9. The Great East Japan Earthquake and Libraries

- * The PDF version of this document will be published on the Current Awareness Portal. (http://current.ndl.go.jp/)
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9.1 Introduction

9.1.1 The Significance of this Report

Using "The Great East Japan Earthquake" and "libraries" as two pivotal keywords, this report organizes reference information and studies as comprehensively as possible information related to the earthquake and libraries, as well as incidents occurring at library facilities due to the earthquake.

a · 1	Approximately one year, from March 11, 2011 - the day of		
Survey period	the earthquake - to mid-March 2012		
	Information and materials put out after the Great East		
	Japan Earthquake, such as damage and reconstruction		
Information Surveyed	conditions at library facilities, related support		
	activities/support organizations, and activities for the		
	preservation of earthquake records and experiences.		
	A basic survey is conducted using database catalogs,		
	electronic journals, the Internet, and print materials;		
Survey Method	when necessary, interviews of participants and officials of		
	various events as well as requests for information have		
	also been carried out.		
	Damage conditions to library facilities due to the		
	earthquake as well as reconstruction conditions; the		
	collection of various information and activities concerning		
	the earthquake and libraries; the organization of		
Contont	bibliographic items and event content; the reorganization		
Content	of a wide variety of information, regions, and		
	chronologies. In addition, outlines and related references		
	have been added to each item. In total, several studies		
	have been published by those connected to library		
	reconstruction.		

In addition, it is assumed that this report will be used in the following ways:

- Future users will read this as recorded material that reorganizes the vast amounts of information on the Great East Japan Earthquake from the point of view of "library facilities."
- Librarians will refer to this as a reference tool for obtaining information related to the Great East Japan Earthquake and library facilities.
- Researchers will use this as base material for understanding earthquakes and library facilities.

With the above assumptions, this report does not include journalistic information and dramatic stories or high-level analysis from specialists. This report organizes existing information; it does not list primary information related to the Great East Japan Earthquake. Please understand beforehand that the area covered is limited to "Japan" and "library facilities;" this is not a general, historical, various fields, comprehensive inquiry regarding the Great East Japan Earthquake and libraries affected by the disaster.

9.1.2 Overall Structure

As a whole, this report takes the shape of basic reference data. The general structure of the report is as follows:

Section 1 Introduction	Basic information needed in order to read the		
	report (summary of the Great East Japan		
	Earthquake; summary of library facilities in		
	Japan.		
Section 2 Outline	An outline of Sections 4 through 6; Brief		
	information of Sections 7 and 8. (It is		
	recommended that this outline be skimmed in		
	cases where the whole section cannot be read due		
	to time constraints.)		
Section 3 Charts and Pictures	Colored Pages. The scope of suffering from the		
	Great East Japan Earthquake, effects, and		
	conditions are shown through photographs and		
	charts.		
Section 4 The State of Damage	While outlining damage conditions of libraries,		
	conditions in particularly hard hit areas are		
	described.		
Section 5 Activities Supporting	Activities related to the support of library		
Reconstruction	reconstruction are organized and summarized as		
	"designated projects where names have been given		
	to activities.		
Section 6 Activities Preserving	g Preservation" activities related to the earthquake,		
Records and Experiences	such as the restoration of information lost due to		
	the earthquake disaster, the recording of		
	earthquake experiences, the construction of digital		
	archives, etc., are summarized.		

Chart 9-1: General Structure of the report

Section 7 Related Materials	Content and data not contained in Sections 3	
and Data	through 6 are collected here. Summaries of	
	support organizations, various related events held	
	during the year since the earthquake, and	
	summaries of references/related materials are	
	listed. Section can be used as Index.	
Section 8. – Studies	The actual studies of five experts holding varying	
	viewpoints and opinions are published: The	
	reference information by the person of National	
	Diet Library who handles this survey is also	
	published.	
Section 9. –The Great East Japan	Helpful information about this report for English	
Earthquake and Libraries	readers. Sections 1, 2 and 8 (the information by	
(this section)	the person of National Diet Library) are translated	
	in English.	

9.1.3 Preface

Sunday, March 11, 2012: In parts of the Tohoku region, snow is falling. One year ago today was also a day like any other – not a special day at all.

At some point in the course of human existence, everyone experiences in their own daily lives a "moment where the world changes," moments where our lifestyles, ways of living, ways of thinking, and sensations are transformed. These occasions are often brought about by external forces and, accompanied by happiness, anger, sadness, joy, astonishment, or fear, are deeply etched into the memories of individuals. Particularly when sudden accidents occur, causing situations that individual strength cannot resist where, in the end, the lives of many people are overwhelmed without rhyme or reason, many people share that "moment where the world changes" when information is communicated to the world by various channels; thereafter, the 'everyday' experiences a great transformation.

On Friday, March 11, 2011 at 2:46 pm, the magnitude 9.0 "The Off the Pacific Coast of Tohoku Earthquake" occurred off the coast of Sanriku, Miyagi Prefecture. This began a world-changing series of events known as "The Great East Japan Earthquake,"¹ an event that shocked not only devastated a region of(northeastern) Tohoku, but also all of Japan and, indeed, the entire world.

In Japan, where earthquakes are quite common, many people mentally prepare themselves by thinking, "An earthquake is coming," upon feeling the initial vibrations. Afterwards, once they sense the severity of the shaking, they consider their next response. However, this earthquake was different. Unlike the instantaneous release of energy from something like an explosion, gradually - but quickly - the shaking grew stronger. Buildings creaked with frightful sounds and there was rumbling in the ground as the surface shook. Upon realizing that the vibrations exceeded anything yet experienced and sensing danger to oneself, anxiety turned to terror. The strong tremors of this earthquake were particularly long, observed to be seismic intensity level 7 - the highest rating on the Japanese earthquake scale. According to Japanese Meteorological Agency's seismic intensity

¹ The name of the earthquake given by Japan Meteorological Association is "The 2011 Off the Pacific Coast of Tohoku Earthquake." The various disasters brought about by the earthquake have come to be called "The Great East Japan Earthquake" by the Cabinet Office.

scale description,² in a level 7 event, "One is unable to stand or crawl; one is thrown about, even hurled, by the shaking and unable to move." "Most unfixed furniture moves and is toppled or hurled." "In most buildings, wall tile and windows are damaged and fall. In some cases, reinforced walls of concrete-block collapse." Many buildings in damage-stricken areas took damage from this first wave of violent shaking, and fires broke out in some areas.

The second wave was a literal wave - a large tsunami like those reported in Southeast Asia and South America, created by the earthquake's violent energy and striking the country where the word was originally coined. The tsunami - reaching an estimated 38.9 meters in some places³ - easily overtook seawalls, engulfed houses and cars as well as the people in coastal regions who were still recovering from the tremors, and carried everything into the sea.

Had this been a typical earthquake, relief measures would have been quickly put in place centering on "visible damage" such as building collapse, fires and floods caused by the first wave (earthquake) and second wave (tsunami). However, the next wave was not visible to the eye. With the onset of the earthquake, reactor units 1 through 3 at Tohoku Electric Power Company's Onagawa Nuclear Power Plant (situated close to the coastline in Miyagi Prefecture), reactor units 1 through 3 at Fukushima Prefecture's Tokyo Electric Power Company's Fukushima Daiichi Nuclear Power Plant (in Fukushima Prefecture), and reactor units 1 through 4 at Tokyo Electric Power Company's Fukushima Daiichi Nuclear power plants. However, at 3:42pm, a report from the Fukushima Daiichi Nuclear Power Plant sent to authorized officials beginning with the Minister of Economy, Trade and Industry indicated that all AC generators were knocked out by the tsunami,⁵ causing a state of emergency at the power plant;⁶ in an instant, the

⁴ Based on "Earthquake Damage Information," by Ministry of Economy, Trade and Industry's Nuclear and Industrial Safety Agency. First report (March 11, 2011, 2:46pm, http://www.meti.go.jp/press/20110311017/20110311017.pdf) on related machinery at related power plants indicating "All operations have ceased," and the second report (same day, 4:15pm,

1)" (http://www.nisa.meti.go.jp/earthquake/plant/1/plant-1.pdf), there were daily "Special Incident Reports (Nuclear Reactor Facilities)" (http://www.nisa.meti.go.jp/earthquake/plant/1/230617-1-1.pdf),

² http://www.jma.go.jp/jma/kishou/know/shindo/kaisetsu.html

³ Based on fieldwork conducted in the Aneyoshi District, Miyako, Miyagi Prefecture regarding upstream height by Tokyo University of Marine Science and Technology Professor Akio Okayasu. (The height of the tsunami going upstream on land, "Tsunami Reached 38.9 Meters," *Yomiuri shinbun*, evening edition, 2011/04/15).

http://www.meti.go.jp/press/20110311018/20110311018.pef) indicating "automatic shutdown."

⁵ Within "(1) Fukushima Daiichi Nuclear Power Plant" and the "Communication of Abnormal Conditions (communication methods for the reporting of reactor conditions and steps by company officials, etc., after the invoking of Article 10)" report data (Attached Data

situation became severe. In accordance with regulations outlined in Law on Special Measures Concerning Nuclear Emergency Preparedness, a nuclear state of emergency was declared at 7:03pm,⁷ and at 9:23pm orders to evacuate a three-kilometer area around the Fukushima Daiichi Nuclear Power Plant were given to local residents; residents within ten kilometers were ordered by the Cabinet Secretariat to take shelter indoors.⁸ Evacuation orders widened to include areas within 10 kilometers on the afternoon of March 12; after the explosion at Fukushima Daiichi Nuclear Power Plant's number 1 reactor unit at 3:36pm, the evacuation area was widened to 20 kilometers.⁹ Finally, at midnight on April 22, the area 20 kilometers around Fukushima Daiichi was declared a "Restricted Area," and entry was forbidden except in cases of emergency.¹⁰ (This report does not handle details regarding the disaster at the nuclear power plant, and instead leaves such matters to the experts.) The loss of control due to the tsunami at the Fukushima Daiichi Nuclear Power Plant, occurring immediately after the earthquake, did not cause nearby citizens to suffer "visible damage;" however, this third wave - namely, the "nuclear power plant accident" - created increased anxiety and fear of nuclear power in Japan as well as in the rest of the world.

The reality is that the Great East Japan Earthquake was a devastating calamity where earthquake, tsunami, and nuclear disasters struck in rapid succession. However, the disaster came to be known around the world, and as many as 146 countries¹¹ and countless individuals extended their hands to offer support to Japan in various ways; this is most likely not the entire scope of its impact.

(http://www.flickr.com/photos/mofaj_tohoku/collections/)

⁽first report at 3:42pm); this information is located in Nuclear and Industrial Safety Agency's report, "Regarding the announcement of report documents based on the Law on Special Measures Concerning Nuclear Emergency Preparedness, Article 10, sent by the Tokyo Electric Power Company" (published on July 24, 2011, http://www.nisa.meti.go.jp/oshirase/2011/06/230624-2.html)

⁶ An abnormal state of affairs was also reported at the Fukushima Daini Nuclear Power Plant.

⁷ http://www.kantei.go.jp/saigai/pdf/kinkyujitaisengen.pdf

⁸ Prime Minster's page, press release from the Chief Cabinet Secretary (Friday afternoon, March 11, 2011) "Regarding the order to evacuate citizens based on the Law on Special Measures Concerning Nuclear Emergency Preparedness" http://www.kantei.go.jp/jp/tyoukanpress/201103/11_p4.html

⁹ Chief Cabinet Secretary press release (Saturday, March 12, 2011, afternoon) "Regarding Fukushima Daiichi Nuclear Power Plant" http://www.kantei.go.jp/jp/tyoukanpress/201103/12_p2.html

¹⁰ Chief Cabinet Secretary press release (Thursday, April 21, 2011, morning) "Regarding the establishment of restricted area" http://www.kantei.go.jp/jp/tyoukanpress/201104/21_a.html

¹¹ The number of countries are published as pictures on the Ministry of Foreign Affairs flickr page, "Tohoku-Pacific Ocean Earthquake (MOFA, Japan)'s photostream" (http://www.flickr.com/photoc/mofai_tohoku/collections/)

During the disaster, the government and many news organizations used the Internet to offer information related to the Great East Japan Earthquake. In addition to the mass media, individuals entering damage-stricken areas to offer aid and earthquake victims themselves used digital cameras, video cameras, mobile phones and smart phones to create records; based on those many experiences and points of view, a vast number of text, images, videos, and data were uploaded to the Internet. The result of this is that, immediately following the earthquake, a channel of "information provided by individuals on the network" was opened as a different alternative to "regulated information." People around the world were able to choose the types of information they viewed through the Internet. Some of that information has already been permanently deleted; however, much information still remains on the Internet, taking the form of a naturally-created social archive that can be considered a sort of collective wisdom. Of course, there are cases of rumors being created from information offered by individuals in addition cases of conjectured or mistaken information creating anxiety, so it therefore cannot be stated definitively that unrestrained provision of information by individuals is entirely good. However, through the Internet and social networking services, diversified information can be distributed worldwide; a "wave of information transfer" can be seen taking place, varying widely from the circumstances of the 20th century. What would have happened had the same type of disaster occurred in the 1970's? There were no digital still cameras or digital video cameras; PC's were unable to easily record video and the Internet was underdeveloped; and, of course, there were no services like Google, Twitter, Flickr, YouTube or convenient tools like mobile phones and iPhones. In such circumstances, we cannot know how much room for information selection would be available for us.

According to data put out by the National Police Agency's Emergency Disaster Security Headquarters on March 11, 2012 - one year after the earthquake -15,854 people lost their lives in the earthquake in Hokkaido, Tohoku, Tokyo and Kanto; 26,992 people were injured and 3,155 people are still missing.¹² Those at the Fukushima Daiichi Nuclear Power Plant are currently working toward the resolution of the situation, and we can only wait for the publicizing of information and investigative research to clarify the entire scope of damages and effects. About

¹² National Police Agency's Emergency Disaster Security Headquarters, "2011 Tohoku Pacific coast Earthquake Disaster Conditions and Police Measures" (publicity document) http://www.npa.go.jp/archive/keibi/biki/higaijokyo.pdf

one month ago, on February 10, 2012, the Japanese government created a "Reconstruction Agency,"¹³ a step toward genuine reconstruction.

During that time, information related to the earthquake disaster is being produced and put out through various channels; at the same time, people's awareness of the earthquake is fading little by little, and there is a feeling of impatience. Even the memories of those that personally experienced the world changing in an instant are fading, albeit unconsciously. It is a difficult task to organize and comprehend all of the information related to the earthquake disaster. However, the recording of existing information related "The Great East Japan Earthquake and Library Facilities" ought to be one duty of the national library of a country that experienced such a large crisis. It is hoped that this report, while at the same time being a new record of the earthquake disaster for people to read, will also be useful as organized information for those with no knowledge of the earthquake disaster.

¹³ Based on the Reconstruction Agency Establishment Law (December 16, 2011, Law 125), formed as an agency under the cabinet. Temporary organization to be abolished on March 31, 2021.

9.1.4 Overview of the Great East Japan Earthquake (as of March 11, 2012)

	東日本大震災 (The Great East Japan Earthquake)	
Official Name	(Determined by the Cabinet Office, April 1, 2011)	
	<japanese> 東北関東大震災 東北・関東大地震 東北沖大地震 宮城・茨城沖大地震 東日本大地震 東北太平洋沿岸地震</japanese>	
Other Designations	3.11 < English > The Japan Earthquake The Tohoku Earthquake The Tohoku Japan Earthquake The East Japan Earthquake The Tohoku-Kanto Earthquake The Tohoku-Pacific Ocean Earthquake	
	There are cases where "Great" and/or "and tsunami" occur before and after these terms	
Earthquake Designation	平成 23 年(2011 年)東北地方太平洋沖地震 (The 2011 Off the Pacific Coast of Tohoku Earthquake) (Determined by the Japanese Meteorological Agency, March 11, 2011)	
Time and date of occurrence	Friday, March 11, 2011 – 2:46pm Japan Standard Time	
Scale	Magnitude 9.0 (the largest observed in Japan)	
Earthquake scale	7 (Observed in Kurihara City, Miyagi Prefecture)	
Hypocenter depth	24km	
Epicenter	38 degrees, 06.2 minutes north latitude, 142 degrees, 51.6 minutes eastern longitude (Sanriku Coast)	

Chart 9-2: General Overview:¹⁴

 $^{^{14}\,}$ "The date and time of the earthquake" below is taken from the Meteorological Agency's homepage, "Heisei 23 (2011) Great East Japan Earthquake"

 $⁽http://www.seisvol.kishou.go.jp/eq/2011_03_11_tohoku/index.html)$

Chart 9-3: Tsunami:

	Observed in 37 prefectures and metropolitan areas
	(other than inland prefectures, excluding all coastal
Taunami nanga	regions of Akita Prefecture and Fukui Prefecture). ¹⁵
Tsunami range	Abroad, waves of 1.02 meters to 2.47 meters were
	observed in the United States, Chile, Ecuador, Mexico,
	Polynesia, Peru, Tonga, and Papua New Guinea. ¹⁶
	16.7m (Shirahama Fishing Harbor, Ofunato City, Iwate
Record high	Prefecture. Estimated based on traces presented by the
	Japanese Meteorological Agency. ¹⁷)
Flood area ¹⁸	$561 \mathrm{km}^2$

(http://www.seisvol.kishou.go.jp/eq/2011_03_11_tohoku/tsunami_jp.pdf)

¹⁵ From the Meteorological Agency's "March 2011 Earthquake and Volcano Monthly Report (Disaster Prevention Edition)," charts 2-1, 2-2, 2-3,

¹⁶From the Meteorological Agency's "March 2011 Earthquake and Volcano Monthly Report (Disaster Prevention Edition)," fig. 2-7, Height of tsunamis reported at tide-gauge stations around the world (at highest point). (http://www.seisvol.kishou.go.jp/eq/2011_03_11_tohoku/tsunami_world.pdf)

¹⁷ From the Meteorological Agency's "Height of Tsunamis and its Effects (in the Cases of the 2010 Chilean Earthquake and the 2011 Great East Japan Earthquake)" (From the First Assembly for the Investigation of Current Standards of Tsunami Warnings and Information, document 2-2) (http://www.seisvol.kishou.go.jp/eq/tsunami_keihou_kentokai/kentokai1/siryou2-2.pdf).

¹⁸ From the Geographical Survey Institute's "Area Flooded by the Tsunami (Rough Order of Magnitude), (Fifth Report)" April 18, 2011. (http://www.gsi.go.jp/common/000059939.pdf)

Scale ¹⁹	Magnitude 5.0 and above $=602$ times; Magnitude 6.0	
	and above = 97 times; Magnitude 7.0 and above = 6	
	times	
Seismic intensity ²⁰	More than level lower $5 = 46$ times (On March 11,	
	2011, there were 10 aftershocks including level upper	
	6)	
	April 7, 2011, 11:32pm, a strong aftershock of level	
	upper 6; hypocenter, Miyagi Prefecture coast	
	Most recent aftershock - February 19, 2012, 2:53pm,	
	level lower 5; hypocenter, northern Ibaraki Prefecture	
Noteworthy items	Saturday, March 12, 2011, 3:59am - a magnitude 6.7	
	earthquake occurred in northern Nagano Prefecture;	
	hypocenter depth, 8km.	
	Level upper 6 on the seismic intensity scale was	
	observed at Sakae Village, Shimominochi District,	
	Nagano Prefecture. Sakae Village suffered serious	
	damage.	

Chart 9-4: Aftershocks (March 11, 2011 to March 11, 2012, main event excluded):

¹⁹ From the Meteorological Agency's Homepage, "Number of Aftershocks of the Great East Japan Earthquake," (http://www.seisvol.kishou.go.jp/eq/2011_03_11_tohoku/aftershock/).

²⁰ From the Meteorological Agency's "Earthquakes Observed over 5 on the Japanese Seismic Intensity Scale" (http://www.seisvol.kishou.go.jp/eq/2011_03_11_tohoku/i5.pdf)

Chart 9-5: Casualties:21

Fatalities	15,854 people	16,140 people
Missing	3,155 people	3,123 people
Injured	26,992 people	6,112 people
Evacuees	_	71,124 people

Chart 9-6: Building Damage:22

Destroyed buildings	129,107 structures	128,582 structures
Partial building	254,139 structures	244,031 structures
destruction		
Fires	(Completely	286 structures
	burned/partially burned)	
	281 structures	
Floods above floor level	20,427 structures	20,425 structures
Underground floods	15,503 structures	15,502 structures
Partial damage	691,728 structures	691,882 structures

Chart 9-7: Estimated Damage:23

Total amount of damage	Approximately 16.9 trillion yen
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²¹ The left column is from the National Police Agency Emergency Disaster Guard Headquarters' published materials, "Situation of Damage from the Heisei 23 (2011) Great East Japan Earthquake and Police Measures" (March 11th, 2012) (http://www.npa.go.jp/archive/keibi/biki/higaijokyo.pdf). The right column is from the Headquarters for Disaster Control's "Regarding the Heisei 23 (2011) Great East Japan Earthquake (Sendai Earthquake), 144th Report," (February 11th, 2012, 5:00 pm) (http://www.fdma.go.jp/bn/data/%E5%B9%B3%E6%88%9023%E5%B9%B4%EF%BC%882011%E5% B9%B4%EF%BC%89%E6%9D%B1%E5%8C%97%E5%9C%B0%E6%96%B9%E5%A4%AA%E5%B9 %B3%E6%B4%8B%E6%B2%96%E5%9C%B0%E9%9C%87%EF%BC%88%E7%AC%AC144%E5%A0 %B1%EF%BC%89.pdf)

²² As with the loss of lives columns, the left column is from the National Police Agency Emergency Disaster Guard Headquarters, and the right column is from the Headquarters for Disaster Control.

²³ From the cabinet office (in charge of disaster prevention) reporter's announcement of information, "Estimation of the Extent of Damage due to the Great East Japan Earthquake," (June 24th, 2011) (http://www.bousai.go.jp/oshirase/h23/110624-1kisya.pdf)

Reference #1: Miscellaneous

- Tremors occurred and damage was experienced over a wide area from Hokkaido to Kanto, but were particularly prevalent in Iwate Prefecture, Miyagi Prefecture, and Fukushima Prefecture.
- The capital city of Tokyo was assailed by level 5 tremors on the Japanese seismic scale.
- Large-scale ground liquefaction was seen in places like Urayasu City, Chiba Prefecture.
- The fact that there was very little direct damage to buildings from the shaking and comparatively few casualties or fires from building collapse is a special characteristic of this earthquake's tremors. (There were no fatalities in Kurihara City, Miyagi Prefecture, which experienced level 7 tremors on the Japanese seismic intensity scale.) But fatalities and the destruction of buildings were mostly due to the tsunami.
- The tsunami produced by the earthquake caused accidents at the Fukushima Daiichi and Daini Nuclear Power Plants.
- The earthquake, tsunami, and the nuclear power plant accident evacuated many people.
- In disaster-stricken areas, electric, gas, water and communication infrastructure was halted; most services were restored within one month.
- In a few weeks after the earthquake, in the metropolitan area, hoarding of food, water and masks occurred and gasoline was also deficient.
- Many strong aftershocks occurred, even after 1 year.

Chart 9-8: Reference #2: Comparison to the Great Kanto Earthquake and the Great Hanshin-Awaji Earthquake:

	Great Kanto Earthquake ²⁴	Great Hanshin-Awaji Earthquake ²⁵	Great East Japan Earthquake
Earthquake Designation	Taisho Kanto Earthquake	Southern Hyogo Prefecture Earthquake	Tohoku Region Pacific Coast Earthquake
Date of Occurrence	September 1, 1923 (Saturday)	January 17, 1995 (Tuesday)	March 11, 2011 (Friday)
Time of Occurrence	11:58am	5:46am	2:46pm
Epicenter	Northwestern Sagami Bay	Northern Awaji	Sanriku Coast
Earthquake Depth	—	16km	24km
Magnitude	M7.9	M6.9	M9.0
Greatest Vibration Intensity	7 (Odawara, Miura Peninsula, etc.)	7 (Kobe City, Hyogo Prefecture)	7 (Kurihara City, Miyagi Prefecture)
Fatalities		6,434 people	15,854 people
Missing	105,385 人	3 people	3,155 people
Building Damage (Complete/Partial)	160,306 structures	639,686 structures	1,074,974 structures
Destruction by Fire	212,353 structures	7,574 cases	281 structures
Disaster Characteristics	Occurred during lunchtime; Twin earthquakes; Combined disaster due to building collapses and fire	Occurred at dawn; Disaster caused by tremors; Casualties due to building collapse	Disaster due to large tsunami; Nuclear power plant accident

(http://www.fdma.go.jp/ugoki/h1509/03.pdf), Kajima Established "Special Edition: Understanding the Great Kanto Earthquake of 1923, study 1," *Kajima Monthly Report Digest*, September 2003

²⁴ From the Headquarters for Disaster Control, Disaster Prevention Department's "First Special Collection of Lessons Learned in the 80 Years since the Great Kanto Earthquake of 1923," Activities of Fire Departments, Issue 390, September, Heisei 15 (2003)

⁽http://www.kajima.co.jp/news/digest/sep_2003/tokushu/toku01.htm). According to the Kajima press release "According to the Kajima Kobori Research Complex's Research Results, the Scientific Chronology of the Great Kanto Earthquake of 1923 is revised for the first time in 80 Years," 2005/09/09 (http://www.kajima.co.jp/news/press/200509/9a1fo-j.htm)

²⁵ From the Fire Defense Agency's "Osaka/Kobe Great Earthquake of 1995 (Final Report), May 19th, Heisei 18 (2006) (http://www.fdma.go.jp/data/010604191452374961.pdf)

9.1.5 General Overview of Libraries in Japan (As of April 1, 2011)²⁶

Jurisdiction and Institution of Libraries:

Japan's national library is the National Diet Library. The Japan Library Association exists as an assembly of libraries that covers many facilities. The jurisdictions of domestic libraries are broadly divided among public libraries, university libraries and school libraries. Public libraries are managed by local governments, while libraries at universities, two-year colleges, technical colleges, and schools fall under the jurisdiction of incorporated legal institutions or the Ministry of Education, Culture, Sports, Science, and Technology. In addition, public libraries are divided depending on administrative districts - prefectures and metropolitan areas, ordinance-designated cities, cities, towns and villages. Each facility attached to local governments is under their jurisdiction; producing a network of prefectural-level libraries revolving around libraries established by prefectures and metropolitan areas.

Along with this vertical structure many library associations have been created in order to promote the horizontal cooperation and coordination among libraries – such as Japan Library Associations(JLA), associations classified by area, national or public/private, facility type, or theme. There are no sections at national organizations that unify all domestic libraries.

User Environment:

In Japan, the spread of the Internet is progressing and there is concern that young people are moving away from reading. However, people are generally exposed to books from the time they are children, and an environment of familiarity with books has been created through the elementary and middle school compulsory education curriculum. In addition, the population of internet users has been gradually increasing from the previous year, reaching 78.2% in 2010; even though

http://www.ndl.go.jp/jp/library/isil/index.html, and the Ministry of Education Elementary, Middle, and Preschool Student Division "Regarding the Results of the Heisei 22 (2010) 'Report on the Current Situation of Japanese School Libraries," June 1st, 2011

²⁶ This information taken from the Japan Library Association's Library Inquiry Commission's "Japan's Libraries: Statistics and Name Registry 2011," Japan Library Association, 2012, ISIL (The International Standard Identifier for Libraries and Related Organizations),

 $⁽http://www.mext.go.jp/b_menu/houdou/23/06/_icsFiles/afieldfile/2011/06/02/1306743_01.pdf), and from sources on the internet.$

the generational focus is on the age 13 to 49 demographic - whose internet usage exceeds 90% - the number of elderly internet users (over 70 years of age) is also increasing.²⁷ Within book circulation, a change can be seen in the management of booksellers that have existing shops due to the success of online booksellers like Amazon, the development of large-scale used booksellers, and the distribution of e-books. Within this situation, the creation of several new channels utilizing online booksellers as well as e-books via the Internet, seen from the point of view of "users" receiving information, can be perceived to be a widening of alternatives complying with the actual conditions of individual people.

Libraries in Society:

In such conditions, Japanese libraries are in the position of being responsible for part of the circulation of information; this label is widely recognized by the people. In this backdrop, libraries are being established in schools, regions and universities both big and small, and so it can be said that they are always nearby. Although the establishment rate of public libraries - prefectural and metropolitan, ordinance-designated city-level, special ward-level, and city-level - is near 100%, in fact there is a substantial decrease in the number of area library facilities due to urban concentration and the merger of towns and villages. A simple calculation of population and utilization statistics shows that, in one year, Japanese citizens visit public libraries approximately 2.27 times and borrow over 5.48 volumes of library material.²⁸ On the other hand, reference service of Japanese libraries have been pointed out that insufficient.²⁹ Hence Japanese libraries tend to focus on lending service.

Moreover, suffering the effects from the domestic economic slowdown, many libraries - regardless of the type of facility - are experiencing budget cuts. Through the partial revision of the Local Autonomy Law in June 2003, the introduction of the "designated manager system" for the management of public libraries became possible. Because of this, the contracting out of the management of public libraries

²⁷ From the Ministry of Internal Affairs' "Heisei 23 (2011) White Paper on Telecommunications" (http://www.soumu.go.jp/johotsusintokei/whitepaper/ja/h23/pdf/n4010000.pdf), Chapter 4, Section 1, pg 186-187 on the version for use on the internet.

²⁸ Calculated from the numbers provided by municipal, administrative, special ward, town and village sponsored libraries. Prefectural libraries are not included.

²⁹ The Ministry of Education"Meetings about future libraries" pointed out the problems of reference service in Japan, 2005http://www.mext.go.jp/a_menu/shougai/tosho/giron/05080301/001/003.htm、 http://www.mext.go.jp/a_menu/shougai/tosho/giron/05080301/all.pdf

(including the work of the library director) is proceeding apart from existing libraries that have already contracted out some business duties.

Chart 9	9-9:	General	Overview: ³⁰
	• • •		• • • • • • • • •

Total number of libraries	Over 39,780 facilities	
	(among these, 34,857 are school libraries)	
Total number of held materials	Over 1,112,682,670 items	
	(351,330,000 items at school libraries)	
Number of full time staff	Over 24,834 people	
	(6,759 people staffed full time at school libraries)	

Chart 9-10: Facility	Classification:
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National Library	The National Diet Library (NDL), established by the "National	
	Diet Law" (April 30, 1947; Law No. 79) and "National Diet	
	Library Law" (February 9, 1948; Law No. 5)	
	• Established Parent Organization: Legislative (the	
	National Diet)	
	• Established Number: Established 3 facilities - the Tokyo	
	Main Building (Tokyo), the Kansai-kan (Kyoto), and the	
	International Library of Children's Literature (Tokyo). In	
	addition, among government ministries and offices for the	
	administration of justice (the Supreme Court), there are 27	
	branch libraries and 7 annexes.	
	• In addition to aiding in the professional duties of Diet	
	members, the library provides a comprehensive collection	
	and bibliography of Japanese publications, and offers	
	library services for the Japanese people.	

³⁰ Taken from the total amount of school libraries, according to the "Japan Libraries Statistics and Registry of Names 2011," National Diet Library (Branch divisions included), Public Libraries, College Libraries (Short-term colleges, and trade school libraries included), and from the "Heisei 22 (2010) "Regarding the Results of the Heisei 22 (2010) 'Report on the Current Situation of Japanese School Libraries." In both cases, special libraries are not included.

Public Libraries	Libraries were established by local public bodies under the
	"Library Law" (April 30, 1950; Law No. 118)
	• Established Parent Organization: All public libraries
	belong to the boards of education of local governments
	(prefectural and metropolitan libraries exist under the
	boards of education of the various prefectures and
	metropolitan areas, while the parent bodies of municipal
	libraries are municipal boards of education)
	• Established Number: 3,210 facilities
	• The library establishment rate for Japanese local
	governments is 74.2% (national average); (the
	establishment rate for town and village libraries is 53.4%)
	• Established parallel to most Japanese administrative
	districts (prefectures and metropolitan areas,
	ordinance-designated cities, special areas, and
	municipalities)
University	Through the "University Establishment Standards" (October
Libraries	22, 1956; Ministry of Education, Culture, Sports, Science, and
Libraries	Technology Order No. 28), libraries for exclusive use were
	established within the organization and structure of
	-
	universities (national, public and private)
	• Established Parent Organization: Each university's
	corporate body (the Ministry of Education, Culture, Sports,
	Science, and Technology is responsible for the approval of
	university establishment)
	Established Number: 1,404 facilities
	• The establishment of libraries will have been decided "So
	long as there are special considerations, and when there is
	no observed hindrance to educational research."

Two-Year College	Through the "Two-Year College Establishment Standards"
Libraries	(April 28, 1975, Ministry of Education, Culture, Sports, Science,
Libraries	and Technology Order No. 21), libraries for exclusive use were
	established within the organization and structure of two-year
	colleges (national, public and private)
	• Established Parent Organization: Each two-year college
	(the Ministry of Education, Culture, Sports, Science, and
	Technology is responsible for the approval of two-year
	college establishment)
	• Established Number: 218 facilities
	• The establishment of libraries will have been decided, "So
	long as there are special considerations, and when there is
	no observed hindrance to educational research."
Technical College	Through the "Technical College Establishment Standards"
Libraries	(August 30, 1961; Ministry of Education, Culture, Sports,
	Science, and Technology Order No. 23), libraries for exclusive
	use were established within the organization and structure of
	technical colleges (national, public and private)
	• Established Parent Organization: Each two-year college's
	corporate body (the Ministry of Education, Culture, Sports,
	Science, and Technology is responsible for the approval of
	technical college establishment)
	• Established Number: 61 facilities
	• The establishment of libraries will have been decided, "So
	long as there are special considerations, and when there is
	no observed hindrance to educational research."
School Libraries	The "School Library Law" (August 8, 1953; Law No. 185)
	guaranteed the establishment of libraries at national, public,
	and private elementary, middle, and high schools
	• Established Parent Organizations: Each school (National
	schools are under the jurisdiction of university corporate
	bodies; public schools are under the jurisdiction of boards
	of education or the head of municipalities; private schools
	are under the jurisdiction of the educational institutions
	themselves)
	Established Number: 34,857 facilities

Private Libraries	Libraries regulated by the Japan Red Cross, general institute or
1 IIVate Libraries	
	foundation were established under the "Library Law" (April 30,
	1950; Law No. 118)
	• Established Parent Organization: The Japan Red Cross
	and various institute, foundations
	Established Number: 20 facilities
Diet Libraries/	Libraries and library rooms affiliated with the national
Council Library	parliament and local government councils. The national
Rooms	parliament (the Diet) library is the National Diet
	Library. Local government council libraries were guaranteed to
	be established under the "Local Government Law" (April 17,
	1947; Law No. 67)
	• Established Parent Organization: The National Diet has
	jurisdiction over the National Diet Library; the various
	local governments' council have jurisdiction over their
	council library rooms
Special Libraries	"Special libraries" are generally those libraries that have
1	various specialties and do not have legal regulations.
	• "Government office libraries and local assembly library
	rooms as well as libraries of private corporations, various
	organizations, universities, and survey research
	organizations" participate in the "Japan Special Libraries
	Association." ³¹
	 In addition, the following are also included: libraries of
	academic societies, associations and organizations;
	international organizations and libraries within foreign
	government bodies; art museum and museum libraries;
	and hospital libraries. ³²

³¹ Taken from the Association of Special Libraries' Homepage "Establishment Aims and History" (http://www.jsla.or.jp/1/11/11-2.html).

³² According to the "Health Care Law" (July 30th, Showa 23 (1984) Law Number 205), regional hospitals that are being financially supported are obligated to have libraries for health care providers. Libraries for patients are called Hospital Patient Libraries.

Other Libraries/	• Mobile libraries - Mostly a service by public libraries using	
Facilities Offering	bookmobiles to tour various regions; these are not separate	
Document	libraries	
Materials	• Braille libraries - Established by the Ministry of Health,	
	Labor and Welfare to offer audiovisual information to	
	disabled persons ³³	
	• Prison libraries - Library facilities established in	
	correctional institution such as prisons	
	• Hospital patient libraries - Special library for patients	
	that facility is established in hospital	
	• Community center libraries - Libraries established in	
	public halls and community centers; there are cases where	
	these spaces are public library annexes and book	
	distribution spots and, therefore, treated as libraries;	
	however, in most cases these are not considered libraries)	
	• Kindergarten libraries and libraries at special support	
	schools - In the "School Education Law," kindergartens and	
	special support schools are included in the definition of	
	"school," so it is natural that libraries would be established	
	in these facilities.	
	• To compensate for cases where geographic bias exists over	
	establishing libraries in areas where residential zones are	
	limited (such as mountain and coastal regions and very	
	wide areas dotted with inhabitants), materials have been	
	placed in facilities such as town halls, fishery cooperatives,	
	and agricultural cooperatives, giving these places the	
	status of libraries or library rooms.	

³³ As established by the "Disabled Persons Welfare Act" (December 26th, Showa 24 (1985) Law Number 213).

9. 2 Outline of the Report

9.2.1 The State of Damage

9.2.1.1 An Overview of the damage to cultural institutions

Based on information from the Ministry of Education, Culture, Sports, Science and Technology (hereafter, MEXT)³⁴, there were a total of 885 human casualties at MEXT-related facilities (644 fatalities and 241 injuries) and 89 people are still missing. Cases of fatalities and missing persons were mainly centered in the three prefectures that experienced the worst of the earthquake's violent tremors and tsunami (Iwate, Miyagi and Fukushima), while injured victims were spread throughout 11 prefectures and metropolitan areas.

The majority of these victims were persons connected to educational facilities (national, public and private schools) - namely children, students, educational staff, etc. Among these victims, there were 638 fatalities and 229 injuries. There were 4 fatalities and 11 injuries at social educational facilities, physical educational facilities, and cultural facilities (libraries, community centers, sports facilities, museums, etc).

In addition, 12,150 cases of physical damage occurred at MEXT-related facilities. The majority of these incidents occurred at national, public and private school facilities, with damage occurring at 7,988 schools, while 3,397 cases of physical damage occurred at social educational, physical educational and cultural facilities. As for libraries, damages to 251 facilities have been reported to MEXT³⁵.

9.2.1.2 An Overview of Affected Libraries

Chart 9-11 shows the 251 library facilities considered physically damaged in MEXT's survey, illustrating 11 conditions in each prefecture. MEXT data describes the following conditions of major damage: "The collapse and burning of school buildings and gymnasiums; inundation, submerging, or flooding due to the tsunami; land subsidence; cracks on or difference in the leveling of school buildings; outer wall or ceiling collapse; outer wall cracking; glass damage; etc." However, with

³⁴ Ministry of Education, Culture, Sports, Science and Technology - "Information on Damage from the Great East Japan Earthquake (184th Report)," 2 March 2012:

³⁵ Ministry of Education, Culture, Sports, Science and Technology (13 October 2011)

regards to library facilities, in addition to the aforementioned types of damage, it is assumed that damage such as "books and materials being thrown down," "the destruction of bookshelves," and "damage to glass cases" may also be included.

Region	Social Educational, Physical Educational and Cultural Facilities	Library Facilities
Iwate Prefecture	372	16
Miyagi Prefecture	654	25
Fukushima Prefecture	530	21
Ibaraki Prefecture	521	39
Tochigi Prefecture	272	32
Gunma Prefecture	125	4
Saitama Prefecture	190	23
Chiba Prefecture	224	23
Tokyo	224	46
Kanagawa Prefecture	78	10
Other regions	207	12
Total	3,397	251

Chart 9-11: Number of Library Facilities Reporting Physical Damage

Source: Ministry of Education, Culture, Sports, Science and Technology (13 October 2011)

It is necessary to consider carefully the following points regarding the effects of the recent earthquake on libraries and other facilities:

- •In addition to the main event on March 11, the aftershock on April 7 also caused great damage to library facilities, equipment, books and materials.
- In general, there is a tendency to focus on damage along the Pacific Coast caused by the tsunami; however, earthquake damage to public facilities further inland was also severe.
- •In Fukushima Prefecture, the impact of the nuclear accident at the Fukushima Daiichi Nuclear Power Plant - such as residents being unable to return to their homes - is still being felt.
- •The nation continues to suffer effects from the disaster, such as the continued brownouts that have been imposed since the onset of planned power outages immediately following the earthquake.

This section will continue a summary based on surveys compiled by each prefecture's prefectural library concerning each library's damage situation. They also include information about reopening of affected libraries. Even if a facility has reopened, there are still instances where business hours and services offered are limited. However, while "operational" does not necessarily mean "restored," it still may be considered a criterion for restoration. In addition, for regional libraries, reopening may also be understood as a sign of the intention of library staff toward restoration and the wish to promptly restore library user services.

The following sections describe conditions at affected library facilities in particularly damaged areas (such as Iwate, Miyagi, Fukushima, Ibaraki, Chiba, and other municipalities), detailing human causalities and physical damage such as damage to facilities, equipment, library books and library materials.

9.2.1.3 Situation of Affected Libraries in Iwate Prefecture

(Human Casualties)

In regards to human casualties, all seven staff members at Rikuzentakata City Library were either killed or are still missing, while at Yamada Town Library, one staff member was killed.

(Physical Damage - Facilities and Equipment)

Regarding physical damage sustained by public library facilities and equipment, other than those buildings washed away by the tsunami and considered "total losses," damage such as "cracks in walls, pillars, window glass, etc," "the crumbling of outer wall tiles," "the collapse of a part of ceiling ," and "the destruction of plumbing attached to heating radiators," has been reported.

As for university libraries, out of 11 institutions, 4 reported damage such as "cracks in buildings," "smashed glass doors in entryways," "the collapse of fluorescent lighting tubes," and "partial ceiling collapse and/or cracks in floors and pillars."

There is currently no detailed data regarding school libraries other than a partial survey conducted by MEXT. According to that survey, out of all 664 school facilities in Iwate Prefecture, there are still two schools that have library rooms that are unable to be used as of October 2011. In addition, according to a survey conducted by the National School Library Association (SLA) in October 2011, which received responses from 30 schools in the prefecture, there are 10 schools where library facilities are of a condition that reconstruction is necessary, and four schools that experienced damage and/or flooding but are nonetheless presumed to be still functional.

(Physical Damage - Library Books, Materials, etc.)

As for damage to public library books and materials, most facilities sustained damage such as falling books, CD's, videos and other materials, the toppling of bookshelves and damage to glass cases; only 8 out of 57 total facilities (14%) reported "no damage."

Out of 11 university libraries, only two facilities reported "no damage" to books and materials; all remaining facilities reported such issues as "falling books from bookshelves in both open-access and closed-access collections," "falling books and partial bookshelf collapse," or "as many as half of all books came down."

According to the survey by SLA, as of October 2011, 8 school libraries reported "no usable books."

Chart 9-2 shows a summary of public libraries that suffered heavy damage.

Chart 5-12. Heaving Damaged Public Libraries (Iwate Prefecture)	
Complete destruction of	Rikuzentakata City Library
facility (Tsunami):	Otsuchi Town Library
	Noda Village Library
	Ofunato City, Sanriku Community Center Library Room
Libraries with heavily	Kitakami City Central Library
damaged buildings:	Ichinoseki City , Ichinoseki Library
	Hiraizumi Town Library, etc.
Libraries where large	Kamaishi City Library
quantities of materials were	Oshu City Isawa Library, etc.
affected by damaged	
facilities:	

Chart 9-12: Heavily Damaged Public Libraries (Iwate Prefecture)

Source: Toshokan Iwate, October 2011: No. 169

9.2.1.4 Situation of Affected Libraries in Miyagi Prefecture

(Human Casualties)

As for human loss, the director of the Minamisanriku Town Library was reported killed; one temporary staff member working at Ishinomaki City Library remains missing.

(Physical Damage - Facilities and Equipment)

Extensive physical damage reported by public libraries includes damage to

entryways due to inundation and the washing away of buildings by the tsunami; the washing away of or general flood damage to library books and materials; warping, creaking, and cracking of whole buildings; land subsidence; damage to walls and pillars such as cracks, fissures or total collapse; ceiling collapse; the breaking of window or entryway glass; and cracks to building annex connections.

Similarly grave damage was also reported at university libraries. According to a survey conducted by the Tohoku District University Library Council, damage reported to buildings and facilities includes cracks in pillars or wall surfaces and outer wall collapse; peeling and other damage to ceilings; glass damage; the dropping of computers; bookshelves overturning or collapsing; and stains or leaks caused by broken pipes above the ceiling.

As for school libraries, according to the aforementioned MEXT survey, as of October 2011, out of 764 schools in Miyagi Prefecture, 20 schools (2.6%) are still unable to utilize their library rooms; out of the three prefectures targeted in this survey, Miyagi Prefecture has the most schools with unusable library facilities. In addition, according to a SLA survey covering 230 schools, 34 schools (14.8%) reported "repair/reconstruction is needed."

(Physical Damage - Library Books, Materials, etc.)

Damage to library books and materials at public libraries included the damaging or toppling of bookshelves and bookcases at most institutions, while all institutions reported the toppling and scattering of books and materials. At the Miyagi Prefectural Library, "nearly all 1,050,000 items" fell during the main quake and "half fell" during aftershocks, illustrating the severity of these aftershocks.

University libraries also reported the toppling of library books and materials on the scale of thousands to tens of thousands of items, though few volumes were damaged by water leakage or falling.

According to an October survey by SLA, among school libraries, 17 schools (7.4%) reported "no usable books" or "few usable books."

Chart 9-3 shows a summary of heavily damaged public libraries.

Complete	Minamisanriku Town Library	
destruction of	Onagawa Town Lifelong Educational Center (Community Center	
facility (Tsunami):	Library Room)	
	Ishinomaki City Library, Ogatsu Annex	
	Ishinomaki City Library, Kitakami Annex	
Level of danger	Natori City Library	
deemed to be high:	Shichigahama Book Center (Community Center Library Room)	
	Wakuya Community Center, Wakuya Town	
Severe damage to	Kesennuma City, Kesennuma Library (2 nd floor portion,	
facility, etc.:	foundation)	
	Tome City, Hasama Library (land sinkings, dislocation of portions	
	of building additions, beam collapse, etc.)	
	Tome City, Tome Library (bookcase damage)	
	Tagajo City Library (numerous building cracks, etc.)	
	Kakuda City Library (bookcase damage)	
	Sendai City, Izumi Library (walls, glass, etc.)	

Chart 9-13: Heavily Damaged Public Libraries (Miyagi Prefecture)

Source: Miyagi Prefectural Library, "A Record of the Effects of the Great East Japan Earthquake and Restorations at Miyagi Prefectural Libraries": September 2011 (Tentative Version)

9.2.1.5 Situation of Affected Libraries in Fukushima Prefecture

(Human Casualties)

Human causalities have not been reported.

(Physical Damage - Facilities and Equipment)

In regards to damage affecting public library facilities and equipment, 26 facilities (40.6%) out of 64 facilities reported "no damage." At other facilities, reported damage included damage to air conditioning and electrical equipment, loosened stone at entryways, damage to lighting equipment and tempered glass, land subsidence, ground cave-ins and a wide range of falling objects - from building foundations to roofs, ceilings, walls, floors, window glass and equipment, as well as air conditioning ducts from ceilings.

Only 2 university libraries out of 11 reported "no major damage." Other institutions, like public libraries, reported such damage as liquefaction around buildings, partial cracked walls, ceiling and floor surfaces, rising floor surfaces on ground levels, and damage to lighting equipment and computers.

According to MEXT's October 2011 survey (targeting 850 schools), 45 schools (5.3%) are still conducting classes through the "utilization of other schools/other facilities" as school buildings. As for library rooms, 12 schools report a condition of "unusable" library rooms.

(Physical Damage - Library Books, Materials, etc.)

There is still some uncertainty as to how many public library facilities experienced damage to library books and materials, but facilities indicating "no damage" does not exceed 11 facilities out of 64 total. However, responses ranging from "the falling/scattering of 90% of materials" to "a portion of materials fell" show that most facilities suffered from damage consisting of "falling and scattering" of materials.

At all university libraries facilities, "140,000 volumes," "60,000 volumes," "50,000 volumes," etc., fell and were scattered, and because of this were physically damaged or suffered water damage.

As for school libraries, according to an October survey by SLA on the condition of library collections at school libraries in Fukushima Prefecture (159 total respondents), 14 schools (8.8%) indicated that there were "few" or "no usable books."

There are 6 public libraries in Restricted Area, which is within 20 km of the Fukushima Daiichi Nuclear Power Plant, and entry to those libraries has been prohibited. Chart 9-4 shows public libraries in Restricted Area.

Facilities in Restricted	Minamisoma City, Odaka Library
Area (the area within 20km	Okuma Town Library
of the Fukushima Daiichi	Futaba Town Library
Nuclear Power Plant)	Namie Town Library
	Tomioka Town Library
	Naraha Town Community Center Library Room

Chart 9-4: Public Libraries in Restricted Area

9.2.1.6 Situation of Affected Libraries in Ibaraki Prefecture

(Human Casualties)

At Ibaraki Prefectural Library, a security guard helping library guests to find shelter suffered a minor cranial injury due to falling objects from the ceiling.

(Physical Damage - Facilities and Equipment)

Much damage to public library facilities was reported, such as damage to ceilings, light covers, boilers, and water pipes; more notable damage beginning with Ibaraki Prefectural Library's "ceiling collapse and other heavy damage to facility," included "the cracking of entrance tile due to land subsidence," "protuberance or collapse in front of buildings," "sinking portions within buildings," "cracks in portions of building foundations," land fissures and liquefaction in the surrounding areas," and "tsunami waves reaching the parking lot."

As for university libraries, only two facilities out of 13 reported no damage; reports such as "cracks in walls and ceilings, "falling roof tiles, and "water leaks in 80% of the facility" illustrate the severity of the earthquake's vibrations.

Compiled data/information regarding school libraries has not been found, so it is difficult to provide a detailed account of damage conditions. Nevertheless, MEXT's survey shows damage to 1,290 "school facilities" in Ibaraki Prefecture - the most in the nation - so it is easy to imagine that a large number of school library facilities experienced damage.

(Physical Damage - Library Books, Materials, etc.)

At public libraries, in addition to the collapse of or damage to bookshelves, most facilities reported the falling or scattering of books such as "250,000 volumes, "nearly all bookshelves," "more than 80%," and "20,000 volumes." Damage to library books, documents and audiovisual materials are also reported.

In addition, all 13 university libraries reported damage conditions such as water damage to, and the falling and scattering of books and materials.

As for school library facilities, no detailed data was found.

9.2.1.7 Situation of Affected Libraries in Chiba Prefecture

(Human Casualties)

There have been no reports of human casualties.

(Physical Damage - Facilities and Equipment)

Regarding public libraries, 22 institutions reported damage to library facilities and equipment. Beginning with Chiba Central Prefectural Library's report of "damage to window glass in 21 places; a great number of concrete chips fell," reports of damage include cracks in buildings, water tanks and parking lots; ground protuberances/depressions around buildings, protuberances/depressions in plazas and parking lots due to liquefaction, in addition to other serious damage.

As for university libraries, while a survey by the Japan Association of National University Libraries (JANUL) reports incidents like the falling of books in some libraries, detailed information about damage to buildings have not been found. Nevertheless, it may be assumed that university libraries, like public libraries, took damage.

Compiled data regarding damage conditions and operating conditions at school libraries has not been found.

(Physical Damage - Library Books, Materials, etc.)

Looking at books and materials, in addition to the shaking or tumbling of bookcases and bookshelves, serious damage such as "as many as 12,000 volumes fell," "75,000 volumes of both open- and closed-stack fell," "170 volumes were damaged," and "around ten bookshelves were damaged" was reported.

As for university libraries, damage conditions such as the falling and scattering of books and materials are reported by JANUL and other organizations.

Compiled data on the damage condition of school libraries has not been found.

9.2.1.8 Situation of Affected Libraries in Other Municipalities

Tochigi Prefecture

Data from MEXT quoted at the beginning of the section shows, 32 libraries in Tochigi Prefecture suffered physical damage secondary only to the Tokyo Metropolitan Area and Ibaraki Prefecture. However, compiled data regarding damage conditions of all public libraries within the prefecture has not been found. As for data regarding affected conditions, Tochigi Prefectural Library has compiled "Trends of City and Town Libraries" (8 September 2011), whose data shows that 8 facilities such as Tochigi City's Fujioka Library, Oyama City Central Library, and Karasuyama library of Nasukarasuyama City suffered building damage due to the earthquake. The data also states that repair work is underway.

As for damage conditions at university libraries in the prefecture, the survey by JANUL reports the status at Utsunomiya University Library as of 16 March 2011. As for private universities, the survey conducted by the Japan Association of Private University Libraries (JASPUL) has not yet been made available.

As for school libraries, no detailed data was found.

Tokyo Metropolitan Area

According to MEXT data quoted at the beginning of this section, there were 46 libraries in the Tokyo Metropolitan Area that experienced physical damage. It can only be assumed that a great number of libraries suffered damage, however data on damage conditions at all public libraries in Tokyo has not been found.

In addition, other than surveys on damage conditions conducted by organizations such as the Japan Association of National University Libraries for their affiliated institutions, data regarding damage conditions at university libraries within Tokyo is also unavailable.

As for school libraries, no detailed data was found.

9.2.2 Activities Supporting Reconstruction

9.2.2.1 Salvaging Damaged Materials

(General Situation)

In areas struck by the disaster, along with rescuing and preserving at-risk materials (books, valuable documents, etc.) held by libraries that were damaged by the earthquake and tsunami, support activities such as the cleaning and restoration of stained or water-damaged materials are also taking place. At the Agency for Cultural Affairs, the "Project to Preserve Cultural Assets Affected by the Tohoku Pacific Coast Earthquake (The Cultural Property Rescue Program)" and, in cooperation with various related agencies, is carrying out the preservation of personal cultural property and works of art deemed affected cultural assets.

(Chief Projects)

The principle project includes activities such as: the Iwate Prefectural Museum's preservation of ancient writings previously held by Rikuzentakata City Library; the rescue by the Network for Historical Materials of old Japanese books held by Miyagi Prefecture Agricultural High School; the Kanagawa University Institute for the Study of Japanese Folk Culture's preservation of materials from Kesennuma's Oshima Fisherman's Cooperative Association; the National Archive of Japan's project aiding the restoration of Miyako City's damaged official documents; the National Diet Library's project aiding the preservation of local materials held by the Noda Village Library in Iwate Prefecture; and the preservation by the Gunma Prefectural Archives of Onagawa Town's damaged official documents.

As for the preservation of regional materials, a "request for the preservation of historical records" has been advertised to the public, and, in addition to the Network for Historical Materials already having started work on the preservation of regional materials, each area has witnessed preservation activities by historical research volunteers.

(Sponsoring Techniques for the Restoration of Flood-Damaged Materials)

Because special techniques are necessary in the restoration of paper materials stained or damaged by sea water, the Tokyo Document Recovery Assistance Force - a volunteer organization of specialists with the aim of supporting the restoration of print material - was established to help sponsor the utilization of techniques such as drying and flattening in various regions. Moreover, many academic research organizations, corporate business, etc., have offered their support toward the recovery of materials by providing information related to the preservation and restoration of flood damaged materials, holding seminars and lectures on the topics pertaining to the recovery of damaged materials, and offering equipment used for refrigeration, dehydration, and sterilization.

In addition (though this cannot be considered direct support to library facilities themselves), as a related activity to the recovery of damaged print materials, activities such as campaigns for the preservation and restoration of cultural assets as well as the digitization and restoration/recovery of damaged or stained photographs are also being conducted.

9.2.2.2 Support for the Restoration of Libraries and Reading Environments in Stricken Areas

(General Situation)

With an emphasis on libraries and schools that lost their book collections in the disaster as well as shelters and temporary housing where reading environments are not being maintained, support activities geared at the restoration of libraries and reading environments in disaster-stricken areas (such as the establishment of bookmobiles and temporary libraries and the offering of e-books) are being carried out nationwide by a number of advocates - municipalities, libraries, businesses, groups, and individuals. Particularly frequent are activities geared toward children, such as the donation of picture books and the establishment of children's libraries as well as book reading activities. In addition, the Japan Library Association has established a project called "Help-Toshokan" to develop a wide range of support activities designed to maintain reading environments and restore libraries in damage-stricken areas - activities such as reading books aloud, facilitating book donations to libraries, and volunteer training and dispatch.

(Book Donation Activities)

Beginning with the establishment at the end of March of the Japan Committee For UNICEF project "Little Libraries" as well as the Tono Cultural Research Center's book donation activities and the "Everyone's Library" project begun by citizens' groups, a great number of support activities have been established by municipalities, publication organizations, and various groups and individuals. There are many recruiting methods and selection requirements, and many connected examples such as the establishment of temporary libraries and book donation activities as well as bookmobiles. In addition, in order to avoid discrepancies such as disagreements over most-needed book donations and the lack of a prearranged system of acceptance locations, the Japan Library Association and the National School Library Association are conducting support activities such as the survey of demand for book donation and the arrangement of volunteer to organize donated books.

(Bookmobiles)

In areas where libraries suffered catastrophic damage, support activities designed to get bookmobiles active are taking place. Shanti International Volunteer Association's "Bookmobile through Iwate Project" and Toppan Group's "Bookwagon" are representative examples. In addition, other activities are taking place such as book donations from private companies for bookmobiles, and lending/donation of bookmobiles between municipalities such as Higashiomi City in Shiga Prefecture and Rikuzentakata City in Iwate Prefecture, as well as between Kumamoto City and Higashimatsushima City in Miyagi Prefecture.

(Temporary Libraries)

Located in Iwate Prefecture, both "Small House" and "Rainbow Library" (a house trailer and a newly built wooden structure, respectively), as well as "Natori City's Donguri Children's Library " (Miyagi Prefecture) which utilizes disaster reconstruction emergency housing, are all representative temporary library projects. A temporary library has also been established in Minamisanriku Town, Miyagi Prefecture - where the library building was destroyed by the tsunami. In addition, there are related activities establishing bookshelf and library space in shelters and temporary housing: projects such as the library room at Big Palette in Koriyama City, Fukushima Prefecture, Miyagi Prefecture's "Onagawa *Chakkoi* Picture Book Library," Higashimatsushima City's "Small Library," and Shanti International Volunteer Association's "Iwate Book Drop."

(E-Books)

As opposed to print material, e-books - which do not take up space and

require no delivery - can also be utilized to maintain reading environments in disaster-stricken areas, such as the Japan Magazine Publishers Association's use of multipurpose portable terminals to offer electronic magazines in Ishinomaki City, Miyagi Prefecture.

9.2.2.3 Support of Stricken Areas Through Library Services

(General Situation)

Libraries in all areas are offering support to disaster-stricken regions through library services by providing information through their websites, offering reference and copy services, providing e-book and database access, relaxing the terms of service for disaster victims, and exhibiting materials related to the earthquake disaster.

(Supplying Electronic Content)

For a fixed period after the earthquake, foreign and domestic publishers along with academic organizations announced that they would offer access to paid electronic journals and the exhibition of e-books, magazines and articles for disaster stricken areas where obtaining actual materials was difficult. University libraries in various areas also offered electronic content to students and researchers in disaster-stricken areas.

(Supplying Reference Services)

At public libraries in various regions, reference services by mail for disaster-stricken areas and temporary remote file copy services are taking place. In addition, "Everyone, Everywhere Library Q&A" - a reference desk service through the Internet staffed by library volunteers - has been established. A point warranting special mention are the Japan Library Association's efforts in obtaining the cooperation of copyright holder organizations regarding temporary limits on the public transmission rights of published material for the provision of information to disaster-stricken areas.

(Services Provided to Evacuees in Other Prefectures)

For those evacuated from disaster-stricken areas, many public and university libraries in various regions are implementing measures aimed at relaxing limits on use; in addition, public libraries are offering paid subscriptions to and web browsing of newspapers from disaster-stricken areas for people evacuated to other prefectures.

(Provision of Information Regarding the Disaster)

Beginning with the National Diet Library's "Reconstruction Assistance after the Great East Japan Earthquake" website and Iwate Prefectural Library's "Great East Japan Earthquake Information Portal," many libraries are offering special web pages with links to relevant data and information in order to provide news related to the earthquake disaster. In addition, many libraries established display corners immediately following the earthquake in order to exhibit materials related to earthquakes, tsunamis and nuclear power; including small-scale display corners, over the past year there have been countless exhibitions on the Great East Japan Earthquake, the culture and history of disaster-stricken areas, the plight of disaster-stricken regions, and disaster prevention.

(Fundraising Activities)

Various fundraising activities distinct to libraries are taking place, such as Hannan University Library's "Raising Funds Through Reading" - which donates to disaster-stricken areas through the number of books borrowed..

9.2.2.4 Internet Portal Sites for the Supporting Affected Libraries

Established with the goal of supporting affected cultural institutions, "saveMLAK" utilizes volunteers from all over the country who are concerned with supporting the reconstruction of cultural institutions in damage-stricken areas. While at the same time offering the latest information regarding the damage/restoration conditions of libraries and support activities in damage-stricken areas, "saveMLAK" has become a platform for reconstruction support activities for all cultural institutions - museums, archives and community centers (*kominkan*), as well as libraries.

In addition, reconciliation between the needs of damage-stricken areas and aid from supporters is taking place through websites such as the Japan Library Association's "Great East Japan Earthquake Library Support Window," and MEXT's "Internet Portal to Aid Child Learning."

9.2.3 Activities Preserving Records and Experiences

9.2.3.1 The Collection and Preservation of Physical Documents

Documents related to the earthquake disaster are being collected at libraries in damage-stricken areas in Iwate Prefecture, Miyagi Prefecture, Fukushima Prefecture, etc., for the purpose of bequeathing records of the earthquake disaster to posterity. A wide range of materials are being sought after: Photograph collections, collections of records, written reports, municipal PR brochures, wall posters, leaflets, free newspapers, and notes from individual people, in addition to publications related to the earthquake disaster. Exhibitions such as Iwate Prefectural Library's "Earthquake Disaster Corner," are beginning to exhibit collected materials. In addition, lists of materials related to the earthquake disaster are on display at many libraries.

9.2.3.2 Earthquake Disaster Digital Archives

In addition to photographs, films, writings, and audio recordings, projects seeking to collect, publicize and preserve for posterity digital data related to the earthquake - such as internet web pages and blogs - are being conducted by both foreign and domestic agencies. Some chief projects include: the National Diet Library's preservation of related websites; the initiation of the internet archives at Harvard University's Edwin O. Reischauer Japan Research Institute; the Disaster Prevention Science and Technology Research Institute's "311 Complete Archives;" Tohoku University Disaster Control Research Center's "*Michinoku Shinrokuden*;" Google's "Remembrance for the Future;" Yahoo! Japan's "Great East Japan Earthquake Photo Preservation Project;" and Sendai Mediatheque's "March 11 *Wasurenai* Center."

"The Basic Policy on Reconstruction from the Great East Japan Earthquake," put forth by the Reconstruction Task Force in July 2011, clearly stipulates "support for the collecting/publicizing/preserving of records and lessons learned from the earthquake, tsunami and nuclear disasters" and "the construction of a universally accessible, unified system of preservation/utilization and the wide-ranging, foreign and domestic transmission of information." Progress has been made by moving towards a system of the retrieval/utilization of a sea of digital archives in a unified manner; for example, the Ministry of Internal Affairs and Communications has started "The Great East Japan Earthquake Basic Construction Project," holding an international symposium that brought together both foreign and domestic officials affiliated with digital archives of the Great East Japan Earthquake.

9.2.3.3 Miscellaneous

Activities designed to prepare for future disasters are also being conducted, such as initiatives aimed at digitizing valuable documents held by libraries and preserving them in the digital cloud; the creation of guidelines and manuals by libraries on coping with earthquakes; and organizations entering into bilateral cooperation agreements regarding the preservation of materials should another disaster occur. At the present time, though there are still only a few initiatives overall dealing with disaster prevention and disaster support, hereafter, it is expected that various agencies will develop new projects.

9.3 Reference: Thing Learned from this Survey

For this report, I know that the best way for discussion and analysis is left to the people of posterity. However, please forgive me to be mentioned about some topics here. (The following is written by Yoshiyuki Kanematsu: the Kansai-kan of the National Diet Library, Library Support Division.)

9.3.1 Topics

Damage to Libraries from the Earthquake Disaster:

The earthquake that triggered the Great East Japan Earthquake disaster produced violent tremors over a wide area and a giant tsunami. Because the earthquake occurred in the middle of the day on a weekday (Friday), most libraries were open for business.³⁶ The result of this was that, in addition to the materials of some libraries, some library users and library staff also fell victim to the disaster.

Tremors in inland areas in the Tohoku area were severe, and buildings there suffered heavy damage. In addition, earthquake tremors were felt over a wide area; even in Tokyo - over 370 kilometers away from the hypocenter - observed seismic intensity levels of upper 5. The result of this was that an unprecedented 1,800,000 volumes contained in the archives of the National Diet Library Main Building in Tokyo fell from their shelves.³⁷ Naturally, libraries in damage-stricken areas suffered similarly, becoming like seas of books when volumes inside their facilities fell. Bookshelves and offices supplies also tumbled over and scattered. (There are reports of shelves where library materials fell and shelves where materials did not fall within the same facility, depending on the direction of the tremors.) Particularly, there were many library buildings with a large amount of glass that were unable to replace damaged glass, thus affecting the reestablishment of services later on. In addition, scars remain at various libraries in inland areas that suffered damage such as peeled walls, cracked pillars, broken furniture, and equipment damage. Fortunately, however, there are few reports of

³⁶ Many of Japan's public libraries are closed on Mondays.

³⁷ The National Diet Library's main building in Tokyo was constructed to be earthquake resistant. Most of the items that fell were on the upper floors, with more items falling on higher floors. In comparison, no items fell in the underground floors. The replacing of items on the shelves of the library was done in waves by employees of the library, and was completed, from start to finish, by the end of March.

people being injured inside library facilities due to building damage. Among libraries in disaster-stricken regions, libraries such as Ofunato City Library (Rias Hall) became a place of refuge for victims. These circumstances are thought to be the result of the revision of the 1981 Building Standards Act and the 2000 Building Standards Act resulting in architecture (unique in a country like Japan, where earthquakes are common) resistant to earthquakes; the characteristics of the earthquake tremors; and the fact that the hypocenter was not directly below.

The tsunami is the reason that such terrible damage was inflicted on people, buildings, and materials. More areas were hit by the tsunami and suffered far more damage compared to areas damaged by the earthquake tremors. However, the most prominent feature of tsunami damage is thought to be " water of such height and force that people could not escape rushed in, and people, buildings and materials were mercillessly washed away, carried in a jumble into the sea." Within the tsunami there was the "leading wave" that washed ashore and the "drawback" waves that returned to sea. Objects destroyed and carried away by the leading wave were mixed with people swept up by the waves; it is said that, more than this destruction from the leading wave, the most terrifying thing was the drawback that carried all of this back to the sea with great force. In reality, in damage-stricken areas hit by the tsunami, only small amounts of rubble and house foundations remained; people and objects "disappeared." Libraries were no exception, as seven libraries in coastal regions were swallowed up by the tsunami. Only some walls and pillars remained; buildings were totally destroyed and all materials and equipment were washed away. The Minamisanriku Town Library building itself was completely washed away. Even more unfortunate, all reports of human casualties among librarians and library users were due to the tsunami. There is no way to tell for certain how many library users were sacrificed in the tsunami because it left no traces of people. According to hearsay, at Rikuzentakata City Library, users and library staff took refuge at a nearby gymnasium after the earthquake. However, that gymnasium - where nearly 300 people had taken refuge - was struck by the tsunami, and it is said only 3 people survived. Unfortunately, all 7 staff members of Rikuzentakata City Library, one staff member at Yamada Town Library, the director of Minamisanriku Town Library, and one temporary staff member at Ishinomaki City Library - a total of 10 people - were lost (still missing or deceased) in the Great East Japan Earthquake.

Libraries and the Nuclear Power Plant Accident:

Because of the accident at the Fukushima Daiichi Nuclear Power Plant, an area within a 20-kilometer radius was declared a Restricted area, and even now cannot be entered. There are six public libraries within this area; unfortunately, they are unable to be approached. The condition of the scattered materials within these libraries can only be guessed. To begin with, there is the problem of whether or not library facilities and materials can be decontaminated, but for now nothing can be done. These libraries are very rare case in the world that have been left in difficult circumstances such as these.

Factors Affecting Library Reconstruction:

Disaster-stricken regions were assailed by three waves of catastrophe - first wave, "Tremors;" second wave, "Tsunami;" third wave, "Nuclear Accident - and when, little by little, information regarding the confusion of the disaster became clear, people looked towards reconstruction and sprang into action. However, there are still a great number of waves preventing people from continuing to rebuild.

The 4th wave was the "Disruption of Infrastructure," such as electricity, gas, sewage, and water infrastructure; telephone, mobile phone, and internet communication lines; and gasoline provision and traffic networks. Excluding coastal areas where facilities were lost because of the tsunami, disaster-stricken areas that received electricity from Tokyo Electric Power Company had to restore electricity first; afterwards, water, gas, and communication lines were gradually restored in that order. On the other hand, worried about unforeseen large-scale blackouts due to shortages in electricity, Tokyo Electric Power Company initiated "planned power outages" in the capital. To conserve energy, many measures were done, for example, the number of trains was decreased, elevator was stopped or minimal operated,... Some of libraries in the capital, considering the risk of power outages, could not avoid shortening their business hours. In addition, railway lines and stations could not be used due to railroad damage or destruction, and cars could not be used due to gasoline shortages; all of this affected the distribution of goods, and material delivery became difficult and was delayed. Incidentally, provisions, masks, and batteries for emergency reserves were sold out in the capital by the end of March.

The 5th wave was "Strong Aftershocks." Strong aftershocks have occurred

since March 11. The aftershock that occurred off the coast of Miyagi Prefecture on April 7, 2011 at 11:32pm registered as a 6 on the seismic intensity scale and caused disaster victims to revisit the terror and fear of March 11. Moreover, materials that had fallen to the ground on March 11 - finally returned to their proper places by that time - were thrown to the ground in large quantities yet again. This was a bitter experience for many librarians in disaster-stricken areas who had done their best, and who now felt not only discouraged, but also that their efforts had been wasted.

The 6th wave was "Short-handedness." Immediately after the disaster and unrelated to their original professional duties, civil servants in disaster-stricken areas engaged in rescue activities, ordering that these activities be a priority. Public Library staff - who are civil servants - were no exception; they left their libraries, endeavoring to help or survey refugee shelters. This was no problem and, in fact, a natural action at the time of the disaster. During that time, however, library services had to be stopped or reduced in damaged areas, the result being that surveys of damage conditions at affected libraries and the resumption of services for the purpose of reconstruction work was postponed.

Information on Afflicted Libraries and Damage to Afflicted Libraries:

Now, a survey on disaster-stricken libraries and the damage they suffered has been conducted for this report. Because there is no national organization that brings together all of the various types of Japanese libraries, collecting information on the various types of afflicted libraries and the damage they suffered has been a difficult task. In addition, there is no standard regarding presentation or transcription of damage and disaster conditions, so it was impossible to evaluate and compare disaster conditions.

Examining library classifications, prefectural (public) libraries in heavily damaged Iwate Prefecture, Miyagi Prefecture, Fukushima Prefecture and Ibaraki Prefecture strove to get comprehensive grasp of damage conditions at their own facilities, or at other public facilities within their prefectures. Prefectural libraries displayed damage information on their homepages and updated this information at all times. Hence, information related to public libraries in these four prefectures is complete, so it was possible to obtain compiled comparative information revolving around each prefectural library. On the other hand, because there is no collected information outside these three prefectures (and, if there is, it has not been publicized), it was necessary to obtain information from library homepages directly. Information regarding damage conditions at libraries in the capital was particularly scant; damage other than "fallen materials" was not noticed, so it is a possibility that information is simply not available.

As for university libraries, the Tohoku University Library Association, the National Public University Library Association, and the Private University Library Association played a central role in collecting and partial publication of information. However university policies prohibit the publicizing of information related to disaster damage from some libraries, and there was a feeling of difference in their degree of enthusiasm.

Unfortunately, information collected from most school libraries is scant, and there are many cases where even Boards of Education do not have information (only Ministry of Education, Sports, Science and Technology data has been of use as a reference). Unlike public libraries and university libraries that have their own buildings, and perhaps because there is an image that "social education facilities such as schools have libraries only as one facet," it was mostly the case that "disaster or damage surveys only of (school) libraries was not completed." Because of this, valid disaster and damage information on school libraries was unable to be obtained.

Information on disaster or damage conditions is not something that is automatically put out immediately after an earthquake. If someone does not research the conditions, then report and record them, no information will remain. In addition, because information showing the conditions of each library can be erased or overwritten at any time, it is necessary to take steps to preserve information when it is observed when possible.

Giving and Accepting Support:

At pm on Saturday, April 23, 2011, at Gakushuin University in Tokyo, Mejiro - borrowing time before the Japan Society for Archival Science's annual convention - there was a call for saveMLAK volunteers and an urgent discussion held entitled, "The Great East Japan Earthquake, Disaster Aid and MLAK - What Can I Do?" At that time, Associate Professor Aoki Mutsumi of the National Institute of Japanese Literature (an organization in charge of the "Information from A (archive)") raised strongly thoughts of "the power of giving support" and "the power of accepting support." This was based on reflection and experience of rescuing damaged materials after the Great Hanshin-Awaji Earthquake.

The power of lending a helping hand to give support to disaster victims cannot be realized without "the power of accepting support" - the acceptance of aid on the side of the disaster victims. Depending on the situation, it is possible that disaster victims may be wounded. The phrase "the power of accepting support" has been around since before the Great East Japan Earthquake;³⁸ however, at this urgent discussion Professor Aoki's presentation made clear that the idea of "giving support and accepting support" has thereafter become a key concept of recovery activities related to libraries.

In the year since the earthquake, trial and error support activities have been occurring such as "reading support activities" like as reading aloud and the distribution of books; "support to libraries" such as the restoration of materials and the establishment of temporary libraries; and "documenting support" such as the construction of digital archives. Of course, some methods of support are successful and some are not. Even the same method of support could be a bother depending on the time provided - or, conversely, it could be gratefully accepted. When giving support, it is always important to keep in mind timing and communication, and to strike a balance between giving support and accepting it.

³⁸ The Cabinet Office Disaster Prevention staff released a pamphlet entitled "Improving the 'power of accepting support' regionally" on April 10th, 2010 (http://www.bousai-vol.go.jp/juenryoku/)

9.3.2 Toward the Future of Libraries

In conclusion, we offer five points aimed at the future of libraries created from great reflection on the Great East Japan Earthquake.

1. Always offer simulations and training on coping with earthquakes and evacuation methods.

In Japan, September 1 is a day when the Great Kanto Earthquake is commemorated, and when autumn arrives, disaster prevention drills are held. From kindergarten and elementary school, knowledge and personal experience of earthquakes as well as methods for taking refuge are taught repeatedly; even adults in the workplace conduct repeated, annual trainings.

According to several accounts, because many library staff affected by the Great East Japan Earthquake "also experienced the Miyagi Prefecture Coastal Earthquake on August 16, 2005 (Magnitude 7.2; Lower 6 on the seismic intensity scale), they reacted calmly when the earthquake struck." Nevertheless, they had a terrifying experience due to the tremors and tsunami that surpassed expectations. Things done in ordinary times are unable to be done when push comes to shove. Taking a lesson from the Great East Japan Earthquake, it must be assumed that "this level of damage is actually possible," and it is recommended that simulations and trainings on responses and evacuation methods should be conducted when possible.

2. Collect information about libraries in a unified manner and create a system where such information provision is possible.

The recent disaster was large-scale and wide-ranging, causing damage to many libraries. However, one fact learned from the compilation of this report is that necessary information could not be gathered, creating a shortage of information, so that even now the full scope of library damage cannot be grasped.

During such times of disaster, the prompt collection and provision of information is essential for both those offering support and those accepting support. Because distance makes no difference, it is hoped that networks for information exchange among libraries will be created and, in order to grasp the condition of and information on all related libraries, personal networks and maintenance systems will be developed and databases for the provision of information will be constructed.

3. Come to terms with the long term - 10 years or more - outlook for reconstruction.

In 2000 - five years after the Great Hanshin-Awaji Earthquake of 1995 there were no longer any residents living in temporary dwellings; by 2005, Hyogo Prefecture had abolished "the 1995 Great Hanshin-Awaji Earthquake Unified Disaster Prevention Office" as well as "The Great Hanshin-Awaji Earthquake Reconstruction Office." In 2012 - 17 years after the earthquake - the streets of disaster-stricken Kobe are once again complete; nevertheless, on January 17 the news runs pieces on the Great Hanshin-Awaji Earthquake and everyone remembers the disaster. And the "earthquake disaster collection" established by libraries affiliated with Kobe University is still going strong.

We have not yet arrived at the level of considering "Libraries and Disaster Prevention" just one year after the earthquake. Reconstruction is not a task that will be completed in just one or two years. So that recorded experiences of the past conveyed to the next generation may be put to good use, it is necessary to come to terms with a long-term, ten years or more outlook for reconstruction.

4. Connect providing support and accepting support, and raise people that connect libraries with those involved.

What shortages exist now? What is unnecessary? And what should be done? Because there is no system of acceptance, it is meaningless even if those who provide support spring into action. Conversely, there are situations where the best intentions of supporters are a hindrance or a bother to disaster victims. Furthermore, it is necessary to consider how needs change over time. Because of this, it is important to have balance, timing, and communication between those providing support and those accepting support. This way of thinking - "providing support and accepting support" - is a pillar of the revival of libraries afflicted by the Great East Japan Earthquake.

If "providing support and accepting support" are taken as a vertical axis, connecting libraries that provide or accept support and libraries, organizations and groups as the horizontal axis becomes collectively necessary. As an initial action, saveMLAK has excelled in providing support for the reconstruction of libraries afflicted by the Great East Japan Earthquake. From that, the connecting and organizing of people and organizations related to libraries, beginning with the National Diet Library, is currently proceeding, albeit slowly. Will saveMLAK still function in the event of another disaster? There is no guarantee. Rather, libraries should raise capable individuals who are able to connect providing support and accepting support, and are able to connect libraries with interested persons.

5. Always as, "What can libraries do?"

Just because libraries are cultural facilities does not mean they are indifferent to earthquake disasters and the damage that is caused. Many library functions such as collection, organization, preservation, and sponsorship have been "libraries provided; however, there are still many things can accomplish." Activities such as collection (the construction of digital archives), preservation (the restoration of damaged photographs and materials), sponsorship (providing and exhibiting information and materials related to the earthquake disaster) are occurring as methods of support toward the reconstruction of libraries from the Great East Japan Earthquake. The fact that libraries are information service organizations is now being recognized. Continuing to ask this question ("What can libraries do?"), not only in times of disaster and reconstruction but also in times of stability, is a necessary step for the advancement of libraries.

The world was greatly moved by the Great East Japan Earthquake - How have the mode of beings and libraries changed, and how will they continue to change? This is something to be decided by all people connected to libraries, beginning with library staff.

This report, published at a critical turning point one year after the earthquake disaster is nothing more than an initial document in the first steps of reconstruction. Using the experience of the Great East Japan Earthquake and this extensive information as a foundation, it is hoped that, in the future, that this report can somehow have the power to lessen - even to a small degree - the tragedy that might someday strike a library somewhere in the world.