態にある。PFHxSとPFHxS-の物理化学的性質は異なる。したがって、予想される環境運命は、塩基と酸(pHとpKa)の間の平衡に影響する環境条件に依存する。しか、スルホン酸は強酸であるため、環境条件下(推定pKa:-5.8~0.18)で解離するであろう。

例えば、OECD の PFAS インベントリー(OECD、2007)によれば、世界市場で利用可能な PFHxS の無機塩類がいくつか存在すると仮定できる。これらのうちの 2 つ、PFHxS のアンモニウム塩(PFHxS·NH4)及びカリウム塩(PFHxS·K)、は ECHA の CLP notification database で確認できる。 PFHxS の無機塩は水に非常に溶けやすいと仮定することができる。 PFHxS・NH4 と PFHxS・K はともに水に非常に溶けやすく、水溶液中ではアニオン PFHxS-とアンモニウムまたはカリウムカチオンとして存在する。 水媒体中の溶解アニオン PFHxS-は、対応する酸(PFHxS)と平衡状態にある。

化学種を直接定量する利用可能な方法では、サンプル中の PFHxS-と PFHxS を正確 に区別することは不可能である。 文献では、環境およびヒトのモニタリング研究で報告された濃度は常に両方の種(PFHxS-及び PFHxS)を含むであろう。

以下では、PFHxS は酸(PFHxS)及びその共役塩基 PFHxS-の両方を指す。両方の化 学種を区別することが重要であり、化学種特異的な情報が利用可能な場合にのみ、酸 の PFHxS または共役塩基の PFHxS-のどちらかを明確に示す。

本評価では、物質の直鎖異性体のみを対象とする。

簡潔にするために、本文書の議論及び結論では、PFHxS が通常参照される。しかし、 上記の推論に基づき、結論は PFHxS の塩についても有効であると考えられる。

無印: Proposal (UNEP/POPS/POPRC. 13/4) に記載されている情報、<u>下線</u>:文献等からの追加情報、

破線の下線:入手済み文献

3.2 REACH における PBT 及び vPvB 基準

基準	PBT 物質	vPvB 物質
P:難分解性	海水中半減期>60 日 淡水·河口水中半減期>40 日 海水底質中半減期>180 日 淡水·河口水底質中半減期>120 日 土壌中半減期>120 日	海水中半減期>60 日 淡水·河口水中半減期>60 日 海水底質中半減期>180 日 淡水·河口水底質中半減期>180 日 土壌中半減期>180 日
B:生物蓄積性	BCF>2000	BCF>5000
	海水・淡水生物における長期 NOEC 又は EC10<0.01 mg/L	
T: 毒性	発がん性カテゴリー1A 又は 1B 生殖細胞変異原性カテゴリー1A 又は 1B 生殖毒性カテゴリー1A、1B 又は 2	_
	特定標的臓器毒性(反復)カテゴリー1 又は 2	

4. 参考文献

- Ahrens, L., Siebert, U., Ebinghaus, R., (2009). Total body burden and tissue distribution of polyfluorinated compounds in harbor seals (Phoca vitulina) from the German Bight. Mar Pollut Bull, 58(4), 520-525. (UNEP/POPS/POPRC.13/4 より引用)
- Borgå K, Kidd KA, Muir DC, Berglund O, Conder JM, Gobas FA, Kucklick J, Malm O, Powell DE (2012). Trophic magnification factors: considerations of ecology, ecosystems, and study design. Integr Environ Assess Manag. 8(1):64-84. (UNEP/POPS/POPRC.13/4 より引用)
- Butt CM, Mabury SA, Kwan M, Wang X, Muir DC (2008). Spatial trends of perfluoroalkyl compounds in ringed seals (Phoca hispida) from the Canadian Arctic. Environ Toxicol Chem. 27(3):542-53. (UNEP/POPS/POPRC.13/4 より引用)
- Christensen KY, Raymond M, Thompson BA, Anderson HA (2016). Perfluoroalkyl substances in older male anglers in Wisconsin. Environ Int. 91:312-8. (UNEP/POPS/POPRC.13/4 より引用)
- Conder JM, Hoke RA, De Wolf W, Russell MH, Buck RC (2008). Are PFCAs bioaccumulative? A critical review and comparison with regulatory criteria and persistent lipophilic compounds. Environ Sci Technol. 42(4):995–1003. Review. (UNEP/POPS/POPRC.13/4 より引用)
- Conder JM, Gobas FA, Borgå K, Muir DC, Powell DE (2012). Use of trophic magnification factors and related measures to characterize bioaccumulation potential of chemicals. Integr Environ Assess Manag. 8(1):85-97. (UNEP/POPS/POPRC.13/4 より引用)
- Danish Ministry of the Environment (2015). Short-chain Polyfluoroalkyl Substances (PFAS). A literature review of information on human effects and environmental fate and effect aspects of short-chain PFAS. Environmental project No: 1707, 2015.
- ECHA. (2013). Member State Committee support document for identification of Pentadecafluorooctanoic acid (PFOA) as a substance of very high concern because of its CMR and PBT properties. Adopted on 14 June 2013. (ECHA, 2017 より引用)
- ECHA (2017). Proposal for the identification of a substance of very high concern on the basis of the criteria set out in REACH article 57. Annex XV report for perfluorohexane-1-sulphonic acid and its salts. (https://echa.europa.eu/documents/10162/40a82ea7-dcd2-5e6f-9bff-6504c7a226c5).
- Fromme H, Wöckner M, Roscher E, Völkel W (2017). ADONA and perfluoroalkylated substances in plasma samples of German blood donors living in South Germany. Int J Hyg Environ Health. S1438-4639(16)30568-5. (UNEP/POPS/POPRC.13/4 より引用)
- Gibson J, Adlard B, Olafsdottir K, Sandanger TM, Odland JØ (2016). Levels and trends of contaminants in humans of the Arctic. Int J Circumpolar Health. 75:X-X. (UNEP/POPS/POPRC.13/4より引用)
- Glynn A, Berger U, Bignert A, Ullah S, Aune M, Lignell S, Darnerud PO (2012). Perfluorinated alkyl acids in blood serum from primiparous women in Sweden: serial sampling during pregnancy and nursing, and temporal trends 1996-2010. Environ Sci Technol. 46(16):9071-9. (UNEP/POPS/POPRC.13/4 より引用)
- Goeritz I, Falk S, Stahl T, Schäfers C, Schlechtriem C (2013). Biomagnification and tissue distribution of perfluoroalkyl substances (PFASs) in market-size rainbow trout (Oncorhynchus mykiss). Environ Toxicol Chem. 32(9):2078-88. (UNEP/POPS/POPRC.13/4より引用)
- Gützkow KB, Haug L.S, Thomsen C, Sabaredzovic A, Becher G, Brunborg, G (2012). Placental transfer of perfluorinated compounds is selectiveea Norwegian Mother and Child sub-cohort study. Int. J. Hyg. Environ. Health 215, 216-219. (UNEP/POPS/POPRC.13/4 より引用)
- Haukås M, Berger U, Hop H, Gulliksen B, Gabrielsen GW (2007). Bioaccumulation of per- and

- polyfluorinated alkyl substances (PFAS) in selected species from the Barents Sea food web. Environ Pollut. 148(1):360-71. (UNEP/POPS/POPRC.13/4 より引用)
- Houde M, Bujas TA, Small J, Wells RS, Fair PA, Bossart GD, Solomon KR, Muir DC (2006). Biomagnification of perfluoroalkyl compounds in the bottlenose dolphin (Tursiops truncatus) food web. Environ Sci Technol. 40(13):4138–44.
- Hundley SG, Sarrif AM, Kennedy GL (2006). Absorption, distribution, and excretion of ammonium perfluorooctanoate (APFO) after oral administration to various species. Drug Chem. Toxicol. 29:137—145. (UNEP/POPS/POPRC.13/4 より引用)
- Jin H, Zhang Y, Jiang W, Zhu L, Martin JW (2016). Isomer-ppecific distribution of perfluoroalkyl substances in blood. Environ Sci Technol. 50(14):7808-15. (UNEP/POPS/POPRC.13/4 より 引用)
- Kitano M. (2007). Additional information related to assessment of bioaccumulation data under Annex D of the Convention. Annex: Discussion Paper on Bioaccumulation Evaluation. UNEP/POPS/POPRC.3/INF/8. UNEP, Stockholm Convention on Persistent Organic Pollutants, Persistent Organic Pollutants Review Committee, Third meeting, Geneva, 19-23 November 2007. (UNEP/POPS/POPRC.13/4より引用)
- Martin JW, Mabury SA, Solomon KR, Muir DC. (2003). Bioconcentration and tissue distribution of perfluorinated acids in rainbow trout (Oncorhynchus mykiss). Environ Toxicol Chem, 22(1), 196-204. (UNEP/POPS/POPRC.13/4 より引用)
- Numata J, Kowalczyk J, Adolphs J, Ehlers S, Schafft H, Fuerst P, Müller-Graf C, Lahrssen-Wiederholt M, Greiner M (2014). Toxicokinetics of seven perfluoroalkyl sulfonic and carboxylic acids in pigs fed a contaminated diet. J Agric Food Chem. 62(28):6861-70. (UNEP/POPS/POPRC.13/4 より引用)
- OECD (2002) (Organisation for Economic Co-operation and Development). 2002. Co-operation on existing chemicals. Hazard assessment of perfluorooctane sulfonate (PFOS) and its salts. Environment Directorate. Joint meeting of the Chemicals Committee and the Working Party on Chemicals, Pesticides and Biotechnology. ENV/JM/RD(2002)17/FINAL (Unclassified). (UNEP/POPS/POPRC.13/4 より引用)
- OECD (2006). OECD Test Guideline 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method. (UNEP/POPS/POPRC.13/4 より引用)
- Olsen GW, Burris JM, Ehresman DJ, Froehlich JW, Seacat AM, Butenhoff JL, Zobel LR (2007). Half-life of serum elimination of perfluorooctanesulfonate, perfluorohexanesulfonate, and perfluorooctanoate in retired fluorochemical production workers. Environ Health Perspect. 115(9):1298-305.
- Posner S, Roos S, Brunn Poulsen P, Jörundsdottir H Ó, Gunnlaugsdottir H, Trier X, ... Jensen S. (2013). Per and polyfluorinated substances in the Nordic Countries: Use, occurence and toxicology. Nordic Council of Ministers. (TeamNord; No. 542, Vol. 2013). (UNEP/POPS/POPRC.13/4 より引用)
- Smithwick M, Muir DC, Mabury SA, Solomon KR, Martin JW, Sonne C, Born EW, Letcher RJ, Dietz R (2005a). Perflouroalkyl contaminants in liver tissue from East Greenland polar bears (Ursus maritimus). Environ Toxicol Chem. 24(4):981-6. (UNEP/POPS/POPRC.13/4 より引用)
- Smithwick M, Mabury SA, Solomon KR, Sonne C, Martin JW, Born EW, Dietz R, Derocher AE, Letcher RJ, Evans TJ, Gabrielsen GW, Nagy J, Stirling I, Taylor MK, Muir DC (2005b). Circumpolar study of perfluoroalkyl contaminants in polar bears (Ursus maritimus). Environ Sci Technol. 39(15):5517-23. (UNEP/POPS/POPRC.13/4 より引用)
- Sundström M, Chang SC, Noker PE, Gorman GS, Hart JA, Ehresman DJ, Bergman A, Butenhoff JL (2012). Comparative pharmacokinetics of perfluorohexanesulfonate (PFHxS) in rats, mice, and monkeys. Reprod Toxicol. 33(4):441-51. (UNEP/POPS/POPRC.13/4 より引用)

- Taniyasu S, Yamashita N, Yamazaki E, Petrick G, Kannan K (2013). The environmental photolysis of perfluorooctanesulfonate, perfluorooctanoate, and related fluorochemicals. Chemosphere. 90(5): 1686–92.
- Tonnelier A, Coecke S, Zaldívar, JM (2012). Screening of chemicals for human bioaccumulative potential with a physiologically based toxicokinetic model. Arch. Toxicol. 86, 393—403. (UNEP/POPS/POPRC.13/4 より引用)
- UNEP/POPS/POPRC.2/11 (2006). Draft risk profile: perfluorooctane sulfonate (PFOS). UNEP. (ECHA, 2017 より引用)
- Yeung LW, Mabury SA (2013). Bioconcentration of aqueous film-forming foam (AFFF) in juvenile rainbow trout (Oncorhyncus mykiss). Environ Sci Technol. 47(21):12505-13. (UNEP/POPS/POPRC.13/4 より引用)