Asian Disaster Reduction Center

2013 ANNUAL REPORT

Foreword

It is said that natural disasters know no borders. Indeed, countries all across Asia experienced a variety of disasters, including earthquakes, typhoons, floods, forest fires, drought, and landslides, and these regularly resulted in the loss of many precious lives and a tremendous amount of property.

The United Nations designated the 1990s the International Decade for Natural Disaster Reduction and made efforts to reduce natural disaster damage all over the world through efforts based on international cooperation. The Asia Disaster Reduction Center (ADRC) was established in Kobe in July 1998 to take advantage of this decade-long campaign to further promote multilateral cooperation on disaster reduction. Since then, ADRC has been focused on promoting multilateral disaster reduction cooperation at the community level all across Asia. Activities include exchanges of disaster management experts from government organizations, the collection and dissemination of relevant information, and surveys and research on multilateral disaster reduction cooperation.

ADRC also organizes the annual Asian Conference on Disaster Reduction to facilitate the sharing of disaster reduction information between member nations. The conference, which is hosted each year by a member nation, was held this past March in Tokyo. It was at this most recent conference that I was appointed to serve as chairman of ADRC. The Asian region has experienced many major disasters that have wrought massive damage across the region, from the Indian Ocean Tsunami to the Sichuan Earthquake and the Great East Japan Earthquake. Developing a culture of disaster reduction is about passing down lessons learned from past disasters to future generations, and ensuring that this information is used to make adequate preparations for future disasters. To share this culture with the people of Asia, as well as the rest of the world, ADRC cooperates with relevant organizations and actively creates opportunities for member nations to learn from one another.

This year, ADRC has worked in cooperation with its member nations to implement a variety of programs, including the Disaster Reduction Policy Peer Review, the Visiting Research Program, a project to promote disaster reduction education, and a program for sharing disaster reduction information through the use of satellites. In addition, efforts are being made to promote disaster reduction efforts by the business sector. It is essential that individual companies engage in business continuity planning so that local economies can be sustained after a major disaster strikes. Companies are also being asked to fulfill their roles as community members by actively participating in disaster management activities. Since next year is the final year of the Hyogo Framework for Action (2005-2015) established by the UN, we will be looking at the progress made toward the HFA goals, and investigating the construction of a new framework for the future.

This report outlines the work of ADRC from this perspective. ADRC's activities are built on the cooperation of members. We welcome your candid feedback and input as we continue striving to conduct activities that help further reduce the damage caused by natural disasters in Asia and worldwide.

We are deeply grateful for your ongoing support and counsel.

March 2014
Masanori Hamada, Chairman
Asia Disaster Reduction Center

Contents

1. Asian Disaster Reduction Center

1-1. History of the Establishment of the ADRC

The Asian Disaster Reduction Center (ADRC) opened its office in Kobe, Japan, on July 30, 1998. The major steps leading up to formation of the ADRC are described below.

(1) International Decade for Natural Disaster Reduction (IDNDR)

At its 42nd General Assembly in December 1987, the United Nations designated the 1990s as the International Decade for Natural Disaster Reduction, and adopted a resolution aiming to sharply reduce the damage caused by natural disasters around the world, particularly in developing countries, through joint international action.

(2) World Conference on Natural Disaster Reduction

In May 1994, the UN held the World Conference on Natural Disaster Reduction in Yokohama, Japan, to conduct an interim review of the decade-long IDNDR initiative and to propose an action plan for the future. At the meeting, the "Yokohama Strategy for a Safer World" was adopted, highlighting the importance of international cooperation in regions that share common types of disasters and disaster reduction measures. Disaster reduction activities have since been promoted throughout the world based on this strategy.

(3) Ministerial-level Asian Natural Disaster Reduction Conference

As a first step toward regional cooperation under the Yokohama Strategy, the IDNDR Secretariat organized a meeting in Kobe in December 1995 to formulate a policy on disaster reduction cooperation in Asia. Cabinet members in charge of disaster reduction from 28 countries attended the meeting, which concluded with the adoption of the Kobe Disaster Reduction Declaration. This declaration consists of ideas for promoting international cooperation in disaster reduction, including a Japanese proposal to launch a feasibility study on a system for coordinating disaster reduction efforts in the Asian region.

(4) Asian Natural Disaster Reduction Experts Meeting

The government of Japan and the IDNDR Secretariat jointly organized an experts meeting in October 1996 to hash out how a central disaster reduction system, as stated in the Kobe Disaster Reduction Declaration, might be created for the Asian region. The meeting was attended by key personnel in the disaster reduction bureaus of 30 countries, and they agreed to study the creation of the tentatively named "Asian Disaster Reduction Center" to serve as a secretariat for promoting activities under the proposed system.

(5) Asian Disaster Reduction Cooperation Promotion Meeting

The government of Japan and the IDNDR Secretariat jointly organized a meeting in Tokyo

in June 1997 to discuss the specific activities of the proposed central disaster reduction system. Once again, key personnel from the disaster reduction bureaus of 23 countries attended the meeting, whose overall goal was to promote cooperation in disaster reduction efforts through specific actions. A proposal was made at the meeting to establish an office in Japan to serve as the secretariat for the proposed system.

(6) Establishment of the ADRC

With momentum gathering from this series of meetings, the Japanese government discussed the organization, budget, and other aspects of the proposed office with the other countries involved. With the cooperation of Hyogo Prefecture, the Asian Disaster Reduction Center was officially established in Kobe on July 30, 1998.

1-2. Composition

The Asian Disaster Reduction Center (ADRC) was established in Kobe, Hyogo prefecture, in 1998, with mission to enhance disaster resilience of the member countries, to build safe communities, and to create a society where sustainable development is possible. ADRC works to build disaster resilient communities and to establish networks among countries through many programs including personnel exchanges in this field.

The Center addresses this issue from a global perspective in cooperation with a variety of UN agencies and international organizations/initiatives, such as the United Nations Secretariat for International Strategy for Disaster Reduction (UNISDR), the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP).

At the outset, ADRC was comprised of 22 member countries, four advisor countries, and an observer organization. Armenia joined later, in August 2000, followed by the Kyrgyz Republic in July 2002, Pakistan in July 2005, and Yemen and Bhutan in December 2007, Azerbaijan in 2009, Maldives in 2010, and the Republic of Iran in 2012 bringing the number of member countries to 30. In March 2004, the US joined as the fifth advisor country to ADRC.

30 Member Countries: Armenia, Azerbaijan, Bangladesh, Bhutan, Cambodia, China, India, Indonesia,Islamic Republic of Iran, Japan, Kazakhstan, Republic of Korea, Kyrgyz, Lao PDR, Malaysia Maldives, Mongolia,Myanmar, Nepal, Pakistan, Papua New Guinea, Philippines, Russian Federation, Singapore, Sri Lanka, Tajikistan, Thailand, Uzbekistan, Viet Nam,Yemen
5 Advisor Countries: Australia, France, New Zealand, Switzerland, United States of America
Observer: Asian Disaster Preparedness Center (ADPC)

Fig. 1-2-1 Member Countries

1-3. Main Activities

ADRC engages in the following basic activities:

(1) Information Sharing

- Provision of disaster information
- Sentinel Asia – A space-based disaster management support system in the Asia-Pacific region
- Promotion of the GLobal unique disaster IDEntifier (GLIDE) system
- Organization of international meetings

(2) Human Resource Development

- Organizing conference, workshops, and trainings on disaster risk reduction
- Program for inviting visiting researchers from member countries

(3) Building Community Capabilities

- Development and dissemination of tools for encouraging community involvement
- Development of Public and Private Partnership and Business Continuity Plan (BCP) for small and medium-sized enterprises
- Assistance with the activities to further strengthen all stakeholder coordination mechanisms

2. Highlights of 2013/2014

2-1. Asian Conference on Disaster Reduction 2014

ACDR2014 was held in Tokyo, Japan on 4-6 March 2014. The conference was organized jointly by the government of Japan, the United Nations Secretariat of the

International Strategy for Disaster Reduction (UNISDR), and the Asian Disaster Reduction Center (ADRC). The conference was attended by a total of 119 participants, including high level government officials from 26 countries, as well as representatives of 26 international and regional organizations, the academic community, and the private sector.

ACDR2014 was opened by Mr. Yasutoshi Nishimura, Senior Vice-Minister of the Cabinet Office of Japan. Mr. Nishimura began by expressing his deepest gratitude to all of the participants for their support following the Great East Japan Earthquake. He then discussed the importance of the experience gained and lessons learned from that disaster. He indicated that the outcomes of this conference are expected to be incorporated into the Post-2015 Framework for Disaster Risk Reduction (HFA2).

The keynote presentation, by Dr. Satoru Nishikawa, Vice-President of the Japan Water Agency, highlighted Japan's experience and how it might be addressed in the HFA2 and outlined expectations for the upcoming 3rd WCDRR. Prof. Osamu Murao of Tohoku University also gave a talk on “Lessons Learned from the Great East Japan Earthquake and the Current Recovery Efforts.”

The key topics addressed at ACDR2014 were as follows:

1. HFA progress and challenges towards Post-HFA
2. Strengthening local capacity for disaster risk reduction (DRR)
3. Human resource development and training
4. Utilization of space technology for DRR

Session 1, entitled “HFA Progress and Challenges toward HFA2,” aimed to identify the gaps and challenges that remain in promoting the HFA, as well as to share good practices developed in member countries. The session was also expected to facilitate the discussion on HFA2 in Asia.

Session 2, entitled “Strengthening Local Capacity for DRR,” discussed best practices in local level activities in the field of disaster management, highlighting the importance of citizen participation in all aspects of disaster management from preparation to recovery, the development of disaster management strategies tailored to the specific features of local communities, and the promotion of business continuity planning (BCP) among small and medium-sized businesses.

Session 3, entitled “Human Resource Development and Training,” gave an overview of the current situation in this area, and aimed to share good practices and challenges faced in the area

of human resource development and training in the region. The session was also expected to facilitate the discussion of future projects in Asia.

Session 4 was entitled “Utilization of Space Technology for DRR.” The HFA stipulates the importance of space technologies in Chapter 2. Strengthening DRR will be facilitated by the accelerated use of various technologies, such as remote sensing, GIS, ICT, risk assessment tools, early warning systems, and weather monitoring technologies.

In closing, Mr. Kiyoshi Natori, Executive Director of ADRC, presented the chair's summary of ACDR2014. He announced that lessons drawn from the conference will provide important feedback that can be used in developing the programs for the upcoming 6th AMCDRR and 3rd WCDRR. The participants also agreed that ongoing ADRC activities, such as those designed to strengthen human networks, will continue to be pursued in member countries. Closing remarks were given by Mr. Masatoshi Yokkaichi, Director of Disaster Awareness and International Cooperation for the Cabinet Office of Japan.

ACDR2014 was a great success thanks to the important contributions made by all of the speakers and the active involvement of all participants. Please visit the ACDR2014 website for more information.

http://www.adrc.asia/acdr/2014_index.html

Fig. 2-1-1 ACDR 2014

2-2. Report on typhoon Haiyan

In December 2013, a team of researchers and experts from ADRC/IRP visited some areas in the provinces of Leyte and Samar that were impacted by typhoon Haiyan (local name Yolanda) in the Philippines. The objective was to draw information on preparedness, response, and plans for recovery in order to provide greater understanding of the disaster, including what gaps and challenges need to be addressed.

The team found that essential preparations were made in anticipation of the super typhoon, such that preemptive evacuations to schools, churches, stadiums, and public buildings were made. Additionally, relief goods and services were ready in most command centers. However, the preparations did not match the magnitude of the unexpected super typhoon which caused massive storm surge that destroyed the evacuation and command centers, specifically those located near the coast. Among of the immediate impacts were high casualties, relief goods washed away, and command centers became dysfunctional. Subsequently, the response effort

[Livelihoods of fishermen were affected]

[Province of Leyte Recovery Team]

had no choice but to be delayed. As island provinces, there were challenges in the operational capacities of airports and seaports as well as communication/coordination because most infrastructures were damaged. In fact, most relief goods and services were stranded in some islands before reaching the impacted areas.

In terms of recovery, the local governments and communities acknowledged that greater challenges in housing, livelihoods, and infrastructure are expected. Since most areas where flattened, people immediately need shelter. Communities also need alternative livelihoods because assets from original activities such as coconut harvesting, farming, and fishing were gone. Furthermore, the local market, transportation, energy, and communication infrastructure were also urgently needed. The findings from the visit suggest that in terms of preparedness, public awareness on storm surge needs to be strengthened, location of evacuation and command centers need to be reviewed, and policies and activities on preparedness (e.g. early warning systems) need to be reassessed. In terms of response, the capacities of local governments and communities to provide immediate relief goods/services need to be enhanced in anticipation of the delays from external agencies due to logistical challenges. In terms of recovery, it is crucial that communities are actively engaged in planning and implementing the programs and

projects.

In view of these suggestions, IRP/ADRC plans to organize a workshop in the Province of Cebu in February 2014 to be participated by local government officials and key stakeholders to

[Tacloban Airport]

[Covered Court, Baras, Palo, Leyte]

re-assess the needs for drills and proper information dissemination, re-evaluate early warning systems, and provide technical assistance for recovery planning at the provincial/city/municipality levels. The output of the workshop was shared with ADRC member countries on occasion of "ACDR 2014" to be held at Tokyo in March 2014.

3. Collection and Dissemination of Disaster Information

The ADRC has been disseminating many different types of information related to disaster risk reduction on its website (http://www.adrc.asia) aiming at ensuring appropriate disaster response, mitigation, and preparedness activities.

3-1. Disaster Risk Reduction Activities of Member Countries

With assistance from its 30 member countries, the Asian Disaster Reduction Center (ADRC) has been collecting information on systems, plans, and specific measures of each country's disaster risk reduction as well as the situation of natural disasters. ADRC has also been collecting information from related materials, various countries/organizations and through Visiting Researchers from the ADRC member countries and UNOCHA Office in Kobe.

ADRC will continue collecting and sharing information on the following items mainly:

1) Disaster management systems (legal frameworks, organizations, basic plans, and disaster management manuals), 2) Experiences of disaster response, and 3) Information on natural disasters (descriptions of natural disasters such as earthquakes, floods, cyclones, etc., and resulting damages).

3-1-1. Information Collection from Member Countries

In fiscal year 2013, as in the previous year, ADRC collected disaster risk reduction-related information on member countries through the following methods.

(1) Information Provided from ADRC Member Countries

Besides the voluntary provision from the member countries, ADRC collected the information on systems, plans, and specific measures of each country's disaster reduction as well as situations of ongoing natural disasters through Visiting Researchers (VR).

(2) Collecting Information through Participation in International Conferences

ADRC collected relevant information by participating in international conferences such as the 1st Executive Committee of 6th Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR). In addition, ADRC, in collaboration with the Government of Japan (Cabinet Office), held the Asian Conference on Disaster Reduction in Tokyo, Japan from 4 to 6 February 2014 in order to discuss and share progresses, issues, and challenges in implementing disaster risk reduction polices.

(3) Utilization of Internet

Taking advantage of internet, the ADRC has been collecting disaster related information efficiently. Internet will be more important to facilitate technical support and construct disaster information databases. The internet also helps ADRC to collect related information provided

by academic research institutions and international organizations.

In fiscal year 2013, ADRC continued gathering information on the disaster risk reduction systems of member countries through information requests, field surveys, international conferences, and internet. Furthermore, ADRC updated country reports in cooperation with Visiting Researchers.

Table 1-2-1-1 lists the reports provided by counterparts in member countries. All these reports are available on ADRC website. Over recent years, disaster risk management organizations in many countries have been actively promoting information dissemination over the internet. Therefore, the ADRC website developed direct links to these websites which offer access to the latest information.

Table 3-1-1-1 List of reports from ADRC member countries

Country	Year prepared
Armenia	2001, 2002, 2003, 2005, 2006, 2010, 2012
Azerbaijan	2011
Bangladesh	1998, 1999, 2001, 2003, 2005, 2006, 2010, 2011, 2013
Bhutan	2008, 2013
Cambodia	1998, 1999, 2002, 2003, 2005, 2006, 2013
China	1998, 1999, 2005, 2006, 2012
India	1998, 1999, 2002, 2005, 2006, 2008, 2012
Indonesia	1998, 1999, 2002, 2003, 2004, 2005, 2006, 2012
Iran	2013
Japan	1998, 1999, 2002, 2005, 2006, 2012
Kazakhstan	1998, 1999, 2002, 2005, 2006
Korea	1998, 1999, 2001, 2002, 2005, 2006, 2008
Kyrgyzstan	2005, 2006, 2012
Laos	1998, 1999, 2003, 2005, 2006
Malaysia	1998, 1999, 2003, 2005, 2006, 2008, 2009, 2011
Maldives	2013
Mongolia	1998, 1999, 2002, 2005, 2010, 2011, 2013
Myanmar	2002, 2005, 2006, 2013
Nepal	1998, 1999, 2005, 2006, 2009, 2010, 2011
Pakistan	2005, 2006, 2009
Papua New Guinea	1998, 1999, 2005, 2006
Philippines	1998, 1999, 2002, 2003, 2005, 2006, 2009, 2010, 2011, 2012
Russia	1998, 1999, 2003, 2005, 2006
Singapore	1998, 1999, 2001, 2002, 2003, 2005, 2006
Sri Lanka	1998, 1999, 2003, 2005, 2006, 2009, 2010, 2011

Tajikistan	1998, 1999, 2003, 2005, 2006
Thailand	1998, 1999, 2003, 2004, 2005, 2006, 2008, 2010, 2011, 2012
Uzbekistan	1998, 1999, 2005, 2006, 2013
Vietnam	1998, 1999, 2005, 2006
Yemen	2009, 2012

Country Reports include the following topics provided by each member country.

I. Natural Hazards in the Country
- 1.1 Natural Hazards Likely to Affect the Country village
- 1.2 Recent Major Disasters
  (basic data of disasters, damage situation, response and recovery information)

II. Disaster Management System
- 2.1 Administration System
- 2.2 Legal System and Framework
- 2.3 Structure of Disaster Management
- 2.4 Priorities on Disaster Risk Management

III. Disaster Management Strategy, Policy and Plan

IV. Budget Size on National Level

V. Progress of the Implementation of Hyogo Framework for Action (HFA)

VI. Recent Major Projects on Disaster Risk Reduction

VII. Counterparts of ADRC

3-1-2. Natural Disaster Data Book

ADRC publishes analyses on disaster impacts based on the data of EM-DAT provided by the Centre for Research on the Epidemiology of Disasters (CRED), Brussels. For instance, 20th Century Data Book on Asian Natural Disasters, and its revision released in 2000 and 2002 respectively featured disasters which hit its member countries while annual Natural Disaster Data Book covers disaster characteristics in the world.

This section introduces the excerpts from Natural Disaster Data Book 2012, which covers regional and disaster-specific issues of the year and long term.

According to EM-DAT recorded in 2012, 328 disaster events occurred, 10,783 people were killed, more than 104 million people were affected and economic damage reached 142billion USD.

In 2012, Typhoon Bopha (Typhoon No.24 in Japan) brought about largest impacts, killing 1,900 people, affecting more than 6 million people and damaging 1.7 billion USD. Also several floods in China affected 17 million people in July and caused economic damage 8 billion USD in November.

In 2012, Asia had largest shares in disaster occurrence (39.3 %), fatalities (55.9%) and affected people (69.2%) while Americas topped in the amount of damages (61.1%) followed by Asia's 23.0% (Figure 3-1-2-2 and Table 3-1-2-1). This is attributed to severe storms including hurricanes and droughts in the United States.

Regarding disaster types, flood topped in disaster occurrences (36.9%), the number of killed and affected (31.6% and 58.6% respectively). On the other hand, storm shared highest in economic damage (52.8%).

Compared with the previous year, the year 2012 saw decline in the numbers of disaster occurrences, people killed and affected, and the amount of economic damages.

In the medium and long term, the number of disaster occurrences is declining trend though the other indices show increasing trend.

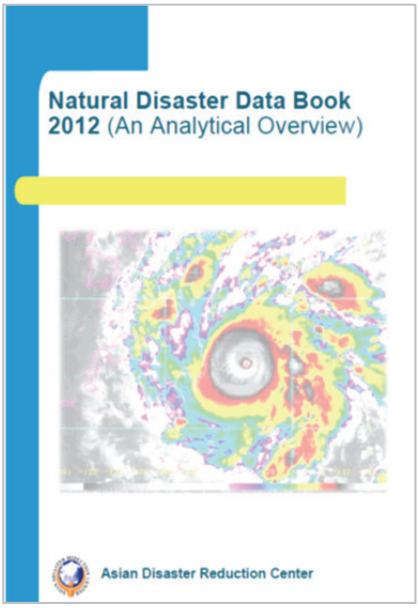


Fig. 3-1-2-1 National Disaster Data Book 2012

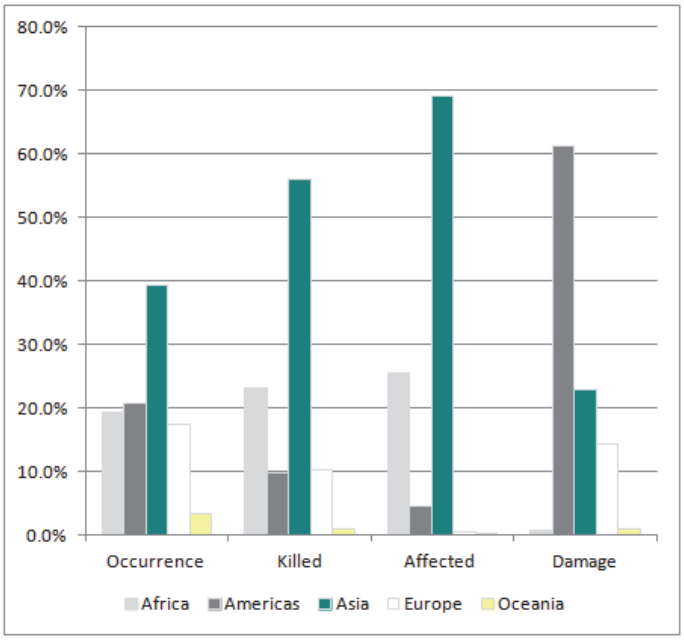


Fig. 3-1-2-2 I mpacts of Natural Disasters by Region 2012

Region	*Impact*							
	Occurrence (share in %)		Killed (share in %)		Affected (share in %)		Damage (US$ million) (share in %)	
Africa	63	(19.2%)	2,489	(23.1%)	26,532,108	(25.4%)	1,084	(0.8%)
Americas	68	(20.7%)	1,051	(9.7%)	4,749,370	(4.6%)	87,063	(61.1%)
Asia	129	(39.3%)	6,032	(55.9%)	72,178,335	(69.2%)	32,687	(23.0%)
Europe	57	(17.4%)	1,111	(10.3%)	557,319	(0.5%)	20,346	(14.3%)
Oceania	11	(3.4%)	100	(0.9%)	258,229	(0.2%)	1,208	(0.8%)
Total	328	(100.0%)	10,783	(100.0%)	104,275,361	(100.0%)	142,387	(100.0%)

Table 3-1-2-1 Impacts of Natural Disasters by Region 2012

3-1-3. Disaster Information Sharing Using GLIDE Numbers

GLIDE is the acronym for the GLobal unique disaster IDEntifier system, in which commonly formatted but unique numbers are assigned to disasters all over the world. The GLIDE system was first proposed by ADRC and has been adopted and used by more than 20 international organizations and research institutes.

There are many organizations around the world that design and develop their own disaster databases that are freely accessible online. When a disaster occurs, information is distributed over the Internet not only by organizations in the affected countries but also by organizations and the mass media in other countries. Whenever a disaster occurs in any part of the world, ADRC collects information from websites of relevant organizations and worldwide news agencies, or by sending e-mails to contact persons in the affected area. Over the course of its experience, ADRC has come up against several problems in collecting disaster information using these conventional methods, including the following.

① Considerable manpower is needed to search the Internet for websites of relevant individual organizations every time a disaster occurs.
② There is no standardized naming protocol for disasters. As many different names are given to a certain single disaster by various organizations, even search engines such as Google or Yahoo sometimes return no results.
③ Website links may be lost when the structure of particular organization's database or website is modified.

The GLIDE system offers a solution to these problems. It will significantly improve the efficiency with which information on historical and ongoing disasters can be retrieved from databases and websites.

At the Global Disaster Information Network (GDIN) Conference held in Canberra, Australia in March 2001, ADRC proposed the development of a standardized coding system for managing information on disasters around the world. This proposal was accepted for implementation as a pilot project by the GDIN. In 2004, glidenumber.net was jointly developed by the ADRC and OCHA ReliefWeb, with technical assistance provided by LaRED. It is designed to issue new GLIDE numbers to disasters immediately after they occur. Moreover, ADRC, the CRED, IRI/Columbia University, the USAID/OFDA, the WMO, IFRC, UNDP, and ISDR Secretariat have agreed to use the GLIDE number format as the standard for assigning disaster identification numbers.

The GLIDE number format was revised in 2004 as follows:

AA-BBBB-CCCCCC-DDD-EEE
AA: Disaster classification →→→→→→→→→
BBBB: Year of occurrence
(4-digit numeric figure)
CCCCCC: Serial number by year
DDD: Country code
(ISO code. e.g., JPN for Japan)
EEE: Region code
(e.g., 013 for Tokyo)

Drought	DR
Heat Wave	HW
Cold Wave	CW
Tropical Cyclone	TC
Extratropical Cyclone	EC
Tornado	TO
Violent Wind	VW
Severe Local Storm	ST
Flood	FL
Flash Flood	FF
Land Slide	LS
Snow Avalanche	AV
Mud Slide	MS
Volcano	VO
Earthquake	EQ
Fire	FR
Tsunami	TS
Storm Surge	SS
Epidemic	EP
Insect Infestation	IN
Wild Fire	WF
Others	OT
Complex Emergency	CE
Technological	AC

Fig 3-1-3-1 Structure of GLIDE

The local code at the end can be added for the convenience of user countries in organizing their national databases. This format is still in use among GLIDE-issuing organizations.

Databases that incorporate GLIDE numbers will have the following advantages:

① A parameterized search function allows user organizations to easily connect pieces of disaster information archived by various organizations.

② A search engine, developed to focus on particularly important information for user organizations, allows a one-stop search and display of all the necessary data, eliminating the need to conduct additional searches for data independently archived by individual organizations.

3-2. Database on Disaster Risk Reduction

3-2-1. Latest Disaster Information

When a natural disaster occurs, information on the extent of the damage, the situation of the affected area and emergency response and relief is collected and disseminated by media, local and central governments, international organizations, research institutions, civil societies, NGOs, etc in affected countries and throughout the world. Once most of such information was usually provided individually and it took time and labor to get all the necessary information, whch prevented from agile data collection activities in case of emergency.

Under these circumstances, organizations such as the Centre for Research on the Epidemiology of Disasters, Centre for Research on the Epidemiology of Disasters (CRED) and the UN Office for the Coordination of Humanitarian Affairs (UNOCHA) have been gathering global disaster information to make disaster information.

The Asian Disaster Reduction Center has developed a database and published the latest disaster information on its website in order to contribute as a clearinghouse of disaster information from various sources since September 1998. Summarized information with direct links to the original information sources provided on its website enables rapid search and retrieval of information. In particular, the database provides a brief summary of disasters (dates, locations, and overviews), brief outlines of damage situations, link information categorized by reports/articles, geographic data, emergency relief information, urgent reports from the ADRC member countries and graphic information. Such information is continually updated in accordance with further information release.

Figure 3-2-1-1 to Figure 3-2-1-4 shows information flow of ADRC's website from top page to related organizational information. The flood in Indonesia, January 2014 was take as example. In the top page, the disaster appears as latest disaster, linked to detailed information (Figure 3-2-1-1). The detailed information has links to GLIDE number, and national disaster management organization of the country when it is ADRC's member country (Figure 3-2-1-2, 3-2-1-3). Information sources for the reports come from media and situation reports as mentioned below (Figure 3-2-1-4).

The information originates mainly from announcements of disaster relevant organizations including the ADRC's member countries, situation reports from the UNOCHA ReliefWeb, International Federation of Red Cross and Red Crescent Societies (IFRC), and media reports. The latest disaster information site also links to the home page of the disaster management organization and the disaster management information within ADRC's website, which works as a portal to various kinds of information.

In addition, the database connected to the link to the other site "JAXA DMSS" to enhance the value to ADRC's web site using the satellite image data taken at the affected site after the natural disasters when the emergency satellite observation was conducted. The database provides information of more than 1,860 disasters in the world as of end of Marcy 2014.

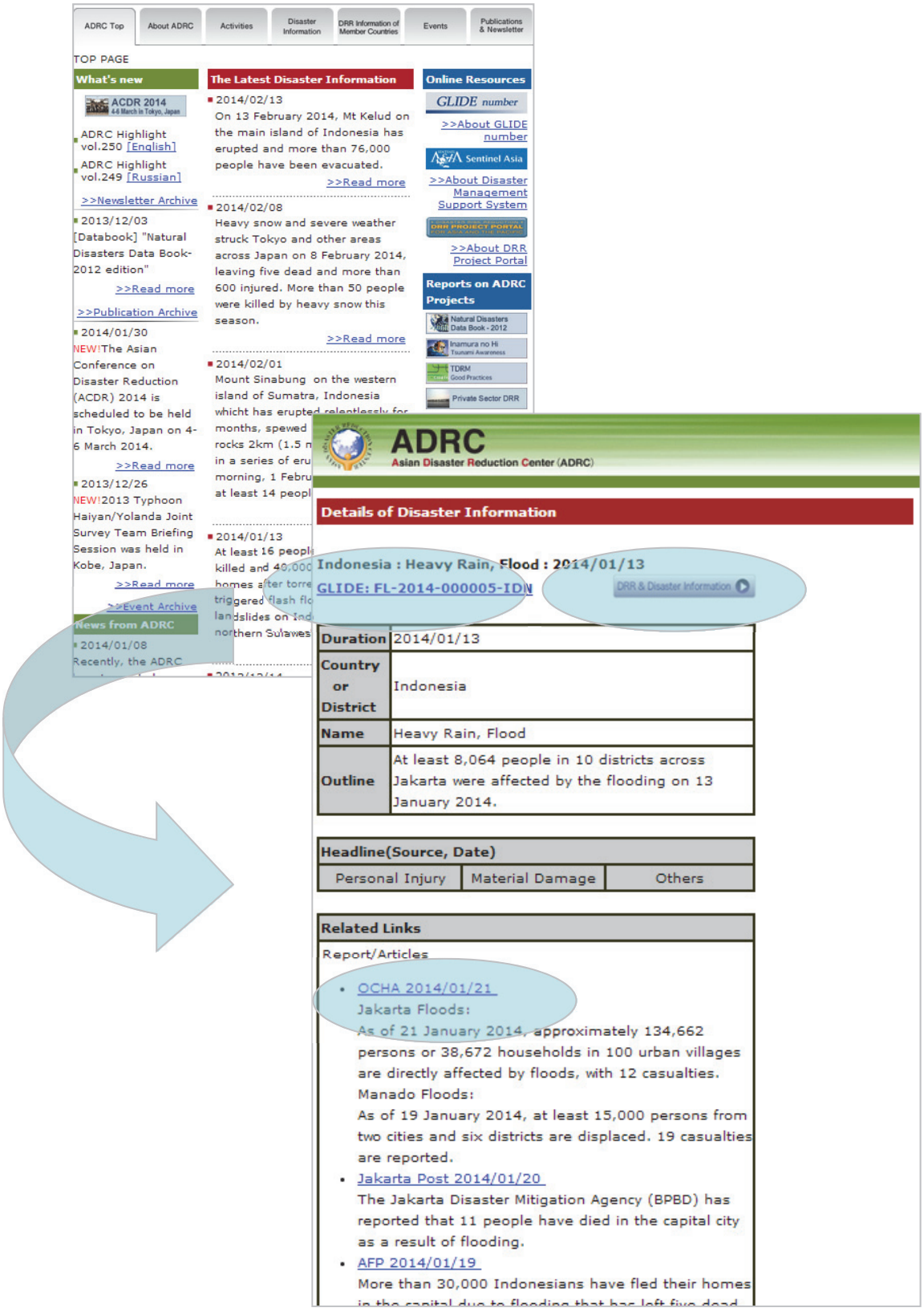
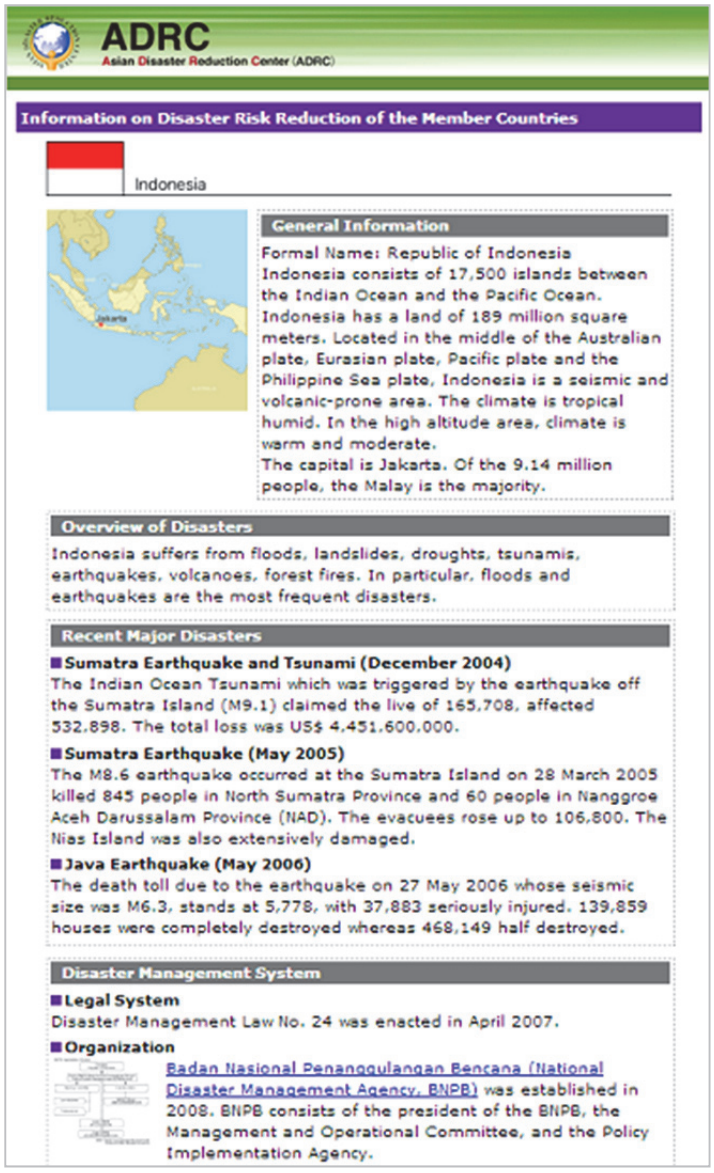


Figure 3-2-1-1 ADRC Website top page (above) and Details of Disaster Information (below)

Figure 3-2-1-2 GLIDE Number of the disaster



3-2-2. Multilanguage Glossary on Disaster Reduction

(1) Provision of Multi-language Glossary on Natural Disasters

The Multi-language Glossary on Natural Disasters was compiled through the activities of the United Nation's IDNDR launched in 1990. It can be easily searched in six languages such as Chinese, English, French, Japanese, Korean, and Spanish by choosing an input language and a target language. To make the glossary available to a broader audience, ADRC has been providing online translation services. Thus, the six-language glossary is now available on the ADRC website.

The glossary contains technical terms which are hard to find in ordinary dictionaries, and can be utilized by personnel in the disaster field to decipher technical documents related to Disaster Reduction.

(2) Native Language Activities by Visiting Researchers

ADRC accepts eight visiting researchers from member countries during the year to improve capabilities in disaster reduction administration. Since 2008, ADRC has been making "Multilanguage Dictionaries" with side by side entries into the mother language of the visiting researcher about 1,130 basic "disaster reduction terms" based on English terms.

Side by side translation lists have already been completed by researchers from Kyrgyz (Kyrgyz and Russian), Malaysia, Myanmar, Nepal, Pakistan, Sri Lanka, Thailand, Vietnam, and Yemen (Arabic) by March 2014, and been offered in the format of "Multilingual Dictionaries (Tentative)" on the ADRC website separate from the "Multi-language Glossary." They were intended to serve as reference materials for disaster reduction activities in member countries.

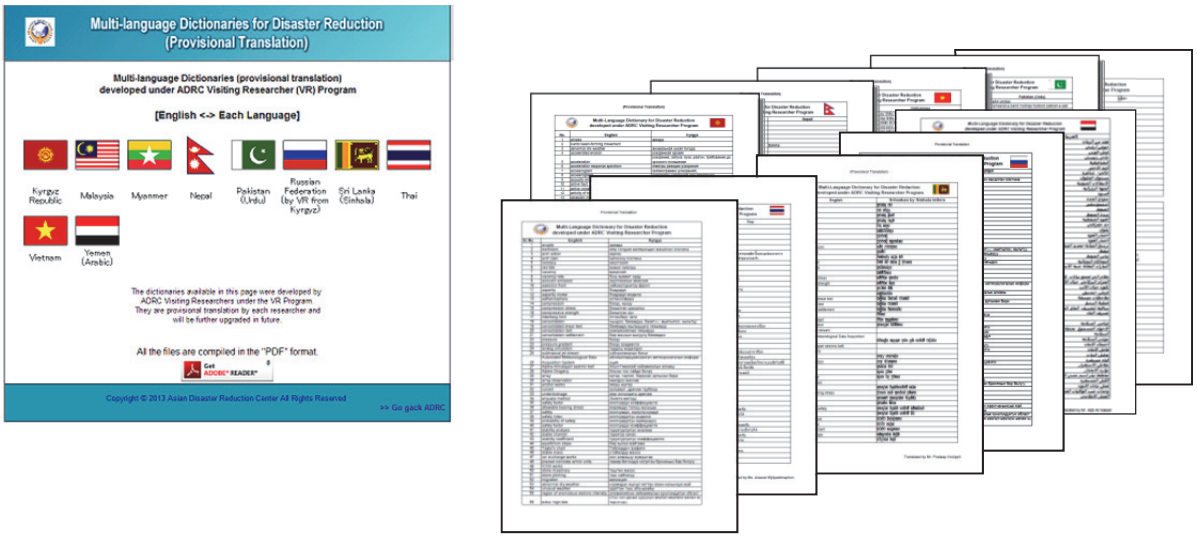


Fig.3-2-2-1 Multi-language Dictionaries for Disaster Reduction (Provisional Translation)

3-2-3. Asian Disaster Reduction Center Newsletter: ADRC Highlights

ADRC has been using the Internet and e-mail to share information with its counterparts in the member countries, and other applicants. As one of its mainstay tools for information dissemination, ADRC has been issuing the newsletter “ADRC Highlights” since 1 June 1999. It had been issued twice a month until FY 2007, and has been issued once a month since the renewal of its design in FY 2008.

Fig. 1-4-3-1 ADRC Highlights
(October 2013: Japanese edition, English edition, Russian edition)

The newsletter is made publicly available on the website. It is also e-mailed in English, Russian and Japanese to the ADRC counterparts and former visiting researchers, former GLobal IDEntifier number (GLIDE) visiting researchers, participants in the past ADRC annual meetings, visitors to ADRC, trainees in JICA's training courses which ADRC were involved in, and participants in international conferences ADRC took part in to strengthen relations with. Also we register e-mail addresses of those who wish to subscribe the newsletter upon the receipt of request e-mail. The numbers of subscribers in English, Russian and Japanese, are 2,388, 191 and 903 respectively as of February 2014.

The contents include articles on the latest ADRC activities, reports on international conferences, and other events which ADRC staff attended and gave presentations in, as well as national reports by the ADRC visiting researchers from member countries. In addition, ADRC has been featuring former visiting researchers from member countries on the newsletter since FY 2008 and followed up their efforts for disaster risk reduction in their countries. This contributed to further enhancing the network of former visiting researchers from member countries.

This tool has been very effective in order to keep good ties and communication with relevant officials .

Table 1-4-3-1 Headlines from ADRC Highlights (FY2013)

Vol.	Main Articles
241	1. RCC10 and Meeting with the Chief of Mongolia's NEMA 2. Human Resource Development (1) JICA Training "Comprehensive Disaster Risk Management" (2) JICA Training "Raising Awareness of Disaster Reduction" 3. Interview by APRSAF Secretariat
242	1. IRP/ ADRC Attends International Forum on Recovery and Reconstruction Following China's Sichuan Earthquake 2. Workshop on Standard Operating Procedures for a Coastal Multi-hazard Early Warning System 3. A report on the "BCP Status of the SMEs in the Asia-Pacific Region 2012"
243	1. 4th Global Platform for Disaster Risk Reduction 2. The 4th Global Platform for Disaster Risk Reduction 3. Business Continuity Management Booklet for Small and Medium-Sized Enterprises
244	1. Consultation Workshop on Developing a Capacity-Building Strategy through the Establishment of a Disaster Management Training Center in Myanmar 2. ADRC Participates in 8th Meeting of Typhoon Committee Working Group on DRR 3. Japan-ASEAN Integration Fund Project "Promotion of Disaster Education in Schools" (Malaysia and Brunei)
245	1. JICA Training Course: Comprehensive Disaster Management for Central Asia and the Caucasus 2013 2. Disaster Recovery Planning Workshops in the Horn of Africa
246	1. Participation in the JICA Follow-Up Seminar "Comprehensive Disaster Management" 2. ADRC Visiting Researcher Report (1) Ms. Ms. Chinbaatar LKHAMJAV (Mongolia) (2) Ms. Thandar AUNG (Myanmar)
247	1. ADRC Participates in First Saudi International Conference on Crisis and Disaster Management 2."Workshop on Disaster Recovery Planning for South Sudan" was successfully organized and held by IRP, ADRC and the Cabinet Office of Japan 3. ADRC Visiting Researcher Report (1) Mr. Ibrahim Thaufeeq (Maldives) (2) Mr. Mansurjon Tashpulatov (Uzubekistan)
248	1. ADRC Participates in Expert Group Meeting on Improving Disaster Data to Build Resilience in Asia and the Pacific 2. "Promotion of Disaster Education in Schools" Project in Lao PDR
249	1. ADRC/IRP Attends Third Session of UNESCAP's Committee on Disaster Risk Reduction in Bangkok 2. First Sentinel Asia Joint Project Meeting Step-3 (JPTM) 3. ADRC Participates in 8th Integrated Workshop of the Typhoon Committee
250	1. Asian Disaster Reduction Center (ADRC) and International Recovery Platform (IRP) Secretariat Dispatched Survey Team to the Typhoon-affected areas in the Philippines 2. ADRC DRR Policy Peer Review FY2013

251	1. International Recovery Forum 2014 Draws to Successful Close 2. ADRC Visiting Researcher Report (1) Dr. Mohammad Manirul Islam (Bangladesh) (2) Mr. Leng Heng An (Cambodia)
252	1. Workshop on Recovery Planning for Local Governments Impacted by Typhoon Haiyan 2. ADRC Visiting Researcher Report (1) Mr. Ali Bakhtiari (Iran) (2) Mr. Pema Thinley (Bhutan) 3. Asian Conference on Disaster Reduction (ACDR) 2014 Draws to Successful Conclusion (FLASH)

3-3. Transmitting Image of Disaster Area and Offering Image Analysis Technique

3-3-1. Sentinel Asia

(1) Objective

The Asian Disaster Reduction Center (ADRC) continues to participate in the "Sentinel Asia" project, which was endorsed and launched by the Asia-Pacific Regional Space Agency Forum (APRSAF). The project was launched in 2006 with an objective of establishing a disaster risk management system by making the use of satellite images in Asia. ADRC functions as the focal point to receive emergency observation request in the framework of the Sentinel Asia. Upon receiving a request from the disaster management agencies of Asian countries, ADRC decides whether the request is appropriate considering the emergency observation should be utilized mainly for the assessment of damages and casualties etc. Once the request is decided as appropriate, ADRC will forward the request to six space agencies, namely, ISRO (India), JAXA (Japan), GISTDA (Thailand), KARI (Korea), NARL (Taiwan) and CRISP (Singapore) that are participating in the Sentinel Asia Project.

On 4 June 2009, in accordance with the Cooperation Agreement between the United Nations Office for Outer Space Affairs (UNOOSA) and ADRC, "ADRC UN-SPIDER Regional Support Office (ADRC UN-SPIDER RSO)" was established, for the purpose of UN disaster management and immediate response, within ADRC premises and operated by ADRC staff members as coordinators of the ADRC UN-SPIDER RSO.

ADRC, as a UN-SPIDER RSO, should work towards ensuring the successful completion of the UN-SPIDER Work Plan thereby facilitating countries in Asia to make access to and develop the capacity of utilizing space-based information to support the full disaster management cycle.

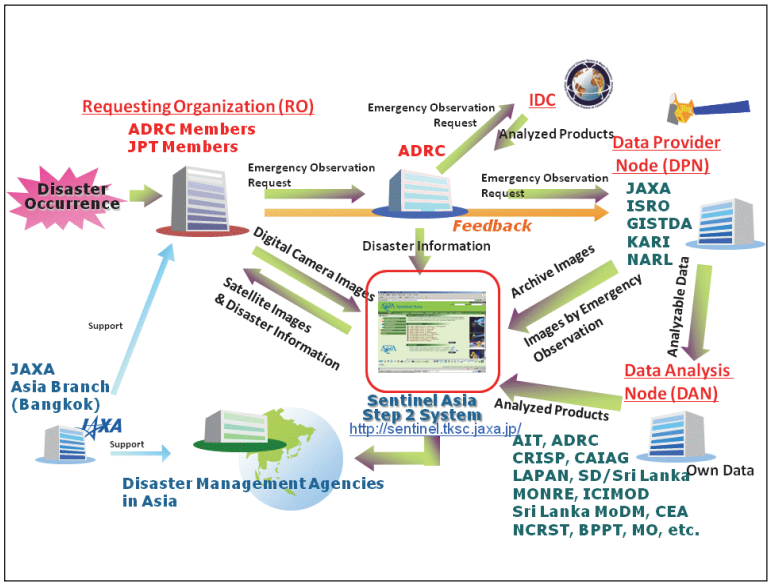


Fig. 3-3-1-1 Flow of emergency observation

(2) Activities for this year

① Emergency observation

From January to December 2012, twenty-five (25) emergency observations were requested, and nineteen (19) were undertaken. And from January to October 2013, eighteen (18) emergency observations were requested, and sixteen (16) were undertaken.

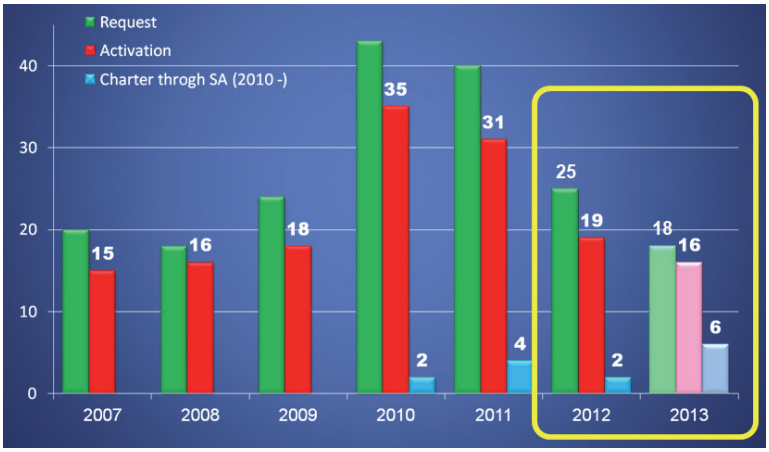


Fig. 3-3-1-2 Changes in the number of emergency observation 2007-2013

② Participation in Sentinel Asia Joint Project Meeting Step-3 (JPTM)

The 1st Sentinel Asia Joint Project Meeting Step-3 (JPTM) was held on 27-29 November 2013 in Bangkok, Thailand. It was organized jointly by the Japan Aerospace Exploration Agency (JAXA) and the Asian Institute of Technology (AIT) of Thailand. Relevant organizations of Sentinel Asia, such as space agencies, disaster management agencies, international organizations and academia participated in JPTM. At the meeting, ADRC reported on the status of the emergency observations that have been implemented, and presented suggestions for improving the questionnaires that are sent out after emergency observations have been conducted.

Fig. 3-3-1-3 JPTM

3-3-2. Achievements of the Sentinel Asia in the HFA and recommendations for the Post-HFA

(1) Objective

It has been more than six years since the Sentinel Asia began to operate a system in 2007 to provide satellite image data of a disaster in the Asia-Pacific region. Participating disaster management /satellite agencies requested implementation of this activity a total of 190 times as of the end of December, 2013.

Meanwhile, as the International Strategy for Disaster Reduction that succeeds the International Decade for National Disaster Reduction (IDNDR) proposed in the 1990s, the Hyogo Framework for Action (HFA) adopted in 2005 will serve as action guidelines until 2015. There are about two years left until the end of the HFA implementation. Review of the past activities based on the HFA and inputting work toward the formulation of a new framework (post-HFA) after 2015 are being performed by domestic and foreign agencies.

(2) Achievements of Sentinel Asia in terms of the HFA

① Achievements in the application of space and satellite technologies concerning Priority for Action 2: "To identify, assess, and monitor disaster risks and enhance early warning."

Sentinel Asia is a voluntary initiative founded for the sharing of disaster information within Asia-Pacific region, operated by ARPSAF. It is currently working to realize effective utilization of earth observation satellites for regional disaster management using technologies such as remote sensing, Geographical Information System (GIS) and Information Communication Technologies (ICT.)

In a disaster, to a varying degree of urgency depending on the current phase of the disaster (prevention and preparedness, response, recovery or reconstruction), there is a need to "communicate the necessary information accurately and quickly to those in need in the affected area/country." The emergency observation activities under the Sentinel Asia program proceed according to the following work flow: an observation request is received from the affected area/country, the request is accepted, archived data (of the affected area) is provided, observation data of the affected area is provided, and finally, the analyzed product is provided. A system is being constructed for quickly providing services while sharing information through an online system. Data showing the time required for services to be provided using Sentinel Asia in recent disasters (Jan 2011 to Aug 2013) is shown in Fig. 3-3-2-1 and Fig. 3-3-2-2.

Sentinel Asia responds to most Emergency Observation Requests within 48 hours, as shown in Fig. 3-3-2-1.

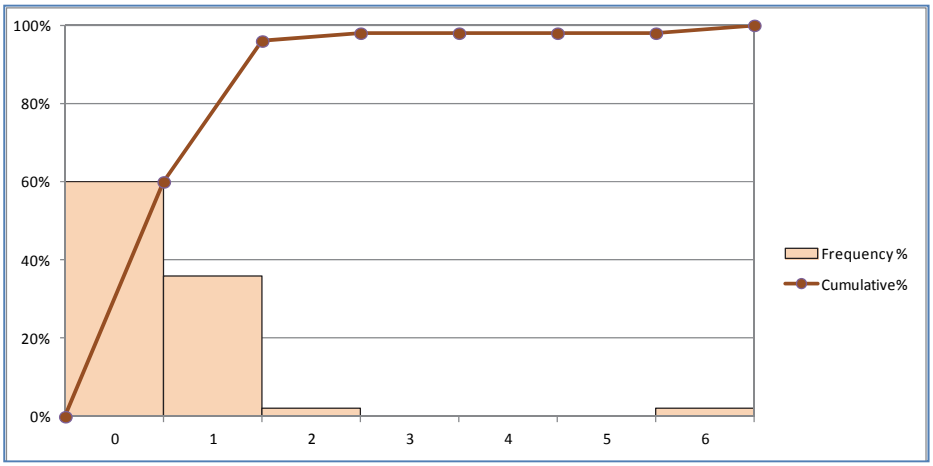


Fig. 3-3-2-1 Number of days between submission of requests and initiation of action in response

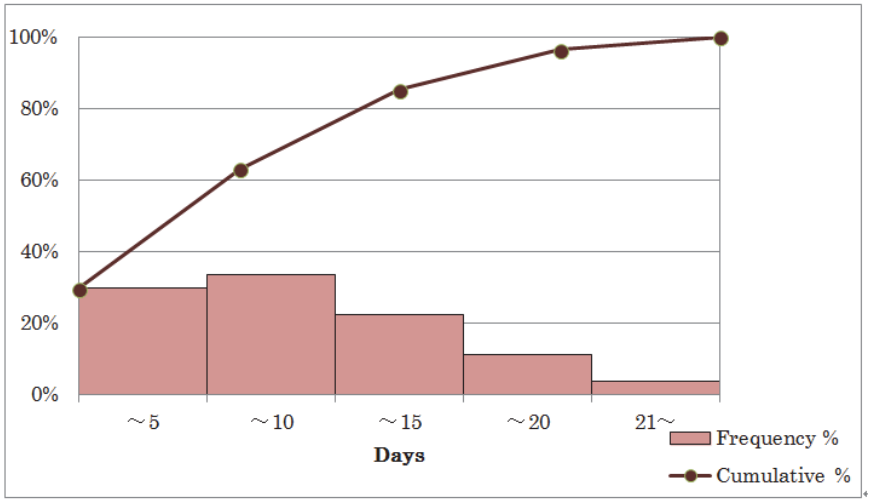


Fig. 3-3-2-2 Number of days between submission of requests and provision of satellite imageries (after disaster)

② Achievements in building regional partnership concerning Priority for Action 3: "Use knowledge, innovation and education."

Major characteristics of Sentinel Asia scheme are the provision of satellite data by member space agencies upon requests of users (disaster management agencies of the affected area/country) and the additional value by analyzed products of relevant data produced by specialist institutions when needed (see fig. 3-3-2-3 below.)

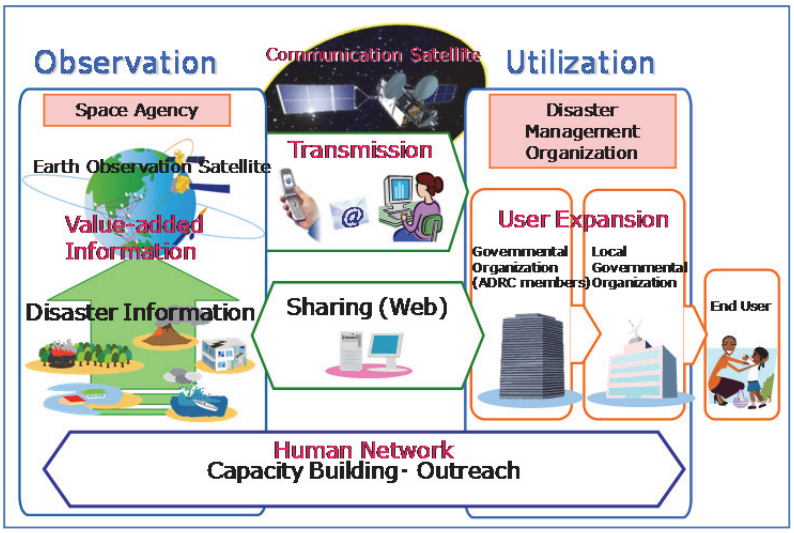


Fig. 3-3-2-3 System of data and information for users

③ Achievements through application of space and satellite technologies in the area concerning knowledge, innovation and education as outlined in Priority for Action 3.

In order to continue and strengthen the network among space agencies, specialists and disaster management agencies, Sentinel Asia has so far carried out a total of nine operational training sessions inviting total 179 users from relevant fields of relevant countries. In addition, ADRC has been disseminating knowledge and information concerning utilization of space-based technologies in disaster management in international conferences such as the Asian Conference on Disaster Reduction, which is the annual conference of ADRC's member countries, or the Asian Ministerial Conference on Disaster Risk Reduction.

④ Implementation as an international agency, provision of platform for follow-ups and achievements from the application of space & satellite technology

"Implementation of follow-up" for international agencies defined in the HFA states: "In close collaboration with existing networks and platforms, cooperate to support globally consistent data collection and forecasting on natural hazards, vulnerabilities and risks and disaster impacts at all scales." With its intended use in disaster risk reduction, the platform is required to be versatile, rapid and robust. The latter part of the same section from the HFA states that "these initiatives should include the development of standards, the maintenance of databases, the development of indicators and indices, support to early warning systems, the full and open exchange of data and the use of in situ and remotely sensed observations" referring to the use of satellite imageries in networks and platforms. In this respect, Sentinel Asia, which is a voluntary-based initiative but supported firmly by various potent

organizations such as JAXA or AIT, would meet this requirement.

(3) Recommendations for Post-HFA

Given the challenges yet to be fulfilled by Sentinel Asia as an international cooperation project for the HFA, it makes following recommendations for post-HFA:

- ✓ Utilization of space and satellite technology for monitoring in all disaster phases
- ✓ Promotion of multi-stakeholder dialogues and discussions
- ✓ Promotion of integrated use of satellite and ground data and studies
- ✓ Collection, gathering and sharing of information on the needs of the affected area and the feedback

4. Human Resource Development

4-1. Human Resource Development and Information Networking on Visiting Researcher (VR)

4-1-1. Background

The ADRC has been receiving Visiting Researchers (VR) from member countries since 1999. To date, 79 officials from 26 member countries have taken part in this program.

Every visiting researcher has learnt about the Japan's advanced knowledge and technology on disaster risk reduction and international cooperation of Japan in his/her stay in the ADRC.

The Visiting Researchers are expected not only to contribute to strengthening the capacity on Disaster Risk Reduction in their countries, but also to further promote cooperation between their countries and the ADRC. After finishing the program, they are expected to play leading role on DRR in their countries.

4-1-2. Objective

The objectives are as follows:

- To evaluate the capacity on DRR of the ADRC member countries based on the Hyogo Framework for Action by accumulating the latest data on the organizations, the national budget, the national plans, disaster event database, and the relevant laws, act, and regulations for DRR.
- To examine the policies through the collection and the analysis of Good Practice of the disaster prevention measures of the member country.
- To improve the Visiting Researcher program based on their advice such as usefulness of sharing information and exchange opinions among the visiting researchers who stayed in the same period.

4-1-3. Activities of Visiting Researchers in FY2013

In fiscal year 2013, the following eight researchers have joined the program (four researchers in the first half year and four researchers in the latter half year).

4-1-3-1. Maldives

☐ Mr. Thaufeeq Ibrahim

☐ Job Title at the time of visit: Assistant Director, Directorate of Operations and Training, Maldives National Defence Force

☐ He had the intention to learn about Community-based Disaster Risk Reduction in Japan. Through the lectures and visits to various relevant institutions including Hyogo Prefectural Government, Rokko Sabo Office, joining disaster drills and community DRR events and interview with residents, he conducted a comparative study on community-based DRR

policies between Japan and Maldives.

4-1-3-2. Mongolia

- ☐ Ms. Chinbaatar Lkhamjav
- ☐ Job Title at the time of visit: Senior Officer in Charge of Radio Communication and Early Warning System, National Emergency Management Agency Early Warning Center
- ☐ She had the intention to study on earthquake early warning. She took lectures by experts at Cabinet Office, Japan Meteorological Agency and Nagasaki City Emergency Management Office and so on. Also she visited a temporary housing in Miyagi prefecture to learn the recovery status from the Great East Japan Earthquake in 2011. She compiled a report on her research by comparing the earthquake early warning systems in Japan and Mongolia, discussing applicability of Japan's expertise to that of Mongolia.

4-1-3-3. Myanmar

- ☐ Ms. Thandar Aung
- ☐ Job Title at the time of visit : Upper Divisional Clerk, Relief and Resettlement Department, Ministry of Social Welfare, Relief and Resettlement
- ☐ She had the intention to conduct comparative study on Comparative Study on Emergency Response System (ERS) in Japan and Myanmar. She took lectures from central and municipal government entities such as Cabinet Office, Osaka (Tsunami Storm Surge Disaster Prevention Station), Hyogo, Nagasaki and so on..

4-1-3-4. Uzbekistan

- ☐ Mr. Mansurjon Thashpulatov
- ☐ Job Title at the time of visit: Leading Specialist of Hydrogeology, Engineering Geology and Geoecological Department, State Committee of the Republic of Uzbekistan on Geology and Mineral Resources
- ☐ He conducted a comparative study of earthquake and landslide monitoring systems in Japan and Uzbekistan after taking lectures such as landslide mechanism and monitoring, GIS application by experts from Kyoto University, Rokko Sabo Office.

Fig. 4-1-3-1 [Maldives] Making Country Report presentation

Fig. 4-1-3-2 [Mongolia] Learn experience and recovery status after the 2011 Tohoku Tsunami from victims

Fig. 4-1-3-3 [Myanmar] Visit to Tsunami Storm Surge Disaster Prevention Station

Fig. 4-1-3-4 [Uzbekistan] GIS exercise

4-1-3-5. Bangladesh

- ☐ Mr. Islam Mohammad Manirul
- ☐ Job Title at the time of visit: Senior Assistant Secretary, Ministry of Disaster Management and Relief
- ☐ He had the intention to study about integrated framework for earthquake preparedness in Japan for assessment of the applicability to Bangladesh. By February 2013, he has visited Japan Meteorological Agency and relevant institutions as well as the affected areas of the Great East Japan Earthquake. He compiled a country report on disaster risk management of Bangladesh.

4-1-3-6. Bhutan

- ☐ Mr. Pema Thinley
- ☐ Job Title at the time of visit: ICT/ Geographic Information System Officer, Department of Disaster Management
- ☐ He had the intention to learn best practice in the use of GIS, Remote Sensing and ICT for disaster information management system and emergency response system. By February 2013, he has visited Cabinet Office and relevant organizes to gain basic knowledge and information on disaster management framework and measures. Also he joined community-based disaster drill in Kobe. He compiled a country report on disaster risk management of Bhutan.

4-1-3-7. Cambodia

- ☐ Mr. Leng Heng An
- ☐ Job Title at the time of visit: Personal Assistant to NCDM Secretary General, National Committee for Disaster Management (NCDM)
- ☐ He had the intention to study how to collaborate between national disaster management organization and NGO in DRR. He visited community-based DRR events and public entity that supports CSOs activities. He compiled a country report on disaster risk management of Cambodia.

4-1-3-8. Iran

- ☐ Mr. Bakhtiari Ali
- ☐ Job Title at the time of visit: Senior Expert, National Disaster Management Organization (NDMO)
- ☐ He had the intention to learn about integration of DRR into national and local government development planning. Also he compiled a country report on disaster risk management of Iran.

Fig. 4-1-3-5 [Bangladesh] Visit to Japan Meteorological Agency

Fig. 4-1-3-6 [Bhutan] Visit to community-based disaster drill in Kobe

Fig. 4-1-3-7 [Cambodia] Participation in Disaster Awareness Event, Kaeru Caravan

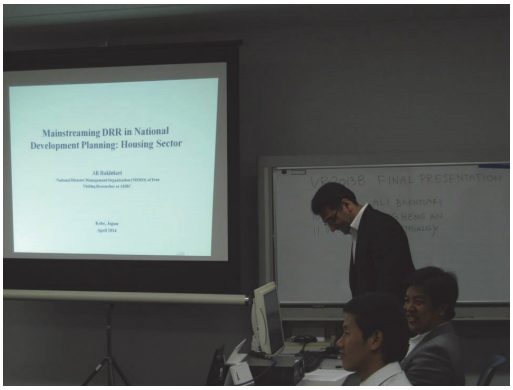


Fig. 4-1-3-8 [Iran] Making Final Research Presentation

4-2. Seminars and Training Course

4-2-1. JICA Training Course: "Comprehensive Disaster Management for Central Asia and Caucasus"

From 24 June to 3 August 2013, the Asian Disaster Reduction Center (ADRC) conducted a training course for disaster management officials from Central Asia and the Caucasus in cooperation with the Japan International Cooperation Agency (JICA) Kansai International Center.

The course was conducted in Russian and attended by a total of 13 central and local government officials representing five countries: Kazakhstan, Kyrgyzstan, and Tajikistan in Central Asia, and Armenia and Azerbaijan in the Caucasus.

The training was designed to convey basic knowledge and experiences related to natural disaster management, and to further promote the implementation of the Hyogo Framework for Action (HFA) in the participants' countries. During the training, participants were asked to identify a major problem in their own countries and to formulate an action plan for addressing it. They attended lectures and visited central and municipal government agencies, research institutes, a meteorological organization, a broadcasting company, a disaster management base, private companies, UN offices, and an NPO in order to comprehensively enhance their understanding of Japan's disaster management system. They also participated in "Town Watching" activities for hazard map making, and went on an excursion to the Shikoku Mountain Range where landslide and erosion control countermeasures are being implemented.

Central Asia and the Caucasus frequently experience disasters such as floods, droughts, landslides, and earthquakes, some of which extend across several countries. Also, heavy snowfall in the winter can lead to flooding when mountain glaciers thaw in the warmer seasons. Thus, these regions have common concerns in terms of disaster risk management. It is hoped that the participants will make good use of the knowledge, technologies, and methods they learned from the training course to implement various projects and help strengthen the disaster management systems in their home countries.

This course also allowed participants to reinforce their relationships with one another, and is expected to strengthen disaster management information networks in the region.

Fig. 4-2-1 Lecture at the Cabinet Office

In addition to the training held in Japan, the ADRC participated in the JICA Follow-Up Seminar "Comprehensive Disaster Management" held at the Center of Emergency Situations and Disaster Risk Reduction (CESDRR) in Almaty, Kazakhstan on 14-15 August 2013. This seminar was held as a follow-up to the JICA training course

entitled “Comprehensive Disaster Management for Central Asia and the Caucasus” that ADRC has been conducting together with JICA Kansai. To facilitate the transfer of Japan’s experience and expertise regarding disaster risk management, this seminar focused on a few themes of interest to the Kazakh government, namely the seismic safety of buildings, community-based disaster risk management (CBDRM), and the operation of regional disaster management centers.

Approximately 40 people participated, including the deputy mayor of Almaty City, national and local government officials from the Ministry of Emergency Situations and Almaty City, and researchers from KazNIISA (Agency for Construction, Housing and Utilities of the Republic of Kazakhstan) and other institutions. During the seminar, ADRC introduced CBDRM efforts that have been undertaken in Japan, including the activities of volunteer organizations specializing in disaster prevention, and efforts to promote disaster education and raise disaster awareness. Given the agreement reached between the governments of Kazakhstan and Kyrgyzstan in May 2013 regarding the establishment of the CESDRR, ADRC shared information on its own activities since it was first formed in 1998, in hopes that this might serve as useful information for the management of the CESDRR going forward. ADRC also learned a lot about the Kazakh DRR experience through this seminar. We look forward to working with JICA and the Ministry of Emergency Situations of Kazakhstan, as well as the CESDRR, in the near future.

4-2-2. JICA Training Course: "Comprehensive Disaster Risk Management Course"

From 7 January to 21 February 2014, ADRC, in collaboration with JICA conducted the JICA Comprehensive Disaster Risk Management Course for 8 countries, namely Afghanistan, Fiji, Myanmar, Nepal, Philippines, Tanzania, Vanuatu, and Yemen. Fifteen government officials in charge of disaster management took part in the training. This course aimed to help participants formulate and further develop disaster management plans in their own countries based on the concept of total disaster risk management, by enhancing their understanding of the disaster management systems adopted by the central and local governments of Japan.

During the training, participants attended a series of lectures on such topics as the Japanese disaster management system at the central and local levels, Japanese measures against earthquake, flooding, landslides and volcanic eruptions, school disaster education, community-based disaster risk management, the role of the media in disaster risk reduction, and recovery from natural disasters. They participated in a drill conducted by a Disaster Prevention Welfare Community in Kobe, the ADRC's town watching exercise, and the Memorial Walk of the Great Hanshin-Awaji Earthquake, in addition to visiting disaster-affected areas of the Great East Japan Earthquake and Mt. Unzen Fugen's volcanic eruption.

The trainees showed great interest in Japanese disaster management systems and efforts at disaster risk reduction and were keen to learn from every lecture and exercise offered during this training course. It is hoped that the participants will make good use of the knowledge and methods they learned during this training course to help strengthen the disaster management systems in their home countries.

Fig. 4-2-2-1 Memorial Walk on 17 January 2014

Fig. 4-2-2-2 Visit to the affected area of Mt. Unzen Fugen's volcanic eruption

4-2-3. JICA Training Course: "Raising Awareness of Disaster Reduction"

From 7 January to 7 February 2014, ADRC, in collaboration with JICA, conducted a JICA training course on "Raising Awareness of Disaster Reduction" for government officials in charge of disaster risk reduction at the central and local government levels. Representatives from the countries of Brazil, Chili, Honduras, Myanmar, Viet Nam, PNG, Philippines, Samoa, and Turkey took part in this training (19 trainees from 9 countries). The primary objective of the training was to establish concrete disaster reduction measures tailored to each participant's country, utilizing knowledge and methods gained from the training.

During the training, participants learned the roles to be played by the various relevant organizations, such as local authorities, academic organizations, the Japan Meteorological Agency, mass media, and NPOs, while attending lectures and occasionally visiting related facilities and organizations. The training included the following specific activities:

(1) town watching and hazard map creation, in which the trainees explored a certain area of downtown, identified risks, and came up with solutions,

(2) a visit to the disaster-stricken area of the Great East Japan Earthquake

(3) lectures on the formation of action plans, during which the trainees developed their own action plans.

The trainees are expected not only to carry out their action plans upon returning home, but also to apply the knowledge and methods they learned during their training and to promote efforts to raise awareness of disaster risk reduction measures.

4-3. Implementation of Short-term Training

ADRC has been conducting a short-term training for the disaster risk reduction. Target people of the training are mainly government officials and students overseas. In resent year, request of training from Japanese university and high school is increasing.

The contents of the training are focused on the current state of disaster in Asia, the activities of the Asian Disaster Reduction Center, and the disaster prevention measures in Japan etc. There were several opportunities to show space technology for DRR. ADRC provided information regarding the Sentinel Asia for participants. The training activity is a good opportunity to deepen their understanding of the efforts and awareness about the significance of disaster prevention activities, to improve the disaster prevention capability in Asian countries.

The following table is the list of visitors from abroad who attended lectures in FY 2013.

Table 4-3 Short-term Training in FY 2013

	Date	Affiliation	Number	Country
1	9 April 2013	Building Research Institute	6	Chile, Myanmar, PNG, Philippine, Japan
2	10 April 2013	Building Research Institute	12	China, Indonesia, Iran, Nicaragua, Peru, Philippine, Uganda, Japan
3	22 June 2013	Kansai University	100	Japan
4	24 June 2013	JICA Training	18	Afghanistan, Chile, El Salvador, Fiji, Nigeria, PNG, Philippine, Samoa, Tajikistan, Venezuela
5	8 July 2013	JICA Training	18	*ditto*
6	12 July 2013	Takarazuka Nishi High School	30	Japan
7	25 July 2013	Chuo University	6	Japan, Korea
8	24 October 2013	JICA Training	8	Peru, Guatemala, Bolivia, Chile, Colombia, Ecuador, Venezuela
9	30 October 2013	National Emergency Management Agency (NEMA), Korea	15	Korea
10	18 December 2013	Takarazuka Nishi High School	40	Japan

11	12 February 2014	JICA Training	12	Costa Rica, Guatemala, El Salvador, Panama, Honduras, Nicaragua
12	13 February 2014	RESTEC	20	Japan
13	7 March 2014	PASCO Corporation	32	Brunei, Cambodia, Indonesia, Laos, Malaysia, Philippine, etc.
14	24 March 2014	The International Emergency Management Society (TIEMS)	6	China
Total			323	

4-4. Promotion of Disaster Education in Schools in ASEAN

ADRC and Ministry of Education and Training of Vietnam hold the Training of Pilot Teachers (TOT) for "Promotion of Disaster Education in Schools" project in Hoa Binh Province, Vietnam on 19th and 20th October 2013.

This project is one of the Japan-ASEAN Integration Fund Projects, and aims to promote disaster education in ASEAN countries through training of school teachers.

10 teachers of Primary School and Lower Secondary School in Luong Sua District, Hoa Binh Province attended two-day training. Participants took lectures about natural disasters and disaster management in Vietnam by Hanoi Teacher Training College. Then, Dr. Goto, Senior researcher of National Institute for Educational Policy Research of Japan, gave a lecture on "Latest Situation of Disaster Education in Japan" introducing various education materials. After the lectures, participants made a discussion how to integrate disaster topics into the school curriculum.

Following the TOT, the Pilot Classes by the participants of TOT in primary and lower secondary school were held.

In Nhuan Trach Primary School in Luong Sua District, Hoa Binh Province, the pilot teacher pointed out the positive and negative points from natural environment such as the forests and rivers. In the Secondary School, they referred about the relation with development and natural disasters including climate change. Students discussed how to prevent disasters by reducing bad effect on nature.

After the Pilot Class, the seminar was held with 60 teachers to share the lessons of Pilot Class. There were lots of feedback from the teachers that they would like to have more knowledge on natural disasters and opportunities to learn it about disaster risk reduction.

Fig. 4-4-1 Training of Pilot Teachers (Vietnam)

Fig. 4-4-2 Pilot Class (Vietnam)

In Lao PDR, the Pilot Classes were held in November 2013 with cooperation the Ministry of Education and Sports. This project also aims to promote disaster education in ASEAN countries through training of school teachers, and is one of the Japan-ASEAN Integration Fund Projects.

The teachers gave lectures aimed at conveying basic disaster management knowledge to students. Lectures focused on floods, landslides, and fires, which are the most common natural disasters in Lao PDR. The students seemed very interested in learning about the topics of natural disasters.

In February 2014, the Seminar was held with teachers and the Ministry of Education and Sports in Lao PDR, inviting the expert of the Ministry of Education in Singapore for developing disaster education materials.

Fig. 4-4-3 Pilot Class of Teachers (LaoPDR)

Fig. 4-4-4 Lecture by Singapore Expert

5. Promoting Cooperation with Member Countries, International Organizations and NGOs

5-1. Urban Search and Rescue Training in Singapore

Asia is the most disaster-prone region in the world. The natural disasters that have occurred here in recent years have been the most severe, prolonged and widespread ever experienced in the region. Moreover, the regional vulnerability tends to increase due to the rapid urbanization, the insufficient speed in building an infrastructure capable of coping with urbanization, the coupling of independent risk sources (interaction of natural hazards with chemical, technological, lifestyle, and social risks), and the insufficient management capacity.

The Singaporean government holds an annual training course for search and rescue officers, and over the past nine years, the course has included trainees from outside Singapore. Training is provided on the search-and-rescue expertise required in urban disaster situations. The training facility complex of the Civil Defence Academy (CDA) of the Singapore Civil Defence Force (SCDF) is one of the most advanced facilities in Asia. In an effort to utilize their expertise and facilities, ADRC has been inviting fire fighters and rescuers from member countries to participate in this training course since 2001. Following table is list of participants in past. The number of participants has reached 52 in total.

Table 5-3-1 List of Participants

Year	Countries of past participants	Number of participants
2001	Philippines, Myanmar, and Korea	3
2002	Cambodia, Laos, Mongolia, Philippines, and Vietnam	5
2003	Cambodia, Malaysia(2), Myanmar, Sri Lanka, Thailand(2), and Philippines(2)	9
2004	Armenia, China, Nepal, Philippines	4
2005	Korea, Pakistan, Papua New Guinea, Russia	4
2006	Laos, Malaysia(2), Pakistan, Philippines(2), Papua New Guinea, and Vietnam	8
2007	Bangladesh, Korea, Nepal, Philippines	4
2008	Bhutan, Thailand, Kazakhstan, Mongolia	4
2009	Armenia, Sri Lanka	2
2010	Bhutan, Mongolia, Maldives	3
2011	Bangladesh, Russia	2
2012	Thailand, Mongolia	2
2013	Maldives, Bhutan	2
Total		52

5-2. Capacity Building in Member Countries

5-2-1. ADRC Cooperative Project and Peer Review for Promoting the Implementation of the Hyogo Framework for Action

(1) Background and Objectives

The Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (HFA) calls on regional organizations to contribute to periodic reviews on progress and to assist countries, as requested, in the preparation of periodic national summaries of their progress.

The year of 2013 is almost at the end of the implementation of HFA. The Mid-Term Review of the progress of implementation of the HFA, which was compiled by the UNISDR, highlighted that the significant progress has been made over the past five years in disaster risk reduction.

The Asian Disaster Reduction Center (ADRC) Cooperative Project for Promoting Implementation of HFA was conducted for providing support to the governments of the ADRC member countries to help them strengthen their commitment, expand resources and make further progress toward the expected goals of the HFA, and eventually build safer and more resilient communities in Asia.

ADRC called for the project proposals from the member countries, and the proposals from Maldives and Armenia were selected after careful screening.

The project included the Peer Review in the process of the implementation of the proposed activities for making the project more effective through mutual learning.

(2) Developing a National Framework on Managing Internally Displaced Persons during Emergencies in Maldives

1) Context and Project Purpose

In Maldives, the Indian Ocean Tsunami 2004 severely destroyed or damaged thousands of homes, and displacing an estimated 12,000 people from their islands. Moreover, projections of a rise in sea levels mean a severe risk of inundation.

With all these in consideration, a draft national guideline on managing Internally Displaced Persons (IDP) has been formulated with assistance from UNDP. However, the guideline needs to be translated into local language and the Training of Trainers workshop also needs to be developed and implemented to ensure that the various stakeholders understands their responsibilities in managing IDP. In this context, we implemented this project.

2) Period of the Project

10 December 2013 to 13 March 2014

3) Target Area of the Project

Republic of Maldives

4) Outline of the Project Activities

To achieve the above-mentioned challenge, the following activities were conducted.

① Localizing a National Framework, by containing the experience of tsunami 2004 and translating into local language.

② Developing a training module and handbook based on the framework.

③ Implementing the training for trainers by using that module and handbook.

④ Conducting a workshop for the stakeholder of the project on disaster risk reduction, collaborated with the experts dispatched by ADRC.

Fig. 5-2-1-1 Workshop at the Thulusdhoo Island

(3) Improving the Earthquake Safety of Nursing Homes and Orphanages in the Capital City of Yerevan and the District of Ararat in Armenia

1) Context and Project Purpose

The devastating Spitak Earthquake in Armenia (1988, approx. 25,000 casualties) and the Great East Japan Earthquake and Tsunami (2011, approx. 20,000 casualties) affected entire populations. However, not all sections of the population are equally badly affected. The victims include a very high number of children (approx. 25% of death toll in Armenia) and elderly people (approx. 65% of death toll in Japan). They have little opportunity to become involved in decision-making about disaster risk management measures and also their low level of participation within society can result in their needs being overlooked in this field.

In this context, we implemented a project of capacity building of seismic safety for the residents and staffs of nursing homes and orphanages.

2) Period of the Project

10 January 2014 to 10 March 2014

3) Target Area of the Project

Yerevan (capital) city and Ararat District, Republic of Armenia

4) Outline of the Project Activities

To achieve the above-mentioned challenge, the following activities were conducted.

① Studying an international experience in seismic protection behavior rules' education and training for inclusive groups of population like nursing homes and orphanages.

② Developing and distributing educational information materials for the residents and staffs of nursing homes and orphanages.

③ Conducting a workshop for the stakeholder of the project on disaster risk reduction, collaborated with the experts dispatched by ADRC.

④ Implementing a disaster prevention education, training, and drills at nursing homes and orphanages.

Fig.5-2-1-2 Interview at Orphanage in Yerevan city

Fig.5-2-1-3 Workshop at Nursing Home in Yerevan city

(4) Peer Review

ADRC has launched "ADRC Peer Review" since 2009 for further supporting the efforts for the implementation of the Hyogo Framework for Action (HFA) in member countries, through promoting information sharing and strengthening the relations among member countries.

Peer Reviews are generally the evaluation and review of certain subjects by other professional and technical people in the same field in order to appropriately maintain or enhance the quality of the subjects from highly technical point of view. In the context of this project, it means that experts from the outside of the target country review and assess disaster risk reduction related measures and policies of member countries for further promoting

disaster risk reduction.

The aims of Peer Review are as follows:

- Contribution to the implementation of the HFA in the ADRC member countries
- Information sharing and exchange of ideas among the ADRC member countries
- Disaster risk reduction capacity development of the ADRC member countries

The Peer Review 2013 were conducted in Maldives and Armenia. The outline of the Peer Review activities are as follows:

1) Outline of Peer Review in Maldives

The review was conducted based on country reports submitted by target country, as well as on-site interview survey. The reviewer teams identified strengthens and weaknesses of the target countries and then developed recommendations for further promoting disaster risk reduction in the target country.

< Themes for Reviews>

Activity of the management of Internally Displaced Persons (IDP) in Maldives

< Reviewer Team>

- Prof. Anawat Suppasri, Associate Professor, International Research Institute of Disaster Science (IRIDeS), Tohoku University, Japan (Team Leader)
- Ms. Nwet Yin Aye, Deputy Director, The Ministry of Social Welfare, Relief and Resettlement, Republic of the Union of Myanmar
- Researcher, ADRC

<Accompanied Counterpart (National Disaster Management Center (NDMC), Maldives) >

<Schedule of the review>

December 2013 - January 2014 (The interview and field survey was conducted on 24 to 27 December)

Fig. 5-2-1-4 Workshop on IDP

Fig. 5-2-1-5 Visit to NDMC

The reviewer team visited and conducted interview survey to the organizations as follows; Ministry of Defense and National Security, Ministry of Education, Ministry of Tourism, National Disaster Management Center.

Also, the team shared the lessons learned from the Great East Japan Earthquake and Tsunami, and the IDP management of Cyclone Nargis on the workshop. Based on the country report submitted from NDMC and the result of the interview, and also the on-site survey, the team discussed for compiling a draft review report with all findings and recommendations. And the final review report was compiled among review team members after returning from Maldives.

The outline of the final report is as follows:

<Evaluation>

- As conclusions for overall assessment, all sectors we have visited have their own way for managing IDP and DRR. Their ideas on sustainable disaster mitigation are good and similar to other countries that succeed in reconstruction after such great disaster or preparation for future disaster.
- However, common problems found; the logistics, which was caused by the Maldives' geography, and the limitation of the budget. As for the logistics, the situation might be become better if some agreements on transportation of persons or goods have made in advance to large disasters. In addition, skilled man power is also still lacking and can be improved by such training cooperation with international experts.
- At the end, support from the government in terms of laws and regulations will help for the implementation of the plan for managing IDP and DRR for each government institution.

<Suggestions>

- Strong legal framework on disaster management is critical need for Maldives as most of the concerned ministries could not speed up their interventions concerning disaster management due to lack of legal enforcement. At the same time, strong institutional framework can also be set up after the law is enacted.
- While disaster management is the mandate of the Ministry of Defense and National Security, the Local Governance Authority (LGAs) should be strengthened to tackle with emergencies since they are first responders before the arrival of National Defense force. Therefore, the Community Based Disaster Risk Management programs are necessary to involve local peoples for help of their knowledge.
- Trainings on Volunteer Fire Fighting of the Ministry of Defense and National Security should be geared up since the islands are dispersed and logistics is the very first challenge for the country.
- Most of the two or three-storied buildings are constructed only in large islands and there are no high buildings to take refuge in case of disaster in small islands. So, it is recommended that the Government should take into considerations on creating safe shelters (Mosque or Community Hall) for small and isolated islands with less population.

- Scientific risk assessment should be conducted for the most high risk islands with high populations and with important economic infrastructures. Maldives policy makers, decision makers and planners should be informed on this assessment report.
- More human resource should be mobilized in National Disaster Management Centre and other relevant ministries.
- Maldives National Disaster Risk Management Plan should be evolved to include the comprehensive and long-term sustainable development.

2) Outline of Peer Review in Armenia

The review was conducted based on country reports submitted by target country, as well as on-site interview survey. The reviewer teams identified strengthens and weaknesses of the target countries and then developed recommendations for further promoting disaster risk reduction in the target country.

< Themes for Reviews>

Activity of the Disaster Risk Reduction on nursing homes and orphanages in Armenia

< Reviewer Team>

- Prof. Aiko Sakurai, Associate Professor, Graduate School of International Studies, Kobe University, Japan (Team Leader)
- Dr. Renato U. Solidum, Jr, Director, Philippine Institute of Volcanology and Seismology, Philippines
- Researcher, ADRC

<Accompanied Counterpart (Ministry of Emergency Situations (MES), Republic of Armenia)>

- National Survey for Seismic Protection (SSP) Agency, Western Survey for Seismic Protection (WSSP) Agency

<Schedule of the review>

February - March 2014 (The interview and field survey was conducted on 24 to 27 February)

Fig. 5-2-1-6 Workshop at MES

Fig. 5-2-1-7 Interview at Nursing Home in Yerevan city

The reviewer team visited and conducted interview survey to the relevant organizations. Also, the team conducted inspections of nursing homes, orphanages and schools. Based on the country report submitted from SSP and the result of the interview and the inspection survey, the team discussed for compiling a draft review report with all findings and recommendations. The summary of findings was introduced in the evaluation meeting, and the final review report was compiled among review team members after returning from Armenia.

The outline of the final report is as follows:

<Summary of the evaluation and Suggestions>

- In all of the visited institutions, directors were very much concerned about the safety of residents during earthquake incidents. Although some measures are taken by each institution, but a comprehensive approach is not enough. With a support of SSP, the team at each institution needs to prepare a manual on earthquake preparedness and response.
- From a disaster management perspective, all the institutions visited firstly need to establish a team responsible for disaster management.
- Building inspection should be conducted at all the nursing homes and orphanages in order for them to identify safer places in the facility.
- With all the above preparations in place, evacuation drills and training should be executed.
- Experiences at the selected institutions should be shared among all the relevant facilities in Armenia.
- School No.155 as a good show case to share with orphanages and nursing homes. For example, tbe School No.155 made an agreements of cooperation with neighbors in emergency situations, and clarification of the role during evacuation, not only the staffs but also the residents, and verification of the building safety.
- Since this project is very good and practical, share the project experiences with other ADRC member countries.

5-2-2 Strengthening Private Sector's Disaster Resilience in APEC Region

(1) Background

The private sector plays a pivotal role in reducing economic damage and regional impacts. As its supply chains are closely intertwined, a single disaster could affect the economic activities of the entire region.

In 2011 ADRC conducted a survey on BCP Status of private sector in the APEC region and another survey focusing on small and medium sized enterprises (SMEs) in the region in 2012.

These surveys revealed that BCP development and awareness level of SMEs is still low and they lack in BCP expertise. Also there is need for general guidelines and public support system.

(2)Guidebook on SME Business Continuity Planning

Followed by the abovementioned surveys, the ADRC developed Guidebook on SME Business Continuity Planning in cooperation with APEC Small and Medium Enterprise Working Group (SMEWG) in 2013. The guidebook introduces easy 10 steps to build BCP, which are based on ISO22301 Business Continuity Management Standard System. After translated into local languages in the region, the booklet intends to be utilized in the activities and training for business entities.

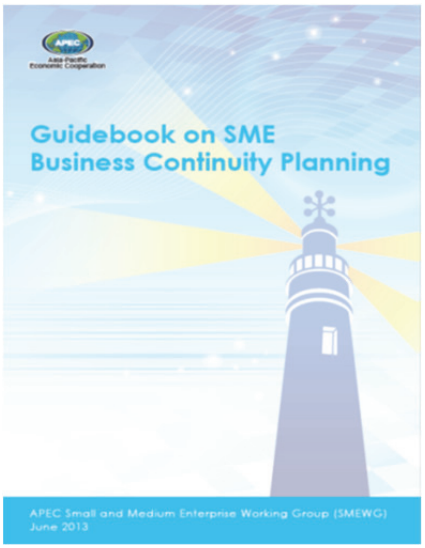


Figure 5-2-2-1 Guidebook (cover)

Step 1	Determine BCP Purpose, Scope and Team
Step 2	Prioritized Activities and Recovery Time Objective
Step 3	What Do You Need to Resume Key Activities?
Step 4	Risk Assessment – Know Your Disaster Scenarios
Step 5	Do Not Forget Pre-Disaster Protection and Mitigation
Step 6	Emergency Response to Disaster
Step 7	BC Strategies to Early Resumption
Step 8	Be Financially Prepared
Step 9	Exercise Makes Your Plan Functional
Step 10	Ongoing Review and Improvement

Figure 5-2-2-2 10 Steps

5-2-3. The Project for Strengthening the Capacity of Seismic Disaster Risk Management in Ulaanbaatar City, Mongolia (Technical cooperation project of JICA)

(1) Background

Mongolia, a landlocked country in East and Central Asia, whose population is 2.78 million, GDP per citizen is 2,207USD and area is 1.56 million km2, is prone to some natural hazards such as heavy rain, storm, and flood.

In Ulaanbaatar (hereinafter referred as "UB"), the capital of Mongolia, the number of unfelt earthquakes has been increasing since 2005, especially its trend has been more obvious after 2009. A French research institute pointed out in 2010 that UB City and its suburbs are surrounded by 4 faults including newly discovered ones which might cause the earthquakes of Magnitude 7 (M7) level. Also according to the 2000 simulation by National Academy of Mongolia, it is predicted that approximately 300 buildings and 60,000 citizens would be affected if the M7 level earthquake hits UB City.

(2)Objective and outline

The objective of the project is to strengthen the capacity for seismic disaster risk management in UB City and to transfer relevant skills and technologies to personnel concerned with the Project. And remarkable outcomes of the project are as follows;

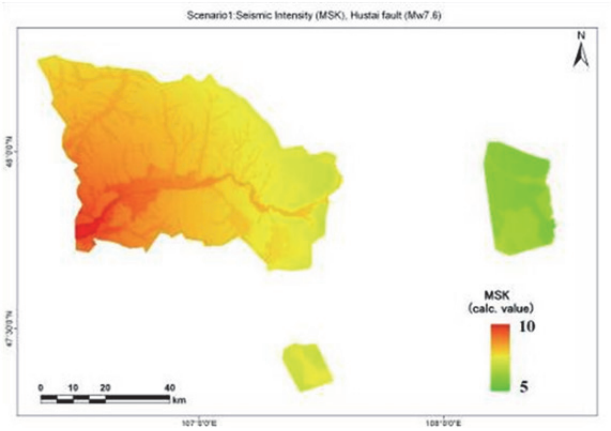


Fig.5-2-3-1 MSK intensity of the Scenario 1

1) Formulation of integrated seismic risk map for UB,
2) Revision of regional seismic disaster risk management plan,
3) Preparation of the draft construction guideline for middle-high storied building considering seismic disaster risk resilient urban development and
4) Capacity development of the relevant authorities and citizens in seismic disaster risk management

Counterpart: UB City, Emergency Management Department of UB (EMDC)

Implementation period: February 2012 - October 2013

(3) Outcome

The outcomes of the research project are as following, the final report including these outcomes and recommendations for future to prioritize measures are developed. Furthermore, the final outcomes and recommendations are reported to Deputy Prime Minister, in charge of disaster management in Mongolia.

1) Formulation of integrated seismic risk map for UB

Among the active faults in and around the UB city, two earthquake scenarios were set. A deterministic method for ground motion evaluation was conducted under the maximum earthquake estimated on the target fault.

① Scenario 1: The case of the Hustai fault earthquake (Mw7.6)

② Scenario 2: Integrated maximum value of Emeelt fault (Mw7.0) and Gunjiin fault (Mw6.6)

Both in the cases of Scenario 1 and Scenario 2, in the city area of UB, the calculated MSK scale seismic intensity are VIII-IV.

According to the calculated seismic intensity, damages of building, road, bridges and lifelines and etc. were estimated. Areas of spreading fire were also estimated. The estimation is used to revise the regional seismic disaster risk management plan.

2) Revision of regional seismic disaster risk management plan

Earthquake Scenario is analyzed to understand what may happen and how to take actions or implement countermeasures assuming earthquake occurs evening of winter because evening is the time of using fire for cooking and winter is the difficult season for emergency response. Scenarios are for Emergency Management Headquarter, Search and Rescue, Medical Care, Evacuation, Food and Drinking Water supply, Electricity Supply, Heating Water Supply, School Education, Temporally and Permanent Housing Supply, Debris Treatment and Life Rehabilitation. According to the scenarios, items needed to be revised were pointed out from the present earthquake disaster prevention plan of UB city, and detail proposals for high priority items were proposed.

3) Preparation of the draft construction guideline for middle-high storied building considering seismic disaster risk resilient urban development

Following guideline was established by collaboration of the project team and counterpart.

- Current issues
- Target performance of buildings
- Capacity evaluation of existing buildings

Fig.5-2-3-2 GIS data utilization training

・Upgrading measures
・Promotion policy for upgrading
・Suggestions

4) Capacity development of the relevant authorities and citizens in seismic disaster risk management

The following activities were carried out in this project.

・Study meetings of hazard and risk assessment methods
・Training course in Japan
・Study meetings of earthquake disaster management for EMDC staffs
・Earthquake Disaster Management awareness activities WS
・Earthquake Disaster Management awareness campaign

Fig.5-2-3-3 Final report to Deputy Prime Minister

5-2-4 Technical Cooperation Project in Indonesia

5-2-4-1. Background of the Project

Indonesia is a disaster prone country which is frequently affected by various types of natural disasters, such as earthquakes, volcanic eruptions, and Tsunamis. Examples of such disasters and resulting damage in recent years are: the Indian Ocean earthquake and tsunami in December 2004 and the Java earthquake in May 2006. These disasters have raised the awareness on the importance of disaster management. The government of Indonesia, upon these occasions, enacted Law No. 24 on Disaster Management in 2007, and strengthened the disaster management systems of the country through establishing the BNPB (National Agency for Disaster Management).

However, BNPB, which has only a short history, does not have an adequate organization structure, budget, skills, knowhow or staff, and it is difficult for BNPB to give directions or sufficiently support the local governments in establishing BPBD (the Regional Agency for Disaster Management) or in formulating the Regional Disaster Management Plans. Additionally, although each local government proceeds with establishing its own BPBD as a permanent main agency in case of disaster, the effective activities do not seem realistic since their knowledge and experience on disaster management are lacking.

Against this background, the JICA Technical Cooperation Project "the Project for Enhancement of the Disaster Management Capacity of BNPB and BPBD" was formulated with a goal of enhancing the disaster management capacity of BNPB, provincial BPBDs in North Sulawesi and West Nusa Tenggara provinces, and regency/municipality BPBDs in both provinces for reducing damage from disasters in Indonesia.

The ADRC with the Oriental Consultants Co., Ltd, a partner agency was commissioned the Project and started the project activities based on the proposal from November 2011.

5-2-4-2. Outline of the Project

The outline of the project is as shown in the below table.

【Project Period】
November 2011 – December 2015 (4 years)
【Project Purpose】
Enhancement of the disaster management capacities of BNPB, the provincial BPBDs, and the regency/municipality BPBDs in the pilot area
【Project Target Areas】
1. Jakarta (BNPB) 2. provincial BPBD of North Sulawesi province and regency/municipality BPBDs within it 3. provincial BPBD of West Nusa Tenggara province and those of its regencies/municipalities
【Expected Outputs】
[Output 1]: Improvement of the capacity for the regency/municipality BPBDs to accumulate disaster data/information that is fundamental for disaster risk management and improvement of the accuracy of such data/information. [Output 2]: Creation of Hazard and Risk Maps at the regency/municipality level in the pilot area. [Output 3]: Formulation of Regional Disaster Management Plans for regency/municipalities in the pilot area. [Output 4]: Disaster Management Drills are to be conducted in the pilot provinces as well as in regencies/municipalities in the pilot provinces

From the ADRC, the experts on “Disaster Information System” for Output 1 and “Community Based Disaster Risk Management” for Output 4 have joined the activities. As of March 2014, "Format for Collection and Reporting of Disaster Data/Information" and "the Technical Guideline for Acquisition and Accumulation of Disaster Data/Information for Regencies/Municipalities" were developed as outcomes of the Output 1 activities. And "Report of Activities for “Disaster Resilient Village” Program -- As a Good Practice Model" was compiled with the template of the village disaster management plan as an outcome of the Output 4 activities.

5-2-5 Technical Cooperation Project in the Philippines

5-2-5-1. Background of the Project

The Republic of the Philippines has made substantial efforts for strengthening disaster risk management including of the development of Strategic National Action Plan for Disaster Risk Reduction (2009-2019) after the adoption of Hyogo Framework for Action 2005-2015 in the WCDR held on January 2005.

In recent years, the Philippine Government has been shifting the approach to disaster risk management from "Post Disaster Response" to "Proactive Disaster Management," which is an approach that focuses on mitigation and preparedness. The "Philippine Disaster Risk Reduction and Management Act of 2010 (RA No. 10121)" was enacted in May 2010, creating the legal framework to implement a new approach to disaster management called Disaster Risk Reduction and Management (DRRM). Under the DRRM Act, the NDCC (National Disaster Coordinating Council), the highest decision-making body related to disaster management on the national level, was reorganized as the National Disaster Risk Reduction and Management Council (NDRRMC) and the Office of Civil Defense (OCD) was appointed as the secretariat of the council and the central and leading organization for DRRM activities.

In order to implement the DRRM activities under the new approach, the needs for preparing the various plans as well as strengthening the capabilities of related organizations are rapidly increasing. The OCD is also facing challenges in organizational and human resource capabilities enhancement.

Against this background, the JICA Technical Cooperation Project "The Disaster Risk Reduction and Management Capacity Enhancement Project" was formulated with a goal of strengthening capacity on DRRM of OCD. The ADRC has participated in the project as a support organization and provided technical cooperation activities based on the proposal from March 2012.

5-2-5-2. Outline of the Project

The outline of the project is as shown in the below table.

【Project Period】
March 2012 – February 2015 (3 years)
【Project Purpose】
Capacity on DRRM of OCD is strengthened
【Project Target Areas】
Metropolitan Manila (National Government) and some pilot areas (2-3 areas)
【Expected Outputs】
[Output 1]: Planning and implementing capacity of OCD on DRRM is strengthened. [Output 2]: DRRM activities including information management are standardized. [Output 3]: Human resources development plan for DRRM is developed. [Output 4]: Support system to Community Based Disaster Risk Reduction and Management (CBDRRM) is strengthened.

The ADRC has dispatched the expert on “Human Resource Development and Planning” for Output 3 for the Project.

As of March 2014, Establishment of the "National DRRM Education and Training Plan" had been discussed and the activities for formulation of the DRRM training modules for local government officers, national government offices, and private sectors as priority training programs had been conducted.

5-3. Promoting Cooperation with Member Countries, International Organizations and NGOs

The Asian Disaster Reduction Center (ADRC) places high priority on the development of institutional and personal network to share disaster information in the Asia region. Developing personal networks between professionals and their counterparts in member countries, adviser countries, and observer organizations is vital to promoting cooperation on disaster reduction efforts in Asia. Therefore, the ADRC invites management level officials, including deputy directors, directors, and managers, to its annual ADRC International Meeting to encourage interpersonal exchanges.

(1) 4th Global Platform for Disaster Risk Reduction

The ADRC and International Recovery Platform (IRP) participated in the 4th Global Platform for Disaster Reduction (GP), hosted by the UN International Strategy for Disaster Reduction (UNISDR) from 21 to 23 May 2013 at the International Conference Centre in Geneva, Switzerland. The 4th GP brought together more than 3,500 participants from 171 countries, including representatives of national and local governments, inter-governmental organizations, nongovernmental organizations, business, academia, and local communities.

The aim of the 4th GP was to continue the momentum on durable and sustained efforts by all actors to take shared responsibility in reducing risks and reinforcing resilience in our communities. The 4th GP provided an opportunity to review progress on the Hyogo Framework of Action (HFA) and to consult on the framework for the next term, the so-called "HFA2."

Mr. Ueli Maurer, President of the Swiss Confederation, Mr. Jan Eliasson, UN Deputy Secretary-General, the Deputy Prime Minister of Namibia, and the Civil Defense Minister of New Zealand gave the welcome remarks at the opening ceremony. These were followed by about 170 official events, such as the official statements by participant countries and reports by participating organizations on their activities. That same afternoon, ADRC held a special meeting entitled "Regional Mechanisms for Disaster Risk Reduction in Asia: Building Resilience through Innovation and Partnerships," which it co-hosted with the Asian Disaster Preparedness Center (ADPC) and Asian Disaster Rescue and Response Network (ADRRN). These three organizations introduced the typical activities undertaken to promote their missions. And several participants stressed the importance of strong cooperation between Asian regional organizations such as ADRC, ADPC, and ADRRN.

There were also meetings held among participants during the conference period. On 22 May, the executive director of ADRC had an opportunity to meet with the delegate from Iran, Mr. Ghadami, Deputy Minister of the Interior and Head of the National Organization for Disaster Reduction (NDMO). As Iran became an ADRC-member country last December, Mr. Ghadami expressed high hopes of receiving support from ADRC to help it strengthen its DRR capacity. Both sides reaffirmed their mutual interests in developing cooperation

between ADRC and NDMO. Later that day, information about this meeting was posted on the NDMO web site.

On the third day of the session, the Cabinet Office of Japan and IRP organized a side event on “Lessons on Recovery from Mega-Disasters” which was attended by 124 people from ADRC, IRP partners, international and regional institutions, governments, and NGOs. It showcased effective recovery experiences from the governments of New Zealand, Japan, the US, and Pakistan. The event further explored measures for integrating recovery in development planning as well as efforts to achieve effective recovery strategy and frameworks. It also highlighted the key strategic recommendations on recovery for the Post-2015 DRR Framework (HFA2).

At the closing ceremony, the chairperson, Mr. Dahinden, Director-General of the Swiss Agency for Development Cooperation, released the draft of the Chair’s Summary, and Ms. Wahlström extended her gratitude to the participants. The Japanese government's delegate, Mr. Yoshitami Kameoka, Parliamentary Secretary for Disaster Management, declared that the next UN World Conference on Disaster Reduction(WCDR) will be held in March 2015 in Sendai City, Japan.

(2) 1st Meeting of the Executive Committee and Development Support Group for the 6th Asia Ministerial Conference for Disaster Risk Reduction (AMCDRR)

United Nations International Strategy for Disaster Reduction (UNISDR) has hosted AMCDRR every two years to discuss DRR topics in Asian countries. The 6th AMCDRR will be held in Thailand in June 2014. For the purpose of deciding the framework of the Conference, 1st Executive Committee (EC) of 6th AMCDRR was held on 5 to 6 August in Bangkok.

The EC was hosted by UNISDR and the Thai Government. The Indonesian Government which has hosted the 5th AMCDRR, the Government of Japan which will host the next United Nations World Conference on Disaster Risk Reduction in 2015 (WCDRR2015), the donor agencies such as USAID, AusAID and JICA, World Bank, Asian Development Bank and the Asian regional organizations such as ADPC, ADRRN and ADRC participated in this meeting.

In the EC, the framework of 6th AMCDRR was discussed. In order to consolidate the proposal for WCDRR2015 from the Asian region, EC participants determined “Promoting investments for resilient nations and communities” as the main theme of the Conference and selected three sub-themes; 1) Enhance resilience at local levels, 2) Increase public investments for disaster and climate risk management to protect development gains and 3) Private sector role – Public & private partnerships for disaster risk reduction.

(3) 2nd Meeting of the UNISDR Asia Partnership for 2013

The 2nd UNISDR Asia Partnership (IAP) meeting for the year 2013 was held on 5 to 7 November 2013 in Bangkok, Thailand. The main focus of this IAP was the substantive preparation of the 6th Asia Ministerial Conference on Disaster Risk Reduction (AMCDRR); engagement processes for stakeholder groups and partners in the AMCDRR and World Conference on Disaster Risk Reduction (WCDRR); and the HFA2 (future DRR framework) consultation and background preparation for the HFA2 input from the region.

At the meeting, ADRC expressed its contribution to the substantive in the “key area” such as “reducing exposure/underlying risk factors” and “incentive for private sector in DRR”, and to the consultation process through “the Asian Conference on Disaster Reduction (ACDR).”

(4) 3rd Session of UNESCAP's Committee on Disaster Risk Reduction in Bangkok

The 3rd session of the Committee on Disaster Risk Reduction, organized by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), was held at the United Nations Conference Centre in Bangkok, Thailand from 27 to 29 November 2013. The forum's many participants included officials from UNESCAP member countries as well as experts from intergovernmental organizations, and also ADRC.

During the session entitled “Mainstreaming Disaster Risk Reduction into Development,” we praised the ability of the governments and people of UNESCAP member countries to promote recovery and reconstruction following large-scale disasters. We also noted that ADRC and IRP have long been assisting ADRC member countries in their efforts to utilize Japanese technologies, experiences, and lessons related to disaster risk reduction. This assistance includes the Visiting Researcher (VR) Program, a capacity building program wherein ADRC offers three months of training to government officials. In fact, ADRC has been pleased to see many former VRs now playing a central role in the ministries in charge of disaster management in their home countries.

We also emphasized the importance of everyday preparedness by citizens, in addition to government efforts, when a massive disaster strikes. Two major events, ADRC’s “Asian Conference on Disaster Reduction,” to be held in Tokyo on 4 to 6 March 2014, and IRP’s “International Recovery Forum,” to be held in Kobe on 21 January 2014, will present evidence of the progress made in the areas of disaster reduction and preparedness in preparation for the next UN World Conference on Disaster Reduction scheduled for 2015.

ADRC/IRP, together with UNESCAP and its member countries, will continue to support efforts to strengthen the disaster reduction capabilities of affected communities.

(5) 6th Asia-Pacific Economy Cooperation (APEC) Emergency Preparedness Working Group (EPWG) Meeting

APEC is the premier Asia-Pacific economic forum whose primary goal is to support sustainable economic growth and prosperity in the Asia-Pacific region, championing free and open trade and investment, promoting and accelerating regional economic integration, encouraging economic and technical cooperation, enhancing human security, and facilitating a favorable and sustainable business environment.

The EPWG was first established as APEC's Task Force for Emergency Preparedness (TFEP) by APEC Senior Officials in 2005 and mandated to coordinate and facilitate emergency and disaster preparedness within APEC. In 2009 APEC Leaders reaffirmed the importance of enhancing human security and reducing the threat of disruptions to business and trade in the Asia-Pacific region. Recognizing the importance of its work, in 2010 the TFEP was upgraded in status to a working group. Now the EPWG continues to play a constructive role in enabling the region to better prepare for and respond to emergencies and disasters by helping to reduce the risk of disasters and building business and community resilience. By sharing expertise and collaborating on emergency preparedness issues, APEC members strengthen their capacity to mitigate emergencies and disasters. In recent years, the global economic damage caused by the Great East-Japan Earthquake and Thai flood in 2011 urged APEC EPWG to disseminate the business continuity plan (BCP) especially among small and medium-sized enterprises (SMEs). The 6th EPWG was held on 17 to 18 Feb in Ningbo, China,and ADRC participated in the meeting.

Funded by APEC, ADRC has researched the BCPs among small and middle-sized enterprises and edited the guidebook on BCP considering the rapid economic growth in Asia region.

At the beginning of the meeting, Executive Director of ADRC was elected as co-chairman of EPWG. Then the co-chair and member economies reported the activities in 2013 and proposed the work plan of 2014, which encourages to continue the dissemination of BCM among SMEs and to enhance the resilience of supply-chain, and launches the new project titled “The Workshop of a Space-and-ICT based disaster management system to enhance supply-chain resilience and BCP.”

(6) 8th Integrated Workshop of the Typhoon Committee

ADRC participated in the 8th Integrated Workshop of the Typhoon Committee held in conjunction with the 2nd Training and Research Coordination Group Forum jointly organized by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), the World Meteorological Organization(WMO) Typhoon Committee Secretariat, and the Macao Meteorological and Geophysical Bureau in Macao on 2-4 December 2013. The more than 100 participants who attended the meeting included representatives of Cambodia, China, D.P.R. Korea, Japan, Lao, Malaysia, the Philippines, the

Republic of Korea, Thailand, the US, and Vietnam, as well as representatives of the organizing institutions. The participants discussed“Forecasting, Warnings, and DRR Strategies in the Mitigation of Tropical Cyclone Impacts in a Multihazard Environment,” which was the main theme of the meeting.

For the Disaster Risk Reduction Working Group, Japan's Cabinet Office gave a presentation on the damage caused by typhoons in 2013 and on ADRC activities such as the Visiting Researcher Program. Delegates from the Philippines and Vietnam gave a presentation on the damage caused by Typhoon Haiyan and the current status of response efforts, and the WMO and Japan Meteorological Agency reported on the assistance they offered, such as the provision of typhoon information. As a result, there were fruitful discussions on such topics as the enhancement of cooperation among member countries. During this session, the WMO suggested that a manual be developed for processing emergency requests from member countries, as similar requests are likely to be made in the future, and that an emergency network be constructed among the Typhoon Committee Secretariat and member countries. A decision was made to investigate this issue further.

The Typhoon Committee has two other working groups covering meteorology and hydrology, in addition to the working group on disaster risk reduction. This time, the three working group meetings and the Training and Research Coordination Group Forum were held together as an integrated event. For more information, visit the typhoon committee website:

http://www.typhooncommittee.org/8IWS_2TRCG/8IWS_2TRCG.html.

(7) International Forum on Recovery and Reconstruction Following China's Sichuan Earthquake

The Forum on Post-Disaster Revival and International Disaster Reduction: Experience and Lessons from 5-Year Wenchuan Post-Disaster Reconstruction and Lushan Earthquake Relief, organized by Sichuan University and Hong Kong Polytechnic University, was held in Chengdu, China from 8 to 9 May 2013. The forum's more than 300 participants included experts ranging from government officials to academic experts across China as well as ADRC and International Recovery Platform (IRP).

During the keynote speech, ADRC and IRP praised the ability of the Chinese government and people to promote recovery and reconstruction efforts following the Wenchuan Earthquake that struck Sichuan Province in May 2008, and we have long been involved in facilitating China’s efforts to utilize Japanese technologies, experiences, and lessons related to earthquake disaster risk reduction.

We also emphasized the importance of everyday preparedness by citizens, in addition to government efforts, when a massive disaster strikes. In this regard, the Lushan Earthquake that occurred in late April showed evidence of the progress that has been made in disaster reduction and preparedness over the past five years.

In commemoration of the fifth anniversary of the Wenchuan Earthquake, the HK PolyU Institute for Disaster Management and Reconstruction (IDMR) has been established at Sichuan University. After the opening ceremony, a signing ceremony of the MoU between ADRC, IRP and IDMR was held. Both organizations are committed to promoting the effective disclosure and sharing of information related to disaster prevention and post-disaster reconstruction, developing disaster prevention and post-disaster reconstruction programs, and educating people in the field of disaster prevention and post-disaster reconstruction. They are dedicated to cooperation and mutual participation in the following areas:

Fig. 5-3-1 Signing Ceremony of the MoU between ADRC and IDMR

1) Promoting personnel exchanges among research staff, faculty, and students
2) Giving priority to joint research projects to promote collaborative research
3) Promoting the sharing of research findings and professional knowledge

ADRC, together with the IDMR, will continue to support efforts to strengthen the disaster reduction capabilities of the affected communities.

(8) Consultation Workshop on Developing a Capacity-Building Strategy through the Establishment of a Disaster Management Training Center in Myanmar

Myanmar is a disaster prone country. In May 2008, Cyclone Nargis left 130,000 people either dead or missing. Subsequently, Myanmar was affected by natural disasters including floods and landslides in 2010 and a heavy earthquake in 2011.

After those natural disasters, the government of Myanmar prepared the “Myanmar Action Plan for Disaster Risk Reduction" in 2012, and has been promoting various DRR projects based on that plan. The government of Myanmar decided to establish a "Disaster Management Training Center" in order to enhance disaster prevention awareness and to train personnel involved in disaster management, and planned to build the facility for the Center over three years starting in 2013.

From 2 to 4 July, with the aim of offering proposals and advice to the government of Myanmar regarding the training and educational content to be offered through the center, a workshop was held in Nay Pyi Daw, the new capital city of Myanmar. It was sponsored by the International Cooperation Agency of Japan (JICA) and the United Nations Development Program. The workshop was attended by about 80 people representing Asian governments (including Myanmar), international organizations, and NPOs. ADRC staff member was also invited to attend.

The workshop included introducing the education and training centers in Thailand and Singapore, as well as presentations by JICA and the Asian Disaster Preparedness Center on their international capacity-building businesses. ADRC also presented information on its capacity-building activities for Myanmar, including the Visiting Researcher program. Under this program, young officials in member countries are invited to Japan to participate in a DRR training program for local government officials sponsored by the Japan-ASEAN Integration Fund.

Fig. 5-3-2 Opening Speech by the Union Minister of Social Welfare, Relief and Resettlement

Fig. 5-3-3 Presentation by Executive Director of ADRC

6. The International Recovery Platform (IRP): History and Current Activities

6-1. The Establishment of the IRP

While the capacity of the UN system for disaster response and humanitarian assistance are widely recognized, there is currently a vacuum in terms of the UN's capacity and system-wide mechanisms for post-disaster recovery efforts, particularly those with a risk reduction focus.

Experience increasingly affirms that the post-disaster recovery phase provides a critical opportunity to shift the focus from saving lives to restoring livelihoods, and is an important time for introducing measures to reduce future disaster risk. Effective recovery can help close the gap between relief and development, and can transform disasters into opportunities for sustainable development. This occurs when efforts are made to support local and national recovery processes at an early stage, when risk reduction considerations are factored into all recovery activities, and when the synergies between development, humanitarian, and other actors involved in the response phases are properly channeled. A successful recovery effort, then, is predicated on having advance agreements and mechanisms in place so that the recovery process is effectively conceived and managed, and is initiated in a timely manner. This includes such measures as appropriate assessment methodologies, pre-established resource mobilization mechanisms, surge capacity to support UN Country Teams, and standing coordination mechanisms.

Shared concerns related to the UN approach and processes for post-disaster recovery have resulted in the formulation of a joint initiative, the International Recovery Platform (IRP), by the UN system, ADRC, and other partners, with the encouragement and support of Japan as well as other donors and key program countries. This initiative was discussed at the 2005 UN World Conference on Disaster Reduction (WCDR) during session 4.9 on Post Disaster Recovery. Representatives from the ADRC, UNDP, UN-HABITAT, ILO, and other concerned UN agencies expressed their respective agency commitments and support for the proposed international platform for recovery. The meeting resulted in a recommendation for the establishment of the International Recovery Platform (IRP).

In four months after the WCDR, the International Seminar on Post Disaster Recovery, in support of the IRP, was held at Hyogo House on 11-13 May 2005. The IRP was officially established in Kobe**.**

6-2. The Governance Structure of the IRP

The IRP currently consists of 17 governments, UN agencies, and international organizations including ADRC (as of March2014).* The IRP focuses on the following three priority activities for recovery: (a)Knowledge Management and Advocacy, (b) Training and Capacity Building and (c) Enhancing Recovery Operations.

As described in the Terms of Reference, the IRP at Kobe functions as the IRP secretariat and is responsible for convening IRP Steering Committee meetings and disseminating information on IRP activities and outcomes.

* IRP members: Asian Disaster Reduction Center (ADRC), Hyogo Prefectural Government, International Federation of Red Cross and Red Crescent Societies (IFRC), International Labour Organization (ILO), Ministry of Foreign Affairs of Italy, Cabinet Office of Japan, Swiss Agency for Development and Coordination (SDC), United Nations Environment Programme (UNEP),United Nations Development Programme (UNDP), United Nations Human Settlements Programme (UN-HABITAT), United Nations Secretariat of the International Strategy for Disaster Reduction (UNISDR), United Nations Office for the Coordination of Humanitarian Affairs (UN/OCHA), the World Bank, World Health Organization (WHO), Asian Development Bank (ADB), United Nations Centre for Regional Development (UNCRD), United Nations Office for Project Services (UNOPS).

6-3. IRP Activities in FY 2013

6-3-1. "IRP's International Recovery Forum 2014"

"The IRP's International Recovery Forum 2014 ～The Role of Private Sector in Disaster Recovery～", jointly organized with ADRC, was held in Kobe, Hyogo, Japan on 21 January 2014. Highlighting the important role of private sector in disaster recovery and reconstruction, the Forum showcased the lessons shared by policymakers, experts, and practitioners. With over 155 participants from the national governments, international organizations, and universities around the world, the keynote speakers from IBM Japan/KEIDANREN, Federal Management Agency (FEMA), and Department of National Defense (DND) of the Philippines imparted the important message of engaging private sector in disaster risk reduction and recovery to further avoid greater economic losses. In addition, the speakers from International Organization of Employees (IOE), Development Bank of Japan, South Asia Association of Regional Cooperation Disaster Management Center (SDMC), El Colegio de Mexico, World Bank, Tohoku University, Intergovernmental Authority on Development (IGAD), and JICA presented specific initiatives that promote collaboration between private sector and public sector. The lessons from these initiatives are crucial in further accelerating the learning by conscious application to areas with similar situations.

Fig. 6-3-1 "IRP's International Recovery Forum 2014"

The panel discussion, which dwelt on the role of private sector in the implementation of the

recovery component of HFA2 (post-2015 framework for DRR), proactively facilitated the exchange of new ideas and strategies to ensure that recovery is adequately reflected in the global framework. The panelists, comprising experts from FEMA, DND, IOE, Tohoku University, and JICA, recommended some actions to effectively engage private sector in DRR and recovery, including strengthening the platforms for sharing of information, legal frameworks for coordination, and business continuity planning. The outcomes of the discussions will inform the recovery component of post-HFA framework which will be presented at the Third World Conference on Disaster Risk Reduction, 14-18 March 2015 in Sendai City, Japan.

The key dignitaries who also delivered relevant message on recovery and reconstruction included Mr. Katsuju Sasaki (Deputy Director-General of the Cabinet Office of Japan) and Mr. Toshizo Ido (Govern Hyogo Prefecture).

6-3-2. Participation in the 4th Session of the Global Platform for Disaster Risk Reduction

The 4th Session of the Global Platform for DRR organized by UNISDR was held from 19 to 23 May 2013 in Geneva, Switzerland.

Fig. 6-3-2-1 Forum "Lessons on Recovery from Mega-Disasters"

The IRP secretariat, the Cabinet Office of Japan and ADRC organized the Forum "Lessons on Recovery from Mega-Disasters" with the participation of 124 people from IRP partners, international and regional institutions, governments and NGOs, etc. The forum was also organized as the last session of the Expert Group Meetings on the Great East Japan Earthquake (GEJE) and the completion of the "Recovery Status Report on the GEJE" was announced in the forum.

Following the special remarks by Mr. Yoshitami Kameoka, Parliamentary Secretary of the Cabinet Office of Japan, and the message from Mr. Toshizo Ido, Governor of Hyogo Prefecture, delivered by Mr. Akinori Sugimoto, Superintendent for Disaster Management of Hyogo Prefecture, Prof. Yasuo Tanaka of Universiti Tunku Abdul Rahman moderated a panel discussion with experts serving as panelists, namely: Mr. Roger Sutton, Chief Executive, Canterbury Earthquake Recovery Authority (CERA), New Zealand; Prof. Yoshimitsu Shiozaki, Ritsumeikan University, Japan; Mr. David Trissell, Federal Emergency Management Agency (FEMA), USA, and Lt. Gen. (Ret.) Nadeem Ahmed, Former Chairman, National Disaster Management Authority (NDMA) Pakistan. Each panelist made a presentation on recovery experiences and good practices of each country.

They further explored measures for integrating recovery in development planning as well as

efforts towards effective recovery strategy and frameworks, and also highlighted the key strategic recommendations on recovery for HFA2.

IRP also took advantage of disseminating its brochures and publications to the participants in the Global Platform at the Market Place. In particular, Recovery Status Report on the Great East Japan Earthquake, along with other recovery reports and guidance notes on recovery, was showcased at the marketplace.

Fig. 6-3-2-2 Dissemination of the publications

6-3-3. "IRP Workshop on Disaster Recovery Planning" (Philippines and other countries)

The International Recovery Platform (IRP) and Asian Disaster Reduction Center (ADRC) had facilitated "IRP Workshop on Disaster Recovery Planning", 19-21 February 2014 in Cebu City, Philippines. The main objective of the workshop was to provide technical assistance in formulating the recovery plans of local governments impacted by super typhoon Haiyan. With its experts in Cebu City, IRP/ADRC shared a collection of global experiences and lessons on disaster recovery, which served as reference in establishing a temporal link between preparedness, recovery, and sustainable development. The workshop was also aimed at strengthening the local capacities for integrating disaster risk reduction and climate change adaptation in disaster recovery planning and long-term development programming.

Fig. 6-3-3 IRP Workshop on Disaster Recovery Planning (Cebu, Philippines)

Over 50 local government officials from the Provincial Government of Cebu, Provincial Government of Leyte, Provincial Government of Samar, City Government of Tacloban, Municipal Government of Palo (Leyte), and Municipal Government of Basey (Samar) participated in the workshop to explore strategies and actions on recovery and reconstruction from the super typhoon. Additionally, partners from UNISDR-GETI and Office of Civil Defense (OCD, Philippines) also participated to further contribute in the discussions and make sure that partners' knowledge and experiences are shared with the impacted local governments.

The acting administrator of OCD General Romeo F. Fajardo along with the administrator of the Province of Cebu Atty. Mark Tolentino and OCD-Region 7 director Ms. Dina Morante were present at the opening to grace occasion and inspire the participants to work collaboratively and effectively. During this event, the participants were exposed to various options to "build back better" after a disaster. A wide array of strategies and actions from the “IRP Guidance Notes on Recovery”, developed by IRP, served as options in which the local governments can adopt, if suited to their respective contexts. The lessons on recovery, as compiled by IRP/ADRC from various experiences around the globe, provided an additional input to build on the existing initiatives of local governments. At the end of the workshop, each local government came up with an outline of Recovery Plan, including a list of strategies, actions, and responsible offices/organizations to implement the proposed actions.

In addition to the above-mentioned workshop in Cebu, IRP organized workshops in India, Saudi Arabia, Ethiopia, South Sudan, Philippines (Makati City) and Lebanon in FY2013, with more than 200 participants in total.

7. Public Relations Activities

In order to enhance its visibility, to establish and maintain cooperative relationships with as many organizations as possible, and to contribute further to international efforts for disaster risk reduction, the ADRC has been using the mass media to conduct its public relations campaigns extensively, while actively involved in international conferences, lectures, and symposia.

7-1. Promotion through Mass Media

The ADRC has been making active efforts to attract TV, radio, newspapers and media coverage to publicize its activities not only to disaster reduction practitioners but also to the general public. Some of activities, media coverage and others are listed below.

TV Coverage

Media	Date	Station	Description
TV	26 Dec. 2013	SUNTV	"SUNTV News" and "News PORT" Researchers of ADRC reported the results of the survey on the devastated area by Typhoon Haiyan (Yolanda) in Philippines.
TV	22 Jan. 2014	NHK	" NHK World " International Recovery Forum 2014 (IRF2014) was held in Kobe, Japan on 21 January 2014.
TV	4 March 2014	NHK	"NHK News" Asian Conference on Disaster Reduction 2014 (ACDR2014) was held in Tokyo, Japan.

Newspaper and Magazine Coverage

Date	Name	Features
10 May 2013	VIETNAM NEWS WEB	Mr. Takahiro Ono, Visiting Researcher of ADRC, gave his comments regarding the Business Continuity Plan (BCP) at the APEC workshop in Vietnam.
18 December 2013	Kobe Shimbun (Newspaper)	4 staffs from ADRC, IRP and DRI are dispatched to Philippines for the survey on the devastated area by Typhoon Haiyan (Yolanda).
18 December 2013	Yomiuri Shimbun (Newspaper)	A Field survey team consisting of ADRC, IRP and DRI is dispatched to the devastated area by Typhoon Haiyan (Yolanda) in Leyte island, Philippines.
27 December 2013	Sankei Shimbun (Newspaper)	ADRC reported the results of the survey on the devastated area by Typhoon Haiyan (Yolanda) in Philippines.
22 January 2014	Kobe Shimbun (Newspaper)	International Recovery Forum 2014 (IRF2014) was held in Kobe, Japan.
22 January 2014	Asahi Shimbun (Newspaper)	International Recovery Forum 2014 (IRF2014) “The Role of Private Sector in Disaster Recovery” was held in Kobe, Japan on 21 January 2014.
5 March 2014	Kobe Shimbun (Newspaper)	Asian Conference on Disaster Reduction 2014 (ACDR2014) was held in Tokyo. High level government officials from 25 countries exchanged opinions on disaster prevention countermeasures.

7-2. Participation in International Conferences and Contribution to Magazines

In order to develop organic networks with international organizations and NGOs in addition to member countries, ADRC attended the following international conferences and contributed to magazines to increase its presence and to participate in discussions with relevant organizations on international cooperation for disaster risk reduction.

Table 7-2-2-1 International Conferences

Conference	Date	Venue	Sponsors	Attendee	Contributions
The 2nd Workshop for the Working Group on policy on Disaster Prevention and Reduction for Industrial Parks in East Asia	11 April 2013	Japan (Sendai)	Economic Research Institute for ASEAN and East Asia (ERIA)	Mr. Natori	Made a presentation on Japanese disaster reduction policies after the Great East Japan Earthquake (GEJE)
Workshop on Standard Operating Procedures for Coastal Multi-hazards Early Warning System	8-9 May 2013	Thailand (Bangkok)	UNESCAP, WMO Typhoon Committee	Mr. Ikeda	Introduced disaster prevention plans made by Japanese local governments and relevant disaster risk reduction (DRR) activities
International Forum on Recovery and Reconstruction of Sichuan Earthquake, China	11 May 2013	China (Doyang)	City of Chengdu, China, etc.	Mr. Kouchi	Participated in a panel discussion in the plenary session and made remarks on recovery from the Great Hanshin-Awaji Earthquake in urban areas
Global Platform for Disaster Risk Reduction 4th Session	21-23 May 2013	Switzerland (Geneva)	UNISDR	Mr. Natori Mr. Kouchi Mr. Akamatsu Mr. Potutan	Participated in sessions including opening ceremony, and held following events: "Regional Mechanisms for Disaster Risk Reduction in Asia", "Regional Mechanisms for Disaster Risk Reduction in Asia", "Recovering and Building Resilience after Disasters", and "Lessons on Recovery from Mega-Disasters"

8th Meeting of Typhoon Committee Working Group on Disaster Risk Reduction	29-30 May 2013	Rep. of Korea (Seoul)	UNESCAP, WMO Typhoon Committee, and National Emergency Management Agency (NEMA) of Rep. of Korea	Mr. Moriwaki	Discussed future activities of the working group, such as "Synergized Standard Operating Procedures for Coastal Multi-hazards Early Warning System (SSOP)" project, and strengthening international cooperation, etc.
Consultation Workshop on Developing Capacity Building Strategy through the Establishment of Disaster Management Training Center in Myanmar	2-4 July 2013	Myanmar (Nay Pyi Daw)	Government of Myanmar, JICA, and UNDP	Mr. Natori	Presented ADRC's capacity building activities for Myanmar, such as the Visiting Researcher program and the DRR training program for local government officials sponsored by Japan-ASEAN Integration Fund
The 1st Meeting of the Executive Committee and Development Support Group for the 6th Asia Ministerial Conference for Disaster Risk Reduction (AMCDRR)	5-6 August 2013	Thailand (Bangkok)	UNISDR	Mr. Natori	Discussed and determined framework of the 6th AMCDRR such as theme and sub themes of the conference
JICA Follow-Up Seminar "Comprehensive Disaster Management"	14-15 August 2013	Kazakhstan (Almaty)	JICA	Ms. Yoshida	Introduced Japanese efforts for community-based disaster risk management and shared information on ADRC activities, as well as management of a regional center
The 1st Saudi International Conference on Crisis and Disaster Management	8-9 Sep. 2013	Saudi Arabia (Riyadh)	Imam University	Mr. Moriwaki	Gave a presentation on "Lessons Learnt from the Great East Japan Earthquake", and introduced the efficacy of disaster prevention education

ESCAP Expert Meeting on Improving Disaster Data to Build Resilience in Asia and the Pacific	30 Sep. - 1 Oct. 2013	Japan (Sendai)	UNESCAP and Tohoku University	Mr. Natori	Introduced GLIDE, disaster event numbering system proposed by ADRC
The 2nd ISDR Asia Partnership meeting for the year 2013	5-7 Nov. 2013	Thailand (Bangkok)	UNISDR	Mr. Natori	Expressed ADRC's contribution to the substantive in the key areas such as "reducing exposure/underlying risk factors" and "incentive for private sector in DRR", and to the consultation process through "the Asian Conference on Disaster Reduction"
The 1st Sentinel Asia Joint Project Meeting Step-3 (JPTM)	27-29 Nov. 2013	Thailand (Bangkok)	JAXA and Asian Institute of Technology (AIT)	Mr. Sugiura	Reported on the status of the emergency observations that were implemented and presented the suggestions for improvement of the questionnaire that are sent after emergency observation
The 3rd session of the Committee on Disaster Risk Reduction	27-29 Nov. 2013	Thailand (Bangkok)	UNESCAP	Mr. Kouchi	Made remarks on how Japanese technology, experience and lessons learned in recovery from flood, earthquake, and tsunami disasters have been utilized for recovery from recent major disasters in Asian countries
The 8th Integrated Workshop of the Typhoon Committee	1-5 Dec. 2013	China (Macau)	UNESCAP, WMO Typhoon Committee, and Macau Meteorological and Geophysical Bureau	Mr. Moriwaki	Discussed on "Forecasting, Warning and DRR Strategies in the Mitigation of Tropical Cyclone Impact in a Multi-hazard Environment"

The 46th Session of the Typhoon Committee	10-12 Feb. 2014	Thailand (Bangkok)	UNESCAP and WMO Typhoon Committee	Mr. Moriwaki	Discussed action plan of the committee's three working groups on meteorology, hydrology and disaster risk reduction (DRR) in the next year as well as their activities in the last year
The 5th UN-SPIDER Regional Support Offices (RSO) Meeting	13-15 Feb. 2014	Austria (Vienna)	United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER)	Mr. Sugiura	Presented ADRC's activities and accomplishments as RSO as well as its future plans and exchanged opinions with the secretariat and other RSOs
The 6th Asia-Pacific Economy Cooperation (APEC) Emergency Preparedness Working Group (EPWG) Meeting	17-18 Feb. 2014	China (Ningbo)	APEC	Mr. Natori	Elected as co-chairman of EPWG and reported the activities in 2013 and proposed the work plan of 2014
Expert Group Meeting on Urban Disaster Risk Reduction and Resilience	13-14 March 2014	Japan (Sendai)	UNHABITAT and Tohoku Univertiy	Mr. Natori	ADRC participants (including VRs) discussed with other experts on the issue of urban disaster reduction and resilience
APEC High Level Policy Dialogue on Resilient SMEs for Better Global Supply Chains	24 March 2014	Chinese Taipei (Taichung)	APEC	Mr. Natori	Sharing the achievements of the APEC Multi Year Project "Improving Natural Disaster Resilience of APEC SMEs to Facilitate Trade and Investment", in which the insights from the high level officials from APEC economies
Tri-Lateral Expert Meeting on Disaster Loss Data and DRR Technology Sharing	26-28 March 2014	Rep. of Korea (Jeju)	UNESCAP, Trilateral Cooperation Secretariat, UNISDR, Government of Rep. of Korea	Mr. Natori	Following up activities of Expert Group Meeting Improving Disaster Data to Build Resilience, held at Sendai

Table 7-2-2-2 Academic Conferences and Sympodia

Conference	Date	Venue	Sponsors	Attendee	Contributions
The Forum on Post-Disaster Revival and International Disaster Reduction -Experience and Lessons from 5-Year Wenchuan Post-Disaster Reconstruction and Lushan Earthquake Relief	8-10 May 2013	China (Chengdu)	Sichuan University and Hong Kong Polytechnic University	Mr. Kouchi	Made a keynote speech on how Japanese technology and lessons from disasters have been utilized for building resilience in China
G1 Global Conference	16 Sep. 2013	Japan (Tokyo)	GLOBIS University	Mr. Arakida	Presented on "Africa and Japan: Business and Development Partnership after TICAD V -experience in Kenya-"

Table 7-2-2-3 Articles

Newspaper/Journal	Date	Author	Title
Kindai Shoubou	May 2013	Mr. Natori	Asian Conference on Disaster Reduction 2013
Kindai Shoubou	Sep. 2013	Mr. Kouchi	Activities of International Recovery Platform (IRP) and its response to Great East Japan Earthquake
Kindai Shoubou	Dec. 2013	Ms. Yoshida	ADRC's cooperation with Central Asian countries on disaster risk reduction
Kindai Shoubou	Feb. 2014	Ms. Shiomi	Visiting Researcher Program implemented by ADRC
Kouhou Bousai	March 2014	Mr. Kouchi	Survey of the Typhoon-affected areas in the Philippines
The Japan Tmes	March 2014	Mr. Natori	Reducing shock to businesses after a disaster

ADRC

Higashikan 5F., 1-5-2 Wakinohamakaigan-dori,
Chuo-ku, Kobe 651-0073, JAPAN
Tel:+81(78)262-5540/Fax:+81(78)262-5546
E-mail : rep@adrc.asia
http://www.adrc.asia