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.

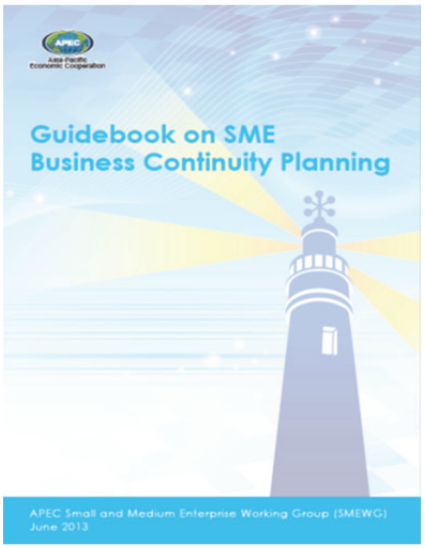

Figure 5-2-2-1 Guidebook (cover)

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;

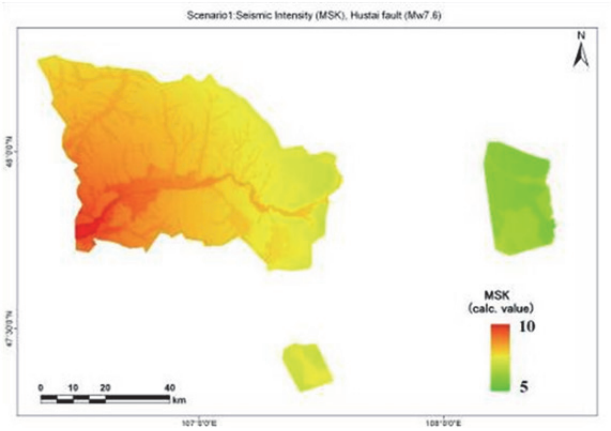

Fig.5-2-3-1 MSK intensity of the Scenario 1

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.