

**OFFICE OF CIVIL DEFENSE (OCD)  
REPUBLIC OF THE PHILIPPINES**

**THE DISASTER RISK REDUCTION  
AND MANAGEMENT CAPACITY  
ENHANCEMENT PROJECT**

**FINAL REPORT**

**MARCH 2015**

**JAPAN INTERNATIONAL COOPERATION AGENCY**

**ORIENTAL CONSULTANTS GLOBAL CO., LTD.**

**CTI ENGINEERING INTERNATIONAL CO., LTD.**

**IRM LTD.**

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<b>JR</b>
<b>15-036</b>

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## Abbreviation

Abbreviation	English / Tagalog
ADB	Asian Development Bank
AusAID	Australian Assistance for International Development
BFP	Bureau of Fire Protection
BDRRMC	Barangay Disaster Risk Reduction and Management Committee
BCP	Business Continuity Plan/ Planning
BLGD	Bureau of Local Government Development
BLGS	Bureau of Local Government Service
CA	Capacity Assessment
CADRE	Community Action for Disaster Response
CALAMIDAT	-
CBDRRM	Community Based Disaster Risk Reduction and Management
CBO	Community Based Organization
CBEWS	Community Based Early Warning System
CCA	Climate Change Adaptation
CCC	Climate Change Commission
CD	Capacity Development
CDA	Civil Defense Administrator
CDETP	Civil Defense Education and Training Program
CDEXO	Civil Defense Executive Officer
CDO	Civil Defense Officer
CDRRMO	City Disaster Risk Reduction and Management Office
CDRRMP	City Disaster Risk Reduction and Management Plan
CDP	Comprehensive Development Plan
CEIS	Communication Electronic Information System
CHED	Commission on Higher Education
CLGOO	City Local Government Operations Officer
CLUP	Comprehensive Land Use Plan
COA	Commission on Audit
CP	Contingency Planning
C/P	Counterpart
CSC	Civil Service Commission
CSI	Civil Service Institute
CSR	Corporate Social Responsibility
CSO	Civil Society Organization
CVRDRRMC	Cagayan Valley Regional Disaster Risk Reduction and Management Council
CVRDRRMP	Cagayan Valley Regional Disaster Risk Reduction and Management Plan
DA	Department of Agriculture
DB	Database
DBM	Department of Budget and Management

Abbreviation	English / Tagalog
DCG	Disaster Control Group
DENR	Department of Environment and Natural Resources
DepEd	Department of Education
DILG	Department of Internal Local Government
DINA	Disaster Information for Nationwide Awareness
DND	Department of National Defense
DOH	Department of Health
DOST	Department of Science and Technology
DPWH	Department of Public Works and Highways
DRRM	Disaster Risk Reduction and Management
DRRMF	Disaster Risk Reduction and Management Fund
DRRMP	Disaster Risk Reduction and Management Plan
DRRM-CEP	Disaster Risk Reduction and Management Capacity Enhancement Project
DRRMO	Disaster Risk Reduction and Management Office
DSWD	Department of Social Welfare Development
EMIS	-
ETD	Education and Training Division
EWS	Early Warning System
GIS	Geographic Information System
GOP	Government of the Philippines
HEI	Higher Education Institutions
HFA	Hyogo Framework for Action
HLURB	Housing and Land Use Regulatory Board
HRD	Human Resource Development
HRMDD	Human Resource Management and Development Division
HVCA	Hazard Vulnerability and Capacity Assessment
ICS	Incident Command System
IMS	Information Management System
INGO	International Non-Governmental Organization
IRR	Implementing Rules and Regulations
ITS	Information Technology Services
JCC	Joint Coordinating Committee
JICA	Japan International Cooperation Agency
JMC	Joint Memorandum Circular
LCE	Local Chief Executive
LDRRMC	Local Disaster Risk Reduction and Management Council
LDRRMF	Local Disaster Risk Reduction and Management Fund
LDRRMFIP	Local Disaster Risk Reduction and Management Fund Implementation Plan
LDRRMP	Local Disaster Risk Reduction and Management Plan
LDRRMO	Local Disaster Risk Reduction and Management Office
LGA	Local Government Academy

Abbreviation	English / Tagalog
LGU	Local Government Unit
LSP	Learning Service Provider
M&E	Monitoring and Evaluation
MDRRMO	Municipal Disaster Risk Reduction and Management Office
MDRRMP	Municipal Disaster Risk Reduction and Management Plan
MGB	Mines and Geosciences Bureau
MLGOO	Municipal Local Government Operations Officer
MLIT	Ministry of Land, Infrastructure and Transport and Tourism
M/M	Minutes of Meeting
MOOE	Maintenance and Other Operating Expenses
MOU	Memorandum of Understanding
NAMRIA	National Mapping and Resource Information Authority
NDCC	National Disaster Coordinating Council
NDPP	National Disaster Preparedness Plan
NDRP	National Disaster Response Plan
NDRRMC	National Disaster Risk Reduction and Management Council
NDRRMETP	National Disaster Risk Reduction and Management Education and Training Program
NDRRMF	National Disaster Risk Reduction and Management Framework
NDRRMP	National Disaster Risk Reduction and Management Plan
NDRRM TI	National Disaster Risk Reduction and Management Training Institute
NEDA	National Economic Development Authority
NFI	Non-Food Item
NGA	National Government Agency
NGO	Non-Governmental Organization
NSRC	National Service Reserve Corps
OCD	Office of Civil Defense
OFW	Overseas Filipino Workers
OPARR	The Office of the Presidential Assistant for Rehabilitation and Recovery
OSSP	Organizational Structure and Staffing Pattern
PAGASA	Philippine Atmospheric, Geophysical and Astronomical Services Administration
PDCA	Plan-Do-Check-Action
PDM	Project Design Matrix
PDNA	Post Disaster Needs Assessment
PDRA	Pre-Disaster Risk Assessment
PDRRMO	Provincial Disaster Risk Reduction and Management Office
PDRRMP	Provincial Disaster Risk Reduction and Management Plan
PDRRMS	Philippines Disaster Risk Reduction and Management System
PEMSD	Project Evaluation and Monitoring System for Disaster Risk Reduction and Management
PHIVOLCS	Philippine Institute of Volcanology and Seismology
PIA	Philippine Information Agency
PO	Plan of Operation

Abbreviation	English / Tagalog
PPA	Project Program Activity
PPDO	Provincial Planning and Development Office
PPP	Public Private Partnership
PSE	Public Sector Employee
PSWDO	Provincial Social Welfare and Development Office
PTTC	Philippine Trade Training Center
RA 10121	Republic Act No. 10121
R/D	Record of Discussion
RDANA	Rapid Damaged Assessment and Needs Analysis
RDRRMO	Regional Disaster Risk Reduction and Management Council
RDRRMP	Regional Disaster Risk Reduction and Management Plan
RDT	Rapid Deployment Team
SAHANA	-
SG	Salary Grade
SIMEx	Simulation Exercise
SLE	Structured Learning Exercises
SNAP	Strategic National Action Plan
SND	Secretary of National Defense
SWOC	Strengths, Weaknesses, Opportunities and Challenges
TBN	To be Named
TFI	Training for Instructor
TI	Training Institute
TNA	Training Needs Assessment
TOT	Training -of –Trainers
TVET	Technical Vocational Education and Training
TMG	Technical Management Group
TWG	Technical Working Group
UNDP	United Nations Development Program
UNHCR	Office of the United Nations High Commissioner for Refugees
UNISDR	United Nations International Strategy for Disaster Reduction
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
UP	University of the Philippines
USAID	United States Agency for International Development
WS	Workshop
WWF	World Wide Fund for Nature

# Chapter 1 Introduction

## 1.1 Background of Work

The Republic of the Philippines (hereinafter “the Philippines”) is one of the most vulnerable countries to various natural disasters in Southeast Asia, including floods, typhoons, landslides, earthquakes, and volcanic eruptions.

The Philippine Government has been shifting its approach to disaster risk management from “Post Disaster Response” to “Proactive Disaster Management,” which is an approach that focuses on mitigation and preparedness, after adoption of the “Hyogo Framework for Action” (hereinafter HFA) by the United Nations World conference on Disaster Risk Reduction in 2005. The Philippine government formulated a “Strategic National Action Plan”: (hereinafter SNAP) for 2009-2019, and has been addressing the enhancement of disaster management as a concrete action based on the HFA.

The “Philippine Disaster Risk Reduction and Management Act of 2010 (RA No. 10121)” (hereinafter DRRM Act) 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 National Disaster Coordinating Council (NDCC), 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). In line with the policies of the DRRM Act, formulation of the National Disaster Risk Reduction and Management Framework (NDRRMF) delineating the direction of Philippine DRRM was formulated in June 2011; and the National Disaster Risk Reduction and Management Plan (NDRRMP) aiming at actual improvement of DRRM by achieving 24 outcomes during 2012–2028 was formulated in February 2012 and launched in October 2012 with joint-agreement among the NDRRMC member agencies (National Government Agencies: NGAs).

As one of the prioritized DRRM activities described in the NDRRMF and the NDRRMP, capacity development of the Local Government Units (LGU) has strongly been emphasized. The establishment of offices for DRRM (DRRMO), the formulation of DRRM Plans (DRRMP) and securing the budget for DRRM (the Local Disaster Risk Reduction and Management Fund (LDRRMF)) at not less than five percent (5%) of the estimated revenue from regular sources have been set up at provincial and municipal/city levels. Implementation of DRRM activities has just started with this new DRRM approach at all levels in the Philippines.

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 Office of Civil Defense (OCD), which has been appointed as the central and leading organization for DRRM activities, is also facing challenges in organizational and human resource capabilities enhancement since the OCD is requiring the implementation and encouragement of broader and more multiple activities including disaster prevention and mitigation along with post-disaster response, which was a major activity of the OCD before the enactment of DRRM act.

Under the above situation, JICA conducted a preparatory survey three times, from February 2010 to November 2011, and considered the project contents by analyzing the actual situations and issues surrounding the OCD. The draft project contents were agreed on with the Philippines side, and the Government of the Philippines requested the project aiming for the capacity enhancement of the OCD to

the Japanese Government. The Record of Discussion (R/D) was signed and exchanged on October 28, 2011.

The Project has been conducted for three years since March 2012 in order to strengthen the capacity of the OCD. These last three years have been worthwhile as a renewal period of the Philippine DRRM being strengthened through several efforts and attainments. The Department of Science and Technology (DOST) in association with the University of the Philippines (UP) has launched a project called the Nationwide Operational Assessment of Hazards (NOAH) with the mission to undertake disaster science research and development, advance the use of cutting-edge technologies and recommend innovative information services in government disaster prevention and mitigation efforts including real-time hydro-met sensor development to inform people of semi real-time accumulated rainfall amounts and river water levels nationwide since June 2012. In addition, RA No. 10639, known as “The Free Mobile Disaster Alerts Act,” was enacted in July 2013 requiring mobile phone service providers to send out alerts at regular intervals at no cost as mandated by the NDRRMC, the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), the Philippine Institute of Volcanology and Seismology (PHIVOLCS) and other relevant agencies in the event of an impending tropical storm, typhoon, tsunami, or other calamities. Regarding the enhancement of DRRM capacity for LGUs, the NDRRMC conducted the National DRRM Summit in January 2013, the Regional DRRM Summits in each region in 2013 and the Provincial DRRM Summits at several selected provinces in 2014 to enhance the capacity of Local Chief Executives (LCEs) on DRRM. The Project also supported OCD to facilitate the discussions in the Regional DRRM Summits.

It is expected that the Government of the Philippines (GOP) expands and promotes the DRRM activities in and out of the Project hereafter in light of the results of Third UN World Conference on Disaster Risk Reduction, although the Project ends in March 2015. Taking into consideration the post-2015 framework for disaster risk reduction, it is strongly requested and essential that the GOP further promotes implementation of prioritized DRRM activities and develops synergy effects based on the results of DRRM activities.

## 1.2 Objective

The objective of this Work is to achieve the Project Purpose by getting the expected outputs described below through a variety of activities with the OCD, the implementing agency in the Philippines, in accordance with the Record of Discussion (R/D) of “The Disaster Risk Reduction and Management Capacity Enhancement Project” (hereinafter “the Project”).

### (1) Overall Goal

DRRM activities conducted by organizations of the Government of the Philippines are improved.

### (2) Project Purpose

Capacity of DRRM of OCD is strengthened.

### (3) Outputs

Output 1: Planning and implementing capacity of OCD on DRRM is strengthened.

Output 2: DRRM activities including information management are standardized.

Output 3: DRRM education and training system and capacity is strengthened.

Output 4: Support system to CBDRRM is strengthened.

**(4) Target Areas**

Philippines

(Metropolitan Manila (Central Government) and pilot areas (two or three regions))

**(5) Implementing Agency**

Office of Civil Defense (OCD)

**(6) Beneficiaries**

Direct Beneficiaries: OCD employees

(Total about 300 staff members: Central office, about 100 staff members;  
Regional office, about 200 staff members; including a contract base of 100  
staff members)

Indirect Beneficiaries: Residents of pilot areas (two or three regions)

Final version of PDM which is agreed with Philippine side is shown on the following page.

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<b>Overall Goal</b> DRRM activities conducted by organizations of the Government of the Philippines (GOP) are improved.	<ul style="list-style-type: none"> <li>• Sunset Review of RA10121 is implemented.</li> <li>• LDRRMPs of all LGUs are upgraded.</li> <li>• Utilization of DRRMFs by other organizations is regularly updated in OCD's M&amp;E system.</li> <li>• DRRM activities on plans, manuals and guidelines prepared through the project are implemented. (*1)</li> <li>• The concepts, systems and programs prepared through the project are operationalized. (*2)</li> </ul>	<ul style="list-style-type: none"> <li>• Report of Sunset Review</li> <li>• Monitoring sheet</li> <li>• Activity reports / Annual Reports of relevant agencies</li> <li>• Disaster Situation Reports</li> <li>• Surveys and interviews with relevant GOP organizations</li> </ul>	
<b>Project Purpose</b> Capacity on DRRM of OCD is strengthened	<ul style="list-style-type: none"> <li>• Plans, manuals and guidelines prepared through the project are authorized.</li> <li>• Concepts, systems and programs prepared through the project are ready for operation.</li> </ul>	<ul style="list-style-type: none"> <li>• Minutes of NDRRMC-TMGs</li> <li>• Reports and documents by OCD</li> <li>• OCD's Annual Report</li> <li>• Surveys and interviews with relevant GOP organizations</li> </ul>	<ul style="list-style-type: none"> <li>• Policy direction of GOP on DRRM continues and NDRRMP is legislated.</li> <li>• Necessary budget for DRRM activities based on NDRRMP are secured.</li> <li>• Relevant GOP organizations conduct appropriate DRRM activities.</li> </ul>
<b>Outputs:</b> 1. Planning and implementing capacity of OCD on DRRM is strengthened	<ul style="list-style-type: none"> <li>• Suggestions for Sunset Review of RA 10121 and improvement of NDRRMP on LGU's DRRM activities based on project experiences are prepared.</li> <li>• RDRRMPs at all Regions (17 Regions) are formulated and approved.</li> <li>• LDRRMPs for pilot LGUs in Region II are formulated and approved.</li> <li>• Monitoring tools/sheet of LDRRMPs and LDRRMOs for LGUs is developed.</li> </ul>	<ul style="list-style-type: none"> <li>• Checklist / Monitoring sheet</li> <li>• Project Progress Report</li> <li>• Documents issued by OCD</li> <li>• Resolution of RDRRMP/ Report from OCD regional office</li> <li>• Resolution of LDRRMP / Report from pilot LGUs</li> </ul>	<ul style="list-style-type: none"> <li>• Organizations and members which acquired skills from the project continue to work for DRRM.</li> </ul>
2. DRRM activities including information management are standardized	<ul style="list-style-type: none"> <li>• NDRPs for Hydro-Meteorological, Earthquake and Tsunami Disasters are approved.</li> <li>• OCD Operation Manual for Response is approved.</li> <li>• IMS (Databases of Responder, Incident and Historical Disaster) at the Central and Regional Offices is approved.</li> <li>• 24 ICT staff are trained for IMS. (CO: 7 and ROs 17)</li> <li>• Drills for NDRP, Operations Manual and IMS are implemented.</li> </ul>	<ul style="list-style-type: none"> <li>• NDRP</li> <li>• Operation Manual for Response</li> <li>• Database and IMS set in OCD-CO</li> <li>• Training Reports</li> </ul>	
3. DRRM education and training system and capacity is strengthened	<ul style="list-style-type: none"> <li>• NDRRMETP is finalized and approved by the OCD top management</li> <li>• Priority training modules for DRRM TIs are finalized and approved by OCD.</li> <li>• Civil Defense Career Education and Training Program are developed and approved by the OCD top management.</li> </ul>	<ul style="list-style-type: none"> <li>• NDRRMETP</li> <li>• Training module</li> <li>• Civil Defense Career Education and Training Program</li> </ul>	
4. Support system to Community Based Disaster Risk Reduction and Management (CBDRRM) is strengthened	<ul style="list-style-type: none"> <li>• CBDRRM National Policy (Concept Paper), Basic Instructor's Guide and Training Course are presented to NDRRMC TMG-Preparedness for finalization and are approved by the Chairperson of NDRRMC.</li> <li>• Action plan to implement and monitor/evaluate CBDRRM activities are prepared for/by the national and regional levels.</li> </ul>	<ul style="list-style-type: none"> <li>• CBDRRM National Policy / Basic Instructor's Guide / Training Module</li> <li>• Action Plan / Monitoring sheet</li> </ul>	
<b>Activities</b> 1-1 Review RA10121 and National Disaster Risk Reduction and Management Plan (NDRRMP) on LGU's DRRM activities 1-2 Formulate selected Regional DRRM Plan (RDRRMP) 1-3 Formulate selected LGU DRRM Plans (LDRRMPs) 1-4 Guide LGUs to monitor development of LDRRMP and establishment of DRRMO 2-1 Identify the relevant organizations and their roles in DRRM activities 2-2 Identify the necessary human resources, equipment and facilities for DRRM activities 2-3 Identify priority areas of standardized guidelines and operation manuals 2-4 Develop National Disaster Response Plan (hereinafter referred to as "NDRP") 2-5 Develop OCD Operation Manual for Response 2-6 Develop information management system (IMS) for DRRM activities 2-7 Conduct drills based on NDRP, operation manual(s) and IMS 2-8 Review and revise NDRP, operation manual(s) and IMS 3-1 Develop National DRRM Education and Training Program (NDRRMETP) 3-2 Identify and formulate priority training modules for DRRM TIs 3-3 Develop Civil Defense Career Education and Training Program for OCD 4-1 Review previously conducted CBDRRM activities 4-2 Develop CBDRRM National Policy to implement CBDRRM activities 4-3 Develop CBDRRM Training Course with module including Basic Instructor's Guide 4-4 Implement and review pilot CBDRRM activities 4-5 Prepare action plan to implement CBDRRM activities nationwide	<b>Inputs</b> <u>Japanese side:</u> <ul style="list-style-type: none"> <li>• Dispatch of experts</li> <li>• Disaster Risk Reduction Management Plan/Team leader</li> <li>• Disaster Risk Reduction Management Operation</li> <li>• Human Resource Development &amp; Planning</li> <li>• Community Based Disaster Risk Management</li> <li>• Information Management System</li> <li>• Disaster Risk Reduction Management Plan2/Project coordinator</li> <li>• Other short-term experts (Development of NDRRMP etc.)</li> <li>• Machinery and equipment necessary for development of information management system</li> <li>• Cost for the implementation of pilot activities</li> <li>• Counterpart trainings in Japan</li> </ul> <u>Philippine side:</u> <ul style="list-style-type: none"> <li>• Counterpart personnel</li> <li>• Office space and other facilities necessary for project activities</li> <li>• Necessary operational expenses for the project activates</li> </ul>	<ul style="list-style-type: none"> <li>• Relevant GOP organizations cooperate to the project activities.</li> <li>• Communities in the pilot areas accept the project</li> </ul> <u>Pre-conditions</u> <ul style="list-style-type: none"> <li>• Counterpart personnel from OCD permanent staffs/officials is assigned</li> </ul>	

\*1: - Response activities are conducted according to NDRP and operation manual.  
 - CBDRRM activities at community level are conducted by utilizing instructor's guideline other than pilot area.

\*2: - DRRM activities implemented by LGUs are monitored, evaluated and supported.  
 - IMS is utilized for DRRM activities according to operation manual.  
 - Training programs are implemented by DRRM TIs and/or other agencies in accordance with NDRRMETP.  
 - Training programs are implemented with OCD Budget in accordance with the Civil Defense Career Education and Training Program.  
 - Tangible Outcomes (e.g. Joint CBDRRM Programs and Implementation by OCD and DILG, CBDRRM Programs by LGUs in accordance with concept/action plan)



## Chapter 2 Activity Report

### 2.1 Work Items

This project was implemented based on the following work items. The relations between the work items and activities defined in the PDM were shown in the table below. And the work flowchart is also shown below.

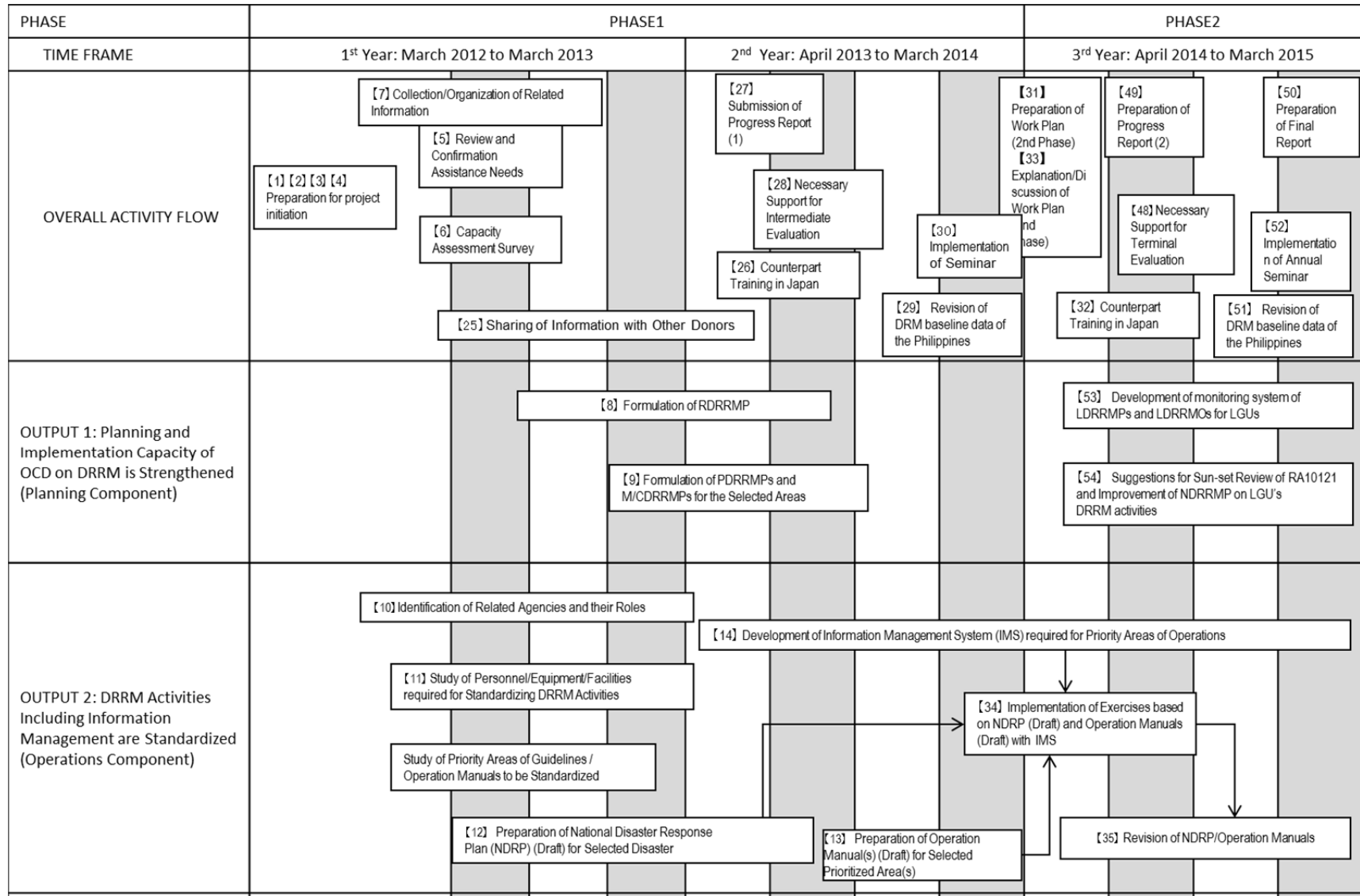
Table 2.1.1 List of Work Items and Activities on PDM

Work Item	Activity of PDM
<b>[1<sup>st</sup> Phase: March, 2012 – March, 2014]</b>	
<b>Overall Activities</b>	
[1] Preparation of Work Plan (1 <sup>st</sup> Phase, Inception Report)	-
[2] Explanation of Work Plan (1st Phase, Inception Report) to JICA	-
[3] Preparations for Procurement of Required Equipment	-
[4] Explanation and Discussion of Work Plan (1st Phase) to C/P	-
[5] Review and Confirm Assistance Needs	-
[6] Capacity Assessment Survey	-
[7] Collection/Organization of Related Information	-
<b>OUTPUT 1: Planning and Implementation Capacity of OCD on DRRM is Strengthened (Planning Component)</b>	
[8] Formulation of RDRRMP	1-2 Formulate selected Regional DRRM Plan (RDRRMP)
[9] Formulation of PDRRMPs and M/CDRRMPs for the Selected Areas	1-3 Formulate selected LGU DRRM Plans (LDRRMPs)
<b>OUTPUT 2: DRRM Activities Including Information Management are Standardized (Operations Component)</b>	
[10] Identification of Related Agencies and their Roles	2-1 Identify the relevant organizations and their roles in DRRM activities
[11] Study of Personnel/Equipment/Facilities required for Standardizing DRRM Activities	2-2 Identify the necessary human resources, equipment and facilities for DRRM activities
[12] Preparation of National Disaster Response Plan (NDRP) (Draft) for Selected Disaster	2-3 Identify priority areas of standardized guidelines and operation manuals 2-4 Develop National Disaster Response Plan (hereinafter referred to as “NDRP”)
[13] Preparation of Operation Manual(s) (Draft) for Selected Prioritized Area(s)	2-3 Identify priority areas of standardized guidelines and operation manuals 2-5 Develop OCD Operation Manual for Response
[14] Development of Information Management System (IMS) required for Priority Areas of Operations	2-3 Identify priority areas of standardized guidelines and operation manuals 2-6 Develop information management system (IMS) for DRRM activities
<b>OUTPUT 3: Human Resources Development Plan for DRRM is Developed (Human Resources Development (HRD) Component)</b>	
[15] Prepare Draft National Level Concept of Human Resource Development (HRD) on DRRM	3-1 Develop National DRRM Education and Training Program (NDRRMETP)
[16] Prepare Draft Operation Plan for DRRM TI	3-2 Identify and formulate priority training modules for DRRM TIs
[17] Improve Technical Capacity Development Plan for OCD	3-3 Develop Civil Defense Career Education and Training Program for OCD
[18] Implementation and Review of Priority Programs / Training Courses for DRRM TI	3-2 Identify and formulate priority training modules for DRRM TIs
[19] Implementation and Review of Priority Programs / Training Courses for Technical Capacity Development for OCD	3-3 Develop Civil Defense Career Education and Training Program for OCD

Work Item	Activity of PDM
<b>OUTPUT 4: Support system for Community Based Disaster Risk Reduction and Management (CBDRRM) (CBDRRM Component)</b>	
[20] Prepare Draft Guidelines for Implementation of CBDRRM Activities	4-1 Review previously conducted CBDRRM activities 4-3 Develop CBDRRM Training Course with module including Basic Instructor's Guide
[21] Prepare CBDRRM Requirements that should be written in C/MDRRMP	4-2 Develop CBDRRM National Policy to implement CBDRRM activities
[22] Prepare CBDRRM Training Course as a part of TI Program	4-3 Develop CBDRRM Training Course with module including Basic Instructor's Guide
[23] Study on Existing System, Budget, Training Program, any Other Activities	4-2 Develop CBDRRM National Policy to implement CBDRRM activities
[24] Study on the Mechanism for Utilization of Existing System (policy/technical support) and Budget	4-5 Prepare action plan to implement CBDRRM activities nationwide
<b>Overall Activities</b>	
[25] Sharing of Information with Other Donors	-
[26] Counterpart Training in Japan	-
[27] Submission of Progress Report (1)	-
[28] Necessary Support for Intermediate Evaluation	-
[29] Revision of DRM baseline data of the Philippines	-
[30] Implementation of Seminar	-
<b>[2<sup>nd</sup> Phase: April, 2014 – March, 2015]</b>	
<b>Overall Activities</b>	
[31] Preparation of Work Plan (2 <sup>nd</sup> Phase)	-
[32] Counterpart Training in Japan	-
[33] Explanation/Discussion of Work Plan (2 <sup>nd</sup> Phase)	-
<b>OUTPUT 2: DRRM Activities Including Information Management are Standardized (Operations Component)</b>	
[34] Implementation of Exercises based on NDRP (Draft) and Operation Manuals (Draft) with IMS	2-7 Conduct drills based on NDRP, operation manual(s) and IMS
[35] Revision of NDRP/Operation Manuals	2-8 Review and revise NDRP, operation manual(s) and IMS
<b>OUTPUT 3: Human Resources Development Plan for DRRM is Developed (Human Resources Development (HRD) Component)</b>	
[36] Implementation and Review of Priority Programs / Training Courses for DRRM TI (Continued)	3-2 Identify and formulate priority training modules for DRRM TIs
[37] Implementation and Review of Priority Programs / Training Courses for Civil Defense Career Education and Training Program	3-3 Develop Civil Defense Career Education and Training Program for OCD
[38] Finalizing of Priority Training Modules for DRRM TIs	3-2 Identify and formulate priority training modules for DRRM TIs
[39] Revision of Civil Defense Career Education and Training Program for OCD	3-3 Develop Civil Defense Career Education and Training Program for OCD
[40] Revision of National DRRM Education and Training Program	3-1 Develop National DRRM Education and Training Program (NDRRMETP)
<b>OUTPUT 4: Support system for Community Based Disaster Risk Reduction and Management (CBDRRM) (CBDRRM Component)</b>	
[41] Implementation of CBDRRM Training Course as a part of TI Program: Pilot Testing and Feedback	4-3 Develop CBDRRM Training Course with module including Basic Instructor's Guide
[42] Finalize CBDRRM Guidelines	4-4 Implement and review pilot CBDRRM activities
[43] Finalize CBDRRM Training Course in DRRM TI	
[44] Study on Existing System, Budget, Training Program, any Other Activities (continued)	4-2 Develop CBDRRM National Policy to implement CBDRRM activities
[45] Study on the Mechanism for Utilization of Existing System (policy/technical support) and Budget (continued)	4-5 Prepare action plan to implement CBDRRM activities nationwide
[46] Prepare Action Plans to Implement CBDRRM Activities Nationwide	
[47] Consolidation/Reflection into IMS Database	

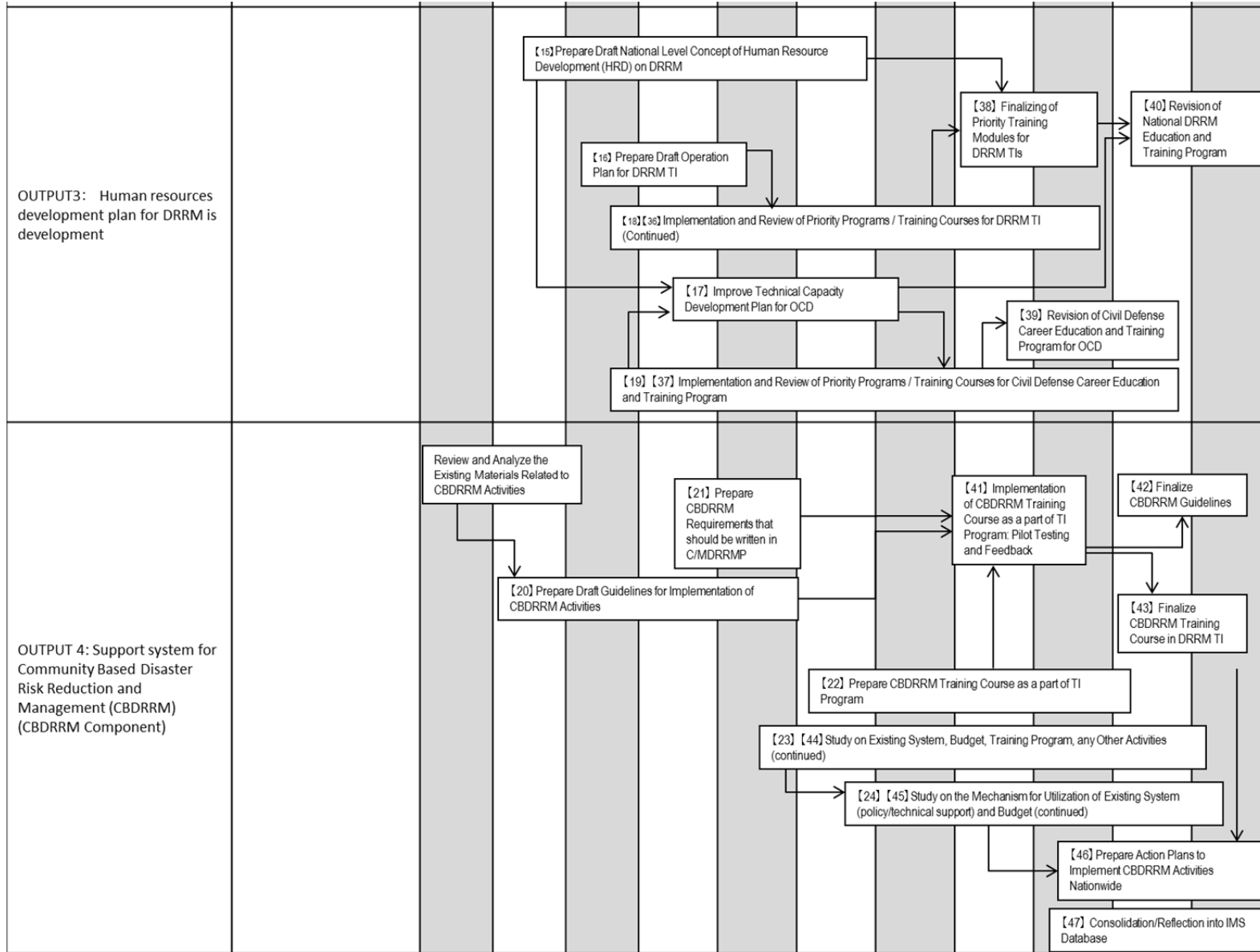
Work Item	Activity of PDM
<b>Overall Activities</b>	
[48] Necessary Support for Terminal Evaluation	-
[49] Preparation of Progress Report (2)	-
[50] Preparation of Final Report	-
[51] Revision of DRM baseline data of the Philippines	-
[52] Implementation of Annual Seminar	-
<b>OUTPUT 1: Planning and Implementation Capacity of OCD on DRRM is Strengthened (Planning Component)</b>	
[53] Development of monitoring system of LDRRMPs and LDRRMOs for LGUs	1-4 Guide LGUs to monitor development of LDRRMP and establishment of DRRMO
[54] Suggestions for Sun-set Review of RA10121 and Improvement of NDRRMP on LGU's DRRM activities	1-1 Review RA10121 and National Disaster Risk Reduction and Management Plan (NDRRMP) on LGU's DRRM activities

Source: Expert Team



Source: Expert Team

Figure 2.1.1 Work Flowchart (1/2)



Source: Expert Team

Figure 2.1.1 Work Flowchart (2/2)

## 2.2 Common Activities

### 1st Phase

#### [1] Preparation of Work Plan (1st Phase, Inception Report)

Based on information collected in Japan, including basic policy, detailed methodology, implementation structure, schedule, etc., the implementation of the project is described as the Work Plan (1<sup>st</sup> Phase).

#### [2] Explanation of Work Plan (1st Phase, Inception Report) to JICA

The Work Plan (1<sup>st</sup> Phase) was explained to JICA and it was approved.

#### [3] Preparations for Procurement of Required Equipment

Details of required equipment for the project were discussed in order to start preparing the procurement of said equipment. Regarding the equipment for the information management system, the necessary discussion has been stated in activity [14] of Output 2.

#### [4] Explanation and Discussion of Work Plan (1st Phase) to C/P

The Work Plan (1st Phase) was submitted and explained to the Philippine side. First, discussions were held with OCD in order to share the idea of the Project and to obtain the agreement of the OCD. The Joint Coordination Committee (JCC) meeting was held after reaching an agreement with OCD, and the agreement of the JCC member agencies was also obtained.

#### [5] Review and Confirm Assistance Needs

The needs of support were reconfirmed based on the latest situation around the project. Each activity was modified and the PDM was revised. The revised PDM was approved by JCC.

#### [6] Capacity Assessment Survey

A capacity assessment (CA) survey was conducted for grasping the DRRM related capabilities of the OCD and agencies related to the Project. The following is the outline of the CA:

Table 2.2.1 Outline of Capacity Assessment

Items	Outline
Objectives	1) Identify the existing organization systems, resources, and work items performed by the OCD and the related organizations and agencies on DRRM; 2) Identify existing roles and demarcations, coordinating the system for DRRM by OCD and the related organizations and agencies; and, 3) Identify current capacity levels by comparing required capacities for DRRM.
Period of the survey	August – November 2012
Target organizations	The Office of Civil Defense (both at the Headquarters and regional offices); NEDA, DILG, DSWD, DOST, DOH, DPWH and DepEd; Four selected provincial offices; Two selected local government units in each selected province; and, AusAID, UNDP, UN-OCHA, and USAID.
Method of Survey	Questionnaire survey, free discussions, key informant interviews, review of secondary documents (reported by other projects)

Source: Expert Team

The survey result was organized as follows:

Table 2.2.2 Result of Capacity Assessment

Items	Result
Findings on the OCD	<ul style="list-style-type: none"> <li>• The absence of a concrete human resource capacity development plan to meet the demands of RA 10121; also, the number of current employees is insufficient to carry out its DRRM tasks;</li> <li>• The lack of standard tools on database management/data banking and training modules, including the template DRRM plan;</li> <li>• There is a quick turnover of leaders in the OCD that greatly affects the long-term goals/direction of the organization;</li> <li>• The lack of clear demarcation of functions between the NDRRMC Operations Center and the Operations Division;</li> <li>• The need for immediate upgrading of the communication and physical facilities;</li> <li>• The lack of regular staff and regular council meetings, leading to difficulties in addressing disagreements or office/council-level concerns;</li> <li>• Employees multitask as a result of few permanent staff members; most are either contract workers or job orders. Consequently, specialized skills and expertise were not developed within the organization;</li> <li>• The absence of institutional performance appraisal for employees; and</li> <li>• The lack of standard selection criteria in terms of participation in local and international trainings/seminars.</li> </ul>
Findings on DRRMO	<ul style="list-style-type: none"> <li>• The lack of clear understanding on RA 10121. DRRMOs are heavily investing in emergency response initiatives;</li> <li>• The unavailability of permanent employee positions for DRRM officers. DRRM officers are either contract employees, job orders, or special detail from other offices;</li> <li>• The absence of a comprehensive and genuine DRRM Plan;</li> <li>• The lack of a comprehensive human resource development plan for DRRMO employees;</li> <li>• The existence of very minimal if not few DRRM-related projects at the community level;</li> <li>• A limited DRRM budget allocation; and</li> <li>• DRRMO heads and staff members are coterminous with the incumbent local chief executive. The fast turnover of leaders results in a lack of continuity of DRRM efforts.</li> </ul>
Recommendations	<ul style="list-style-type: none"> <li>• To strengthen linkages between and among stakeholders involved in DRRM and to make a clear-cut definition of roles and functions among relevant agencies, especially with vice chair agencies of NDRRMC;</li> <li>• To ensure a comprehensive, continuous, and sustainable capacity enhancement for the employees involved in DRRM to be able to effectively perform their mandate;</li> <li>• Institutionalization of DRRMOs and a corresponding plan;</li> <li>• Development of a standard database system for knowledge management;</li> <li>• Capitalizing on community-based disaster risk reduction and management (CBDRRM) and promoting the participation of community residents to the DRRM activities; and</li> <li>• Reviving the radio communication system as a reliable form of communication.</li> </ul>

Source: Report by sub-contractor

#### [7] Collection/Organization of Related Information

Information related to the activities was collected and organized.

#### [25] Sharing of Information with Other Donors

OCD has been implementing many projects with several donor agencies. The project team communicated well with the other donors, and collected and exchanged the information with them. The team tried to avoid overlapping with other donors' activities.

The major projects related to this project are summarized in the table below;

Table 2.2.3 Principal Related Project

Project Name	Donor
Project Monitoring and Evaluation System for Disaster Risk Reduction and Management (PMESD)	World Bank
The Project on “Strengthening Coordination to Support the Delivery of Humanitarian Assistance to the Most Vulnerable People in the Philippines 2013 – 2016”	UNOCHA, AusAID
Capacity Development for Managing Disaster Risk from Natural Hazards and Climate Change in the Philippines	UNDP
*Installation of specialized software for emergency response (*this is not a project but a donation)	IBM

Source: Expert Team

## [26] Counterpart Training in Japan

The outline of the 1<sup>st</sup> Counterpart training in Japan is shown below.

Table 2.2.4 Outline of 1<sup>st</sup> Counterpart training in Japan

Items	Outline
Course Name	Disaster Management Administration
Schedule	June 23 <sup>rd</sup> to 29 <sup>th</sup> , 2013
Goal	Understand the issues and the necessary activities for the enhancement of the DRRM system in the Philippines.
Objectives	1) To understand the importance of cooperation among the national government, local government, and residents 2) To understand various strategies for Training and Education on DRRM in Japan
Participant	4 persons (management level officers of OCD (two officers were newly assigned))
Visiting Organizations	Nojima Fault Preservation Museum (Hanshin-Awaji Eq. Memorial Museum) Disaster Reduction and Human Renovation Center Hyogo Prefecture Emergency Management and Training Center (in Miki Comprehensive Emergency Management Park) Rokko Sabo Office, Kinki Regional Development Office, MLIT (Ministry of Land, Infrastructure, and Transport) Ishinomaki City Guided Tour Minami-Sanriku Guided Tour Tohoku Regional Development Office, MLIT (Ministry of Land, Infrastructure, and Transport) Cabinet Office facility in Ariake MLIT HQs

Source: Expert Team

Four focal persons from OCD were sent to Japan for the first counterpart training in Japan, because the focal persons of the OCD were replaced at the end of the 1<sup>st</sup> year activity. Following is the major feedback from the participants:

- ◆ The fact that Japan is putting in practice DRRM based on lessons learned through disaster experiences. The participants were able to hear many stories about the lessons Japanese learned from the Great Hanshin Awaji Earthquake and the Great East Japan Earthquake, repeatedly.
- ◆ The cooperation among different government levels for DRRM activities as well as how each government is working hard individually to implement their DRRM activities.
- ◆ The effort that Japan is putting forth to refrain from forgetting the experience of past disasters was seen at some of the facilities that were preserved with damage from the disaster.



- ◆ The importance of DRRM education was realized from the educational facilities as well as training programs.



Source: Expert Team

Photo 2.2.1 1<sup>st</sup> Counterpart Training in Japan

#### [27] Submission of Progress Report (1)

Progress Report 1 compiling the result of activities was prepared and submitted to JICA in September 2013.

#### [28] Necessary Support for Intermediate Evaluation

Intermediate Evaluation (Mid-term Review) was conducted in October 2013. JICA Expert Team submitted necessary data and information to the Review Team. And the team cooperated with an interview survey.

#### [29] Revision of DRM baseline data of the Philippines

Based on the collected information and existing documents, JICA disaster management ledger (Japanese by country and English version) was revised and submitted.

#### [30] Implementation of Seminar

An “Annual Seminar on DRRM CEP 2014: Holistic DRRM Activity based on Lessons Learned from Recent Disasters” was held on February 11, 2014, at Discovery Suites Hotel, Ortigas, to share the progress and the plan of DRRM-CEP as well as to have an opportunity for all DRRM-related departments and agencies to share their experiences during recent disasters.

About 80 officers in charge for the DRRM participated in the seminar from NDRRMC member agencies, UN agencies, and ADB etc. Assistant Secretary and Director level officers participated in

the panel discussion from the four government agencies such as DOST (Department of Science and Technology), DILG (Department of the Interior and Local Government), DPWH (Department of Public Works and Highways), and OCD.

The major programs of the seminar were:

- ♦ Presentation: Lessons Learned from Recent Disasters (DOST/DILG/DSWD), Lessons Learned from The Great East Japan Earthquake (JICA Expert for OCD), and Efforts by DRRM-CEP (OCD)
- ♦ Wall Work Activity: Good practices and challenges, What should be done?
- ♦ Panel Discussion: For different government agencies (DOST/DILG/DPWH/OCD) and JICA to impart their experiences and lessons learned during the recent disasters that hit the country, such as recent Super Typhoon Yolanda.

The goal of the seminar was to highlight the importance of a holistic DRRM approach. One of the important aspects of this approach is for all stakeholders, from the national government to the local residents, to know their own responsibilities in DRRM and implement necessary activities. Another important aspect is the implementation of DRRM activities in the four thematic areas, Mitigation/Prevention, Preparedness, Response, and Recovery/Reconstruction, which need to be implemented according to the DRRM Plan. The presentations, Wall Work, and panel discussion featured this holistic DRRM approach.

As a result of this seminar, all the participants re-established the common recognition of a holistic approach towards DRRM in the Philippines. It is also interesting to note that many participants stated the significant role of community-based DRRM as the future expectation for this approach.



Source: Expert Team

Photo 2.2.2 Annual seminar

## 2<sup>nd</sup> Phase

### [31] Preparation of Work Plan (2nd Phase)

Work Plan (2<sup>nd</sup> Phase) regards the basic policy of 2<sup>nd</sup> phase activities, and a concrete metrology of implementation was prepared. It was explained to JICA and agreed.

### [32] Counterpart Training in Japan

The outline of the 2<sup>nd</sup> Counterpart training in Japan is shown below.

Table 2.2.5 Outline of 2<sup>nd</sup> Counterpart training in Japan

Items	Outline
Course Name	DRRM Capacity Enhancement for All Stakeholders
Schedule	May 18-31, 2014
Objectives	1) Understand roles of national and local governments in DRRM in Japan (Component 1) 2) Understand DRRM operation and information management in Japan (Component 2) 3) Understand Japanese approaches for DRRM education and training (Component 3) 4) Understand roles of communities in DRRM and public awareness for DRRM in Japan (Component 4) 5) Examine how to address enhancing the DRRM capacity in the Philippines, based on acquired knowledge in this training
Participants	15 persons (major counterpart members for each output)
Visiting Organization	MLIT HQ, Cabinet Office DM Center, Kamaishi City, Miyako City, Disaster Management Drill, Disaster Reduction and Human Renovation Institution, Hyogo Prefecture, Kobe City, Rokko Sabo Office, JMA Osaka Regional HQ, etc.

Source: Expert Team

Fifteen major counterparts from each component were invited to the 2nd Counterpart Training in Japan. Since they were the members related to the project directly, they prepared action plans for each component incorporating the knowledge learned in Japan. Their action plan is attached as Annex B5.

### [33] Explanation/Discussion of Work Plan (2nd Phase)

The kick-off meeting for the 3<sup>rd</sup> year of the project was held on June 9, 2014 to discuss the 2<sup>nd</sup> Phase Work Plan with the Philippine side. The plan was presented and agreed on in the meeting.

The 2<sup>nd</sup> phase work plan was explained to the relevant organizations in Philippine side and it was agreed on.

### [48] Necessary Support for Terminal Evaluation

A Terminal Evaluation was conducted during September and October 2014. The JICA Expert Team submitted the necessary data and information to the Review Team, and the team cooperated with an interview survey.

### [49] Preparation of Progress Report (2)

Progress Report 2 compiled the results of activities and was prepared and submitted to JICA in September 2013.

#### [50] Preparation of Final Report

The whole project status was compiled as a Final Report. The contents of this report were explained and discussed in JCC and it was submitted to JICA with agreement of each Counterpart agency in February 2015.

#### [51] Revision of DRM baseline data of the Philippines

The JICA DRM baseline data of the Philippines, which was prepared during activity [29], was revised and submitted to JICA. It is attached in Annex B8.

#### [52] Implementation of Annual Seminar

The Final Seminar was held on February 10, 2015. The objectives of this seminar were to share the project outputs among the relevant agencies of DRRM, and to discuss the challenges and the recommendations for the DRRM activities in the Philippines.

About 110 officers in charge for the DRRM participated in the seminar from NDRRMC member agencies, UN agencies, and World Bank etc. Assistant Secretary and Director level officers participated in the panel discussion from the four vice chair agencies of NDRRMC such as DOST, DSWD, DILG and NEDA in addition to OCD and JICA.

The major programs of the final seminar are shown below.

- ◆ Presentation: Efforts for the DRRM in the Philippines after the enactment of RA10121, lessons learned from recent disasters, and the way forward by OCD, the introduction of Japanese efforts on DRRM and suggestions for OCD by a JICA long-term Expert, the project outputs by OCD, and the challenges and recommendations for the DRRM activities in the Philippines by JICA Expert Team
- ◆ Panel Discussion: OCD and four vice chair agencies such as DOST, DILG, DSWD and NEDA, and JICA discussed project outputs, and challenges and recommendations on the DRRM in the Philippines

One of objectives of the final seminar was that the major relevant agencies could share the challenges on the DRRM in the Philippines and could recognize their own roles and would implement the necessary activities based on their confirmed roles. It could be said that the participants in the seminar could have common understanding on the challenges and the ways forward for the DRRM in the Philippines.



*Source: Expert Team*

Photo 2.2.3 Final Seminar

## 2.3 Output 1: Planning Component

### 2.3.1 Outline

#### (1) PDM output and activities

##### 1) Output

1. Planning and implementing capacity of OCD on DRRM is strengthened.

##### 2) Activity

1-1 Review RA10141 and National Disaster Risk Reduction and Management Plan (NDRRMP) on LGUs DRRM activities

1-2 Formulate selected Regional DRRM Plan (RDRRMP)

1-3 Formulate selected LGU DRRM Plans (LDRRMPs)

1-4 Guide LGUs to monitor development for LDRRMPs and establishment of LDRRMOs

#### (2) Major Products

##### 1) Formulation of the Cagayan Valley RDRRMP (Region 2)

The National Disaster Risk Reduction and Management Plan (NDRRMP) was adopted in February 2012. To move on the next step, the formulation of the 17 Regional DRRM Plans (RDRRMPs), which reflect the national policy and regional ecological and socio-economic aspects, was promoted.

The Planning Component supported Region 2 (Region of Cagayan Valley) in formulating its RDRRMP. The Cagayan Valley Regional DRRM Plan (CVRDRRMP) is a six-year plan (2013–2019) in which the DRRM goal, objectives, Project Plan and Activities (PPAs) are identified.

##### 2) Formulation of 4 LDRRMPs for the Selected Areas

Local Chief Executives were requested to submit Local DRRM Plans by October 1 according to Memorandum Series No. 169 issued by OCD in March 2013.

The Planning Component supported the formulation of two Provincial DRRM Plans (PDRRMPs), one City DRRM Plan (CDRRMP) and one Municipality DRRM Plan (MDRRMP). Three plans out of the four were approved by the Sangguniang and some DRRM activities identified in the LDRRMPs have already been implemented.

##### 3) Development of monitoring system for Local DRRM Plans (LDRRMP) and Local DRRM Offices (LDRRMO)

The Planning Component developed a Monitoring and Evaluation (M&E) System/Review System to investigate the status of LDRRMPs formulation and Local DRRM Offices (LDRRMOs) establishment and consider how OCD can support LGUs.

National agencies such as the Department of the Interior and Local Government (DILG) and LGUs such as the Provinces of Cagayan and Isabela were consulted to propose realistic processes and indicators. A database was developed to accumulate the review results and analyze the LGUs' needs.

#### **4) Suggestions for Sunset Review of RA10121 and improvement of NDRRMP on LGUs' DRRM activities**

The Planning Component provided some ideas for the Sunset Review of the Republic Act 10121 based on the activities conducted during the Project period. The suggestions focused on how OCD headquarter and regional offices can support LGUs.

#### **(3) Result of Technical Transfer**

“Planning and Implementing Capacity of OCD on DRRM is strengthened” is the goal of the Planning Component by supporting the central and regional offices of the OCD and four LGUs.

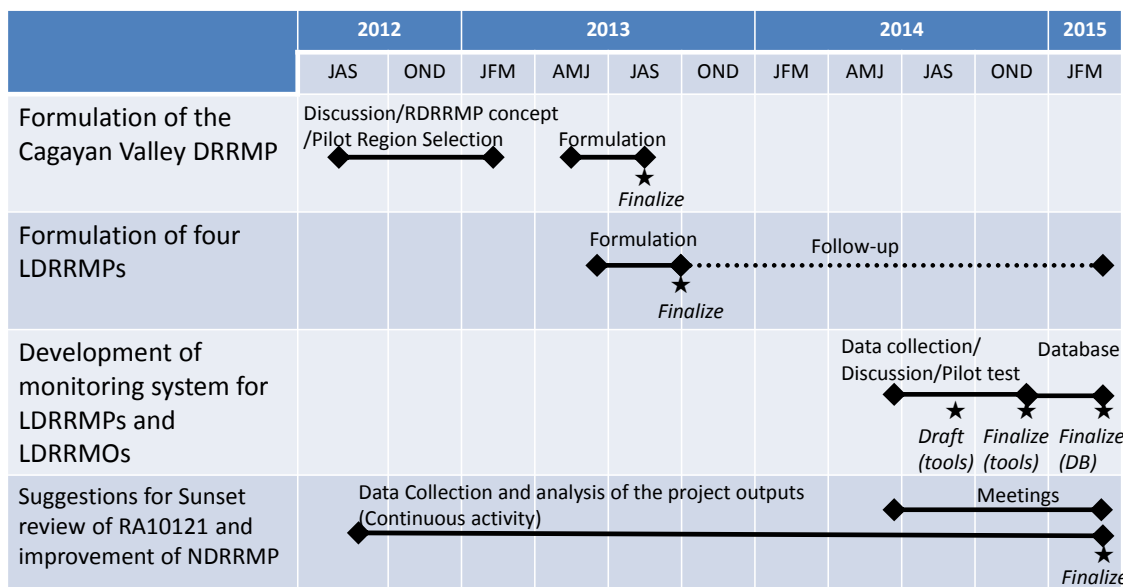
The national OCD provided assistance to regional offices, and the regional offices supported LGUs in formulating DRRM Plans during the Project. Thus, the importance of the technical assistance provided by higher governmental agencies was re-recognized. It can be said that the planning capacity, facilitation and coaching skills of the officers from OCD central and regional offices, Cagayan PDRRMO and Isabela PDRRMO were strengthened through the project.

The Planning Component supported the formulation of the Cagayan Valley RDRRMP, Cagayan PDRRMP, Isabela PDRRMP, Ilagan CDRRMP and Alcala MDRRMP. During the RDRRMP formulation workshops, officers from OCD central office provided lectures on the National DRRM policy and framework and during the LDRRMP formulation workshops, officers from OCD Region 2 guided LGUs on the higher policy, framework, disaster profile, etc. Based on this experience, OCD-R2 supported the formulation of the Appari MDRRMP by following the same process as the Project. On the other hand, the provinces of Cagayan and Isabela recognized that they have to support cities and municipalities to enhance the formulation of comprehensive C/MDRRMPs and take leadership for conducting LDRRMP orientation workshops.

Counterparts from OCD central and regional offices actively participated during the considerations on measures to enhance the formulation of comprehensive LDRRMPs and develop a realistic review system involving other agencies. The review tools and processes will be shared with all the OCD regional offices during the next Senior Leaders' Conference as well as submitted to the NDRRMC for approval. A nationwide investigation using the review system developed by the Planning Component is to be conducted after the approval. The analysis of this review is expected to guide the national and regional offices on how to provide more efficient technical support to LGUs. The planning and implementing capacity at the LGU level will also be strengthened as a result of the activities conducted during the Project.

Although some outputs are awaiting NDRRMC approval, it can be recognized that the “Planning and Implementation Capacity on DRRM” was enhanced and that the technology transfer was done adequately at central, regional, and local levels.

**(4) Schedule**



*Prepared by the experts*

Figure 2.3.1 Schedule of Planning Component

**2.3.2 Activity Report**

**(1) Formulation of Cagayan Valley RDRRMP (Region2)**

**[8] Formulation of RDRRMP**

**1) Pilot region selection**

The National Disaster Risk Reduction and Management Plan (NDRRMP) was approved by the NDRRMC in February 2012. To promote the formulation of DRRM Plans at the regional level, the planning Component considered a Regional DRRM Plan template during the first year of the project implementation period.


The Planning Component selected one Region to support the RDRRMP formulation and to check the validity of the draft template. Based on the analysis of data and reports on the risk profile and the presence of structural and non-structural countermeasures in each region, Region 2 (Cagayan Valley Region) was selected.

**2) Process followed to formulate the CVRDRRMP**

OCD issued the memorandum series No.169 to enhance the formulation of RDRRMPs and LDRRMPs, in March 2013. This memorandum series requested all OCD Regional directors “finalize and implement Regional DRRM Plan not later than June 30, 2013.”

To formulate the Cagayan Valley - RDRRMP (CVDRRMP) in such a short time, the establishment of a good partnership between OCD Regional Office-Region 2 (OCD-R2) and the Planning Component was an essential condition. As a result of close coordination, the CVRDRRMP was formulated within 4 months.



2013	March	April	May	June	
CVRDRRMP Formulation	Data gathering, consultation		Draft	Revision	 RDRRMC coordination
	★ Meeting (6)	★ WS1 (17-18)	★ WS2 (15-16)	★ WS3 (13-14)	
					RDRRMC Approval (8/23)

*Prepared by the experts*

Figure 2.3.2 Schedule of the formulation of the CVRDRRMP

More than forty organizations including the members of the Cagayan Valley Regional Disaster Risk Reduction and Management Council (CVRDRRMC), technical agencies responsible to provide disaster risk assessment analysis results (such as the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) and Mines and Geosciences Bureau (MGB)), organizations in charge of rescue and relief (such as Department of Health (DOH and Red Cross)), and the five provinces of Region 2 participated during the three workshops conducted to formulate and consolidate the CVRDRRMP.

The regional socio-economic aspects and risk profile were shared during the first workshop (WS1) in order to establish a common knowledge and to identify Strengths, Weaknesses, Opportunities, and Challenges (SWOC). Based on the WS1 outputs, medium- and long-term vision, goals, and Projects Programs and Activities (PPAs) to implement, responsible agencies and timelines were considered during the second workshop (WS2). A draft of the RDRRMP was prepared after the WS2 and presented during the third workshop (WS3) for validation and finalization. After WS3, some minor revisions were made and the CVDRRMP was submitted to OCD-R2. OCD-R2 presented the plan during the RDRRM Council (RDRRMC) meeting. The RDRRMP was finally approved by the RDRRMC on August 23, 2013.



*Photos taken by the experts*

Figure 2.3.3 Approved RDRRMP and Formulation Workshop

### 3) Input from Japanese Experts

Japanese experts explained the challenges and lessons learned during the Great East Japan Earthquake in 2011 and the Niigata-Fukushima floods in 2004. Since the larger basin of the Philippines, the Cagayan River Basin, lies in Region 2, the Japanese concept of “integrated river basin management” was also introduced.

The following table shows the topics reflected in the RDRRMP.

Table 2.3.1 Reflection of the Japanese experiences in the CVRDRRMP

Topics	Connection to the CVRDRRMP
Ensure the dissemination of disaster information	One activity already said, “1.1 Develop and institutionalize EWS information sharing and communications systems between LGUs, communities and national government” of Outcome 6 “End-to end monitoring, forecasting and early warning systems are established and/or improved”
Set clear criteria for alert of evacuation	as Addition: “1.2 Development of a clear criteria and/or accreditation standard for CBEWS” of Outcome 6 “End-to end monitoring, forecasting and early warning systems are established and/or improved.”
Strengthen the partnership between LGUs	as Addition: “4.1 Promote intra- and inter-regional partnership” of Outcome 2 “DRRM- and CCA-sensitive environmental management.”
Enhance coordination to solve the problems in the basin	as Addition: “5.1 Propose DRRM activities relative to the Cagayan River Basin to appropriate agencies/bodies” of Outcome 2 “DRRM- and CCA-sensitive environmental management.”

*Prepared by the experts*

## (2) Formulation of 4 LDRRMPs for the Selected Areas

### [9] Formulation of PDRRMPs and M/CDRRMPs for the selected areas

#### 1) Formulation of LDRRMPs

##### (a) Definition of Local DRRM Plan

As defined in section 12.c (7) of the Republic Act 10121 (RA10121) and the Joint Memorandum Circular 2013-01 “Allocation and utilization of the Local Disaster Risk Reduction and Management Fund (LDRRMF),” the Local DRRM Offices (LDRRMOs) shall “formulate and implement a comprehensive and integrated LDRRMP in accordance with the national, regional and provincial framework, and policies on disaster risk reduction in close coordination with the local development councils (LDCs)” and “the LDRRMP shall be the basis in the allocation of LDRRMF.”

To enhance the formulation of “comprehensive” plans in which the mid- and long-term vision and strategies on DRRM of the Local Government Units (LGU) are defined, a standard LDRRMP template was presented and adopted during the National DRRM Summit held in March 2013, and Local Chief Executives were requested to submit Local DRRM Plans by October 1 according to Memorandum Series No.169.

##### (b) Selection of four pilot LGUs

The Planning Component selected two provinces, one city, and one municipality in Region 2.

The Provinces of Cagayan and Isabela, City of Ilagan and Municipality of Alcala were selected as a result of consultation with OCD-R2, an investigation of past disasters, existence of risk analysis reports, and the establishment of structural and non-structural DRRM-related countermeasures.

##### (c) Process followed to formulate the four pilot LDRRMPs

The Planning Component followed the same process as the formulation of the CVDRRMP. In addition to the three participatory WS, Technical Working Group (TWG) meetings were periodically held in order to check them and make revisions.

2013	July	August	September	...	2014
Cagayan Province	WS1-2 (16-19) ☆	TWG1 (1) ● TWG2 (22) ● TWG3 (29) ●	TWG4 (10) ● WS3 (19-20) ☆ TWG5 (26) ●		
Isabela Province	WS1 (23-24) ☆ TWG1 (29) ●	WS2 (6-7) ☆ TWG2 (27) ●	TWG3 (5) ● TWG4 (20) ● WS3 (27) ☆		SP Approval (9/17)
Iligan City		WS1-2 (20-23) ☆	TWG1 (1) ● TWG2 (22) ● WS3 (26) ☆		SP Approval (7/23)
Alcala Mun.		WS1-2 (13-16) ☆ TWG1 (20) ● TWG2 (30) ●	TWG3 (9) ● WS3 (10) ☆		SB Approval (9/15)

\* SP: Sangguniang Panlalawigan(Province), Sangguniang Panlungsod(City)

\* SB: Sangguniang Bayan (Municipality)

Prepared by the experts

Figure 2.3.4 Schedule of the formulation of the four LDRRMPs



Provided by Pilot LGUs

Figure 2.3.5 Cover pages of the four LDRRMPs

The process followed was the participatory process introduced by the “Local Disaster Risk Reduction and Management Plan Formulation Training Manual (LDRRMP Formulation Training Manual)” published by OCD in 2013.

Prior to the workshop session, lectures provided by Regional offices of technical agencies (MGB, PAGASA) and RDRRMC members (DILG, DSWD) were held to establish a common understanding of the basis of the plan, such as the socio-economic aspects of the LGU, future perspective, disaster risk, and existing DRRM-related measures.



Lecture on the earthquake by PHIVOLCS-R2  
(Alcala WS-2013.8.13)



Explanation on Japanese Mitigation Map  
(Isabela WS-2013.9.19)

Photos taken by the experts

Figure 2.3.6 Lectures conducted by technical agencies and Japanese experts

The following table shows the major characteristics of the formulation process followed in the four pilot LGUs.

Table 2.3.2 Major Characteristics of LDRRMP process followed by JICA-DRRM CEP

	Major Characteristics
Cagayan Province	<i>Consideration of response activities during wide-area disaster</i> <ul style="list-style-type: none"> <li>➢ Representatives participated from Philippine Navy and Coast Guard</li> <li>➢ Representatives participated from cities and municipalities where the vulnerability to disaster and where the risk of isolation during disaster are high</li> </ul>
Isabela Province	
Iligan City	<i>Reflection of many organizations including the private sector</i> <ul style="list-style-type: none"> <li>➢ Representatives from NGOs such as WWF which is supporting the Abuan Watershed Preservation project in Iligan City</li> <li>➢ 5 barangays out of 91 were present</li> </ul>
Alcala Municipality	<i>Active participation of the Barangays</i> <ul style="list-style-type: none"> <li>➢ In the future, all the Barangays will be requested to formulate a Barangay DRRM Plan compliant with the MDRRMP. To facilitate future activities, all 25 barangays were invited to participate in the MDRRMP formulation; 20 barangay were represented</li> <li>➢ To facilitate the approval of the MDRRMP, members of the Sangguniang Bayan were assigned to attend TWG meetings</li> </ul>

Prepared by the experts

#### (d) Introduction of the Japanese DRRM experience

The Japanese experts introduced some concepts of the Japanese DRRM and good practices as a reference.

Table 2.3.3 Contents of the presentation

No.	Japanese Experience	Contents
1. Prevention and Mitigation		
1-1	Develop mitigation map	Introduce popular “Disaster Prevention Map” as a mitigation map.
1-2	Enhance disaster education	Present the case of Kamaishi in the Great East Japan Earthquake.
1-3	Enhance disaster drills	Explain the necessity of drills by residents to promote the local responder’s skill
1-4	Self-sustaining community	Show the importance of mutual help for community-based disaster reduction
1-5	Building retrofit	Introduce measures of raising awareness for seismic retrofitting of buildings
1-6	Develop clear criteria to issue alerts	Introduce recommended clear markers for immediate evacuation

No.	Japanese Experience	Contents
2. Preparedness		
2-1	Enhance cooperation in the river basin	Introduce river basin approach for reduction of damage due to flooding
2-2	Emergency route	Introduce emergency route designation.
3. Response		
3-1	Promotion of EWS	Recommend actions necessary to establish reliable issuance of alerts.
3-2	Inter-Regional/Provincial Partnership	Introduce Japanese partnership arrangements between regions
4. Rehabilitation		
4-1	Coordination with volunteers	Introduce the system of volunteer centers to coordinate their activities.

*Prepared by the experts*

## 2) Other activities to support the enhancement of LDRRMP

### (a) Introduction of Japanese DRRM knowledge during the Regional DRRM Summit

To guide LGUs in the national DRRM policy and the LDRRMP template adopted during the National DRRM Summit, Regional DRRM Summits were conducted in the seventeen regions from July to September 2013.

The Planning Component attended some summits and collected information to understand the challenges LGUs have to face to fulfill the national DRRM standard. During the summits, OCD central officers presented DRRM good practices and the Japanese experiences shown in the Table 2.2.3 as a reference to strengthen local DRRM capacity.

### (b) Sharing of the LDRRMP formulation experience

The pilot RDRRMP was formulated within 4 months and the four pilot LDRRMPs within three months. A Knowledge-Sharing (KS) seminar was held to share the knowledge acquired through this activity and to discuss the role of OCD in enhancing the implementation of comprehensive LDRRMPs on September 12, 2012.

All the OCD-R Directors, representatives from the pilot LGUs, and related agencies attended this seminar. During this activity, the need to establish a system to monitor the actual status of the LDRRMP formulation was recognized by the majority of the participants.

### (c) Support during LDRRMP orientation WS

The DRRM Provincial Summit of Isabela was conducted in June 2014. During this summit, the LDRRMP template adopted in 2013 was re-explained to the cities and municipalities.

As a consequence of the requests raised by the cities and municipalities and report of the interim results of the pilot test conducted by the Planning Component, Isabela Provincial DRRM Office (PDRRMO) recognized the need to guide C/M on the purpose and contents of LDRRMP in detail. In this view, Isabela PDRRMO decided to conduct an LDRRMP orientation WS in November 2014 with the support of OCD-R2 and JICA DRRM CEP. A similar activity was conducted in the Province of Cagayan in December.

All the cities and municipalities were invited to attend a two-day training WS. Participants exchanged ideas on how OCD-R2 and PDRRMOs should support cities and municipalities.

The conduct of the orientation workshop led by the Provincial Offices is fundamental to ensure the formulation of comprehensive LDRRMP in the lower level of governance, and the Planning Component supported this activity by providing explanatory materials and program.



(Cagayan WS-2014.12.15)



(Isabela WS-2014.11.27)

*Photos taken by the experts*

Figure 2.3.7 LDRRMP-Orientation Workshop

**(3) Development of monitoring system for Local DRRM Plans (LDRRMP) and Local DRRM Offices (LDRRMO)**

[53] Development of monitoring system for Local DRRM Plans (LDRRMP) and Local DRRM Offices (LDRRMO)

**1) Support the development of monitoring system for LDRRMPs**

**(a) Revision of the Project Design Matrix (PDM)**

One priority of the OCD is to improve the quality of all the LDRRMPs nationwide. To achieve this goal, comprehensive LDRRMP formulation and a periodic review must be institutionalized. During the KS seminar and Project Cycle Management Workshop, the development of a monitoring and evaluation system was strongly requested and was added to the PDM.

**(b) Actual status of LDRRM Plans (as of December 2014)**

The following table was prepared based on results of the investigations conducted by the OCD and the Bureau of Local Government Development (BLGD) of DILG.

90% of the LGUs have submitted a plan. However, as noted during the pilot test, only a few are currently in compliance with the LDRRMP template in the Provinces of Cagayan, Isabela and Bataan.

Table 2.3.4 Status of the LDRRMP (as of December 2014)

Region	No.of LGU (P/C/M)	Submitted LDRRMP (%)	Remarks
1	129	129 (100%)	
2	98	91 (93%)	At least 5 LDRRMPs in compliance with the template
3	137	128 (93%)	
4A	147	142 (97%)	38 LDRRMPs in compliance with the template
4B	78	73 (94%)	
5	120	112 (93%)	
6	139	130 (94%)	
7	136	136 (100%)	
8	149	126 (85%)	At least 2 LDRRMPs in compliance with the template
9	75	68 (91%)	
10	98	82 (84%)	
11	54	52 (96%)	
12	54	47 (87%)	
CARAGA	78	73 (94%)	
CAR	83	83 (100%)	
NCR	17	15 (88%)	At least 3 LDRRMPs in compliance with the template
ARRM	123	62 (50%)	
Total	1,715	1,549 (90%)	At least 48 LDRRMPs in compliance with the template

Source: Plans and Programs Division-OCD "List of DRRM Plans as of April 2014" and BLGD-DILG "Database of LDRRMPs 2014"

**(c) Preparation of draft review tools and conduct of a pilot test**

The Planning Component referred to the NDRRM Plan, RA10121 and IRR, Gawad Kalasag criteria and LDRRM Plan Formulation Training Manual to draft review tools for LDRRMPs.

A pilot test was conducted to investigate the status of comprehensive LDRRMP formulation and to analyze the problems LGUs have to clear. The details on the pilot test are shown in Annex A1. The major results are:

- ♦ 20 out of the 33 LDRRMPs collected are formulated in a matrix form similar to the Local DRRM Fund Investment Plan (LDRRMFIP) format.
- ♦ 20 of the plans are an annual plan, whereas LDRRMPs are expected to identify medium- or long-term visions and strategies.
- ♦ Because the PPAs have to be identified for the release of the LDRRMF, detailed PPAs are present in almost all of the plans.
- ♦ Although the PPAs must be identified based on the reflection of disaster risk analysis and Strengths, Weaknesses, Opportunities, and Challenges (SWOC) identification, only a few plans refer to these.

**(d) Finalization of the review tools**

To finalize the review tools, the following organizations were consulted and a Multi-Agency Consultation Workshop was conducted December 11-12, 2014, in order to finalize the tools, consider

how to enhance the formulation of comprehensive LDRRMPs, and consider how to conduct the review (review process).

The final version of the review tools is attached as Annex A2.

Table 2.3.5 List of organizations and offices consulted

	Level of governance	Organization/Office
OCD	Regional	OCD-R2 OCD-R3 OCD-R4A OCD-R10 OCD-Caraga
DRRMO	Provincial	Cagayan Isabela Bataan
DILG	Central	Bureau of Local Government Service Bureau of Local Government Development Local Government Academy
	Regional	DILG-R2 DILG-R3
	Provincial	DILG-Cagayan DILG-Bataan
Other Agencies	Central	Housing and Land Use Regulatory Board National Economic and Development Authority



*Photos taken by the experts*

Figure 2.3.8 Multi-Agency Workshop

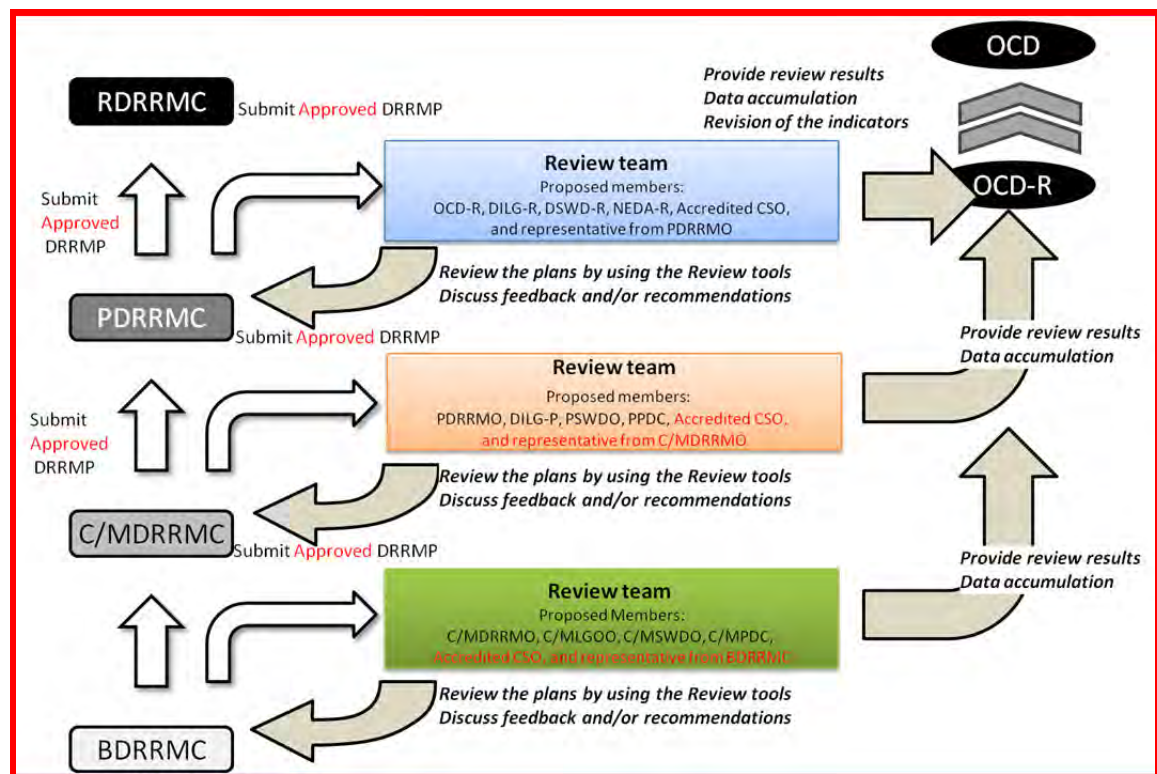
A group exercise was conducted during the multi-agency workshop and the participants reviewed the MDRRMP of Alcala (JICA-DRRM CEP pilot LGU) and the MDRRMP of Appari (supported by OCD-R2) by using the checklist and review form. Because one of the characteristics of the process proposed by the Planning Component is the creation of multi-organization reviewing teams, the participants were divided into the following three groups.



Table 2.3.6 Grouping for the finalization of the review tools

Group 1	Group 2	Group 3
Dir. Norma Talosig, OCD-R2	Dir. Ana Caneda, OCD-R10	ARD Edgar Nigel Lontoc, OCD-R3
Ms. Doreen Sanchez, OCD-R3	Dir. Vicente Tomazar, OCD-R4	Ms. Lorene Catedral, OCD-CARAGA
Ms. Loida Ramos, BLGS-DILG	Ms. Sly Barrameda, LGA	Ms. Medel Espinosa, LGA
Ms. Emma Ulep, HLURB	Ms. Julia Mae Collado, HLURB	Ms. Donna Ronquillo, NEDA
Mr. Edwin Elegado, DRRNet	Ms. Hazel De Chavez, NEDA	Mr. Ninoy Balgos, DRRNet
-	Ms. Jane Airien Torres, OCD-R2	Mr. Larry Haveria, OCD-R4A

Prepared by the experts



Prepared by the experts

Figure 2.3.9 Proposed Review Process (based on the consultation with related agencies)

## 2) Support the development of monitoring system for LDRRMOs

As stated in RA10121, LDRRMOs are “responsible for setting the direction, development, implementation, and coordination of disaster risk management programs within their territorial jurisdiction.”

To ensure the functionality of LDRRMOs, Joint Memorandum Circular 2014-1 (JMC2014-1) between NDRRMC, DILG, Department of Budget and Management (DBM) and Civil Service Commission (CSC) was issued in April 2014.

The Planning Component focused on the role of the OCD related to LDRRMOs defined in RA10121 and JMC201-1 to consider how to monitor LDRRMOs.

Table 2.3.7 Roles of OCD

	Related statements
RA10121	Section 8 (f) [The Office of Civil Defense shall] ensure that the LGUs, through the Local Disaster Risk Reduction and Management Offices (LDRRMOs) are properly informed and adhere to the national standards and programs
RA10121 IRR	Rule 8. Linking Local Database with the National Database The local databases on human resources, equipment, directories and location of critical infrastructures and their capacities, developed and compiled by LDRRMOs shall be linked with the national database maintained by the OCD.
JMC2014-1	Section 8.4 The NDRRMC, through OCD, shall monitor the enforcement of this JMC and provide technical assistance to ensure the functionality of LDRRMO or BDRRMC.

*Prepared by the experts*

In JMC2014-01 the responsibility of DILG is to “ensure and monitor the establishment of the LDRRMO or Barangay DRRM Committee (BDRRMC) in provinces, cities, and municipalities or barangays nationwide” and the responsibility of NDRRMC, through the OCD is to “monitor the enforcement of this JMC and provide technical assistance to ensure the functionality of LDRRMOs or BDRRMC.”

This means that the OCD has to investigate the functionality of the LDRRMOs and identify what technical assistance to provide. Some investigations on the establishment of LDRRMOs were conducted in the past, but only the presence or absence of an LDRRMO was checked.

To check the functions cited in JMC2014-1, the Planning Component considered detailed indicators and prepared a checklist, attached as Annex A3.

The three following indicators are imperative to ensure the functions identified in JMC2014-01:

- ◆ Manpower
- ◆ Plans and Procedure
- ◆ Investment and utilization of LDRRMF

The following indicators were classified as “additional” because other branches of the LGUs are involved:

- ◆ Material
- ◆ Coordination with related agencies, inter-LGU agreement
- ◆ Community-based DRRM activities, DRRM education
- ◆ Other topics specific to LGUs

### 3) Database development

To improve the quality of LDRRMPs and to strengthen LDRRMOs, the analysis of the monitoring results will be needed to understand the actual situation. That is the reason why a database was prepared to accumulate the results of the review.

The information to input for the LDRRMOs is the same as explained previously.

Regarding the LDRRMPs, it was recognized that periodic reviews are fundamental to formulate a good LDRRMP. Though there is a huge number of LGUs and indicators in the review tools, there was a need to extract the information to register in the database. To ensure regular updates of the database, the following summary sheet indicating the information to input in the database was prepared.

The form is titled "Summary of the review results (Final version, January 2015)" and is part of the "Disaster Risk Reduction and Management (DRRM) Capacity Enhancement Project" by the Office of Civil Defense (OCD). It contains the following fields and values:

- Name of the LGU: Sanchez, Una (Arrow points to label A)
- Type of the LGU: Provincial City (Guangalan)
- Name of the Plan: Municipal Disaster Risk Reduction Management Plan 2013-2016
- Date of the Plan adoption: 2013 (Arrow points to label B)
- Period of the plan: From 2013 - To 2016
- Number of the contents checked (checkboxes): 25 out of 45 indicators (83%) (Arrow points to label C)
- Presence of important recommendations (checklist): Yes (No) (Arrow points to label D)
- If Yes, please write the recommendations: (Empty field)
- Next review target year: 2016 (Arrow points to label E)
- Review team members / organizations: JICA-DRRM CEP
- Date of the review / Submission of the results summary: Dec-14

*Prepared by the experts*

Figure 2.3.10 Summary Sheet

The screenshot shows a web-based database interface for "LOCAL GOVERNMENT USER". It features a sidebar menu on the left and a main content area. The main content area includes a "LOCAL DRRM PLAN COMPLETION STATUS" section with various input fields and buttons. Labels A through E are placed over the interface to correspond to the fields in Figure 2.3.10:

- Label A: Points to the "LGU" dropdown menu.
- Label B: Points to the "Province" dropdown menu.
- Label C: Points to the "Period of the plan" input field.
- Label D: Points to the "Presence of important recommendations" input field.
- Label E: Points to the "Next Review Target Year" input field.

*Prepared by the experts*

Figure 2.3.11 Image of the Database

**(4) Review RA10141 and National Disaster Risk Reduction and Management Plan (NDRRMP) on LGUs DRRM activities**

[54] Suggestions for Sunset Review of RA10121 and improvement of NDRRMP on LGU's DRRM activities

**1) Revision of Outcome 9 in order to enhance the formulation of a comprehensive LDRRMP**

*Related document: NDRRMP Outcome 9 Output 2.1*

The development of Local DRRMPs was identified as an “NDRRMP priority project” to be implemented within the immediate or short-term period from 2011 to 2013.

The results of the investigation held by DILG-BLGD and OCD show that more than 90% of the LGUs submitted LDRRMPs. This means that Outcome 9, “2.1 Develop the Local DRRMP,” was almost achieved.

However, as written in the RA10121 Section 12, the Local Disaster Risk Reduction and Management Offices shall “formulate and implement a comprehensive and integrated LDRRMP in accordance with the National, Regional, and Provincial Framework, and policies on disaster risk reduction in close coordination with the Local Development Councils (LDCs)”. Unfortunately, the results of the pilot test in the provinces of Cagayan, Isabela, and Bataan showed that the majority of the LDRRMPs are not as comprehensive as expected.

Based on this, the next step will be to “develop a comprehensive Local DRRM Plan based on the template prescribed by NDRRMC.” That is why the Planning Component suggests adding one output or revising Outcome 9 Output 2.1.

**2) Strengthen the coordination among related agencies to revise the LDRRMP template/review checklist and formulation manual.**

*Related documents: RA 10121 section 8; IRR of the RA10121 Rule 7 section 3(e)*

As written in rule 7 of the IRR of the RA10121, OCD shall “Review and evaluate the Local Disaster Risk Reduction and Management Plans (LDRRMPs), in coordination with concerned agencies and or instrumentalities, to facilitate the integration of disaster risk reduction measures into the local Comprehensive Development Plan (CDP) and Comprehensive Land-Use Plan (CLUP)”; this must be enforced.

The Planning Component followed the process introduced in the “Local Disaster Risk Reduction and Management Plan Formulation Training Manual.” However it seems that at the present time, LGUs do not have enough skills or manpower to follow this process and to formulate a comprehensive LDRRMP in compliance with the LDRRMP prescribed by NDRRMC through OCD.

That is why the Planning Component suggests identifying the medium- and long-term objectives, such as “all the LGU developed an LDRRMP in which XX% of the contents indicated by the LDRRMP template/checklist are present until 20XX.” Based on these intermediate objectives, revisions of the template, checklist, and formulation manual must be held periodically in coordination with related agencies and have to be strengthened.

Since DILG is preparing a “Guide to mainstreaming Disaster Risk and Climate Change in the Comprehensive Development Plan” for the LGUs, the revision of the LDRRMP formulation manual will be needed in the future.

To enhance the formulation of the DRRM related plans such as CDP, CLUP and LDRRMP, the burden of the LGUs has to be decreased. That is why the coordination between the national agencies, which are responsible for formulating the policies training programs and module preparation, has to be strengthened as indicated in RA10121.

### **3) Promote the use of science-based tools**

*Related document: RA 10121 section 6 (j) and section 12 (3), (9)*

RA 10121 indicates that NDRRMC shall “Develop assessment tools on the existing and potential hazards and risks brought about by climate change to vulnerable areas and ecosystems in coordination with the Climate Change Commission” and LDRRMOs shall “(3) consolidate local disaster risk information which includes natural hazards, vulnerabilities, and climate change risks, and maintain a local risk map” and “(9) identify, assess and manage the hazards, vulnerabilities and risks that may occur in their locality.”

The technical agencies such as MGB, PHIVOLCS, PAGASA and NAMRIA prepared and are sharing risk maps/vulnerability maps, and disaster analysis reports. In the two pilot provinces of Cagayan and Isabela, the Ready Project prepared risk maps, and the MGB formulated Geo-hazard maps (Flooding and Landslide) for all the Cities and Municipalities of the Province of Isabela.

DRRM vision, outcomes, PPAs (Project, Program Activities) must be identified on the analysis of the present situation and SWOC (Strengths, Weakness, Opportunities, and Challenges). However, the results of the pilot test demonstrated that the SWOC and risk profile and use of science-based knowledge were mentioned in only a few LDRRMPs.

In the future, the data provided by technical agencies will be more sophisticated and methods to transmit information will be performed.

That is why the Planning Component suggests adding “Ensure the propagation of the latest science-based tools to the LGUs/LDRRMOs, provide technical assistance to ensure that scientific knowledge and analysis results will be reflected in the LDRRMPs” to the existing function, which is limited to “Develop assessment tools on the existing and potential hazards and risks.”

### **4) Need to ensure the establishment of functional LDRRMOs**

*Related document: Local Government Code etc.*

To enhance the establishment of functional LDRRMOs, JMC 2014-1 was issued in April 2014.

However, the actual situation is that because of the lack of manpower, skills, and budget resources, the LDRRMOs cannot be as operational as indicated in the memorandum and the budget allocated to LDRRMOs depends on the “willingness” and “priorities” of the Local Chief Executives.

That is why the Planning Component also suggests mentioning the establishment of LDRRMOs in the Local Government Code.

To enhance the functionality of LDRRMOs by providing adequate assistance, all the NDRRMC member agencies should share their expectations to LDRRMOs and clarify the role and responsibility of each agency.

## 2.4 Output 2: Operations Component

### 2.4.1 Outline

#### (1) Output and Activity on PDM

##### 1) Output

2. The DRRM activities including information management are standardized.

##### 2) Activity

The Output has not been modified since the beginning of the Project. On the other hand, Activities have been redirected to achieve an output in line with the progress of work through the project activities.

Table 2.4.1 Transition of Activities (Output 2)

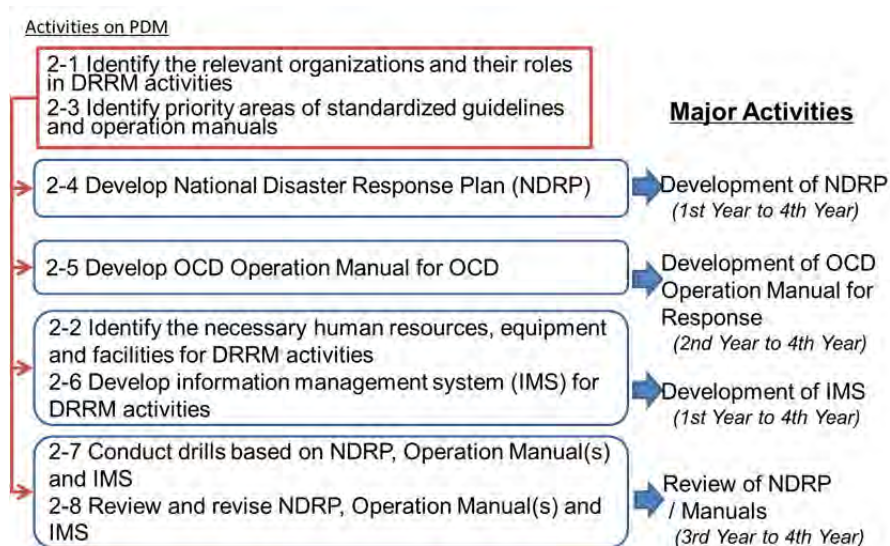
No.	First Year	Second Year	Third Year
2-1	Identify the relevant organizations and their roles in DRRM activities		
2-2	Identify the necessary human resources, equipment, and facilities for DRRM activities		
2-3	Identify priority areas of standardized guidelines and operation manuals	“Specific activities have not been executed since the determination of targets for output 2”	
2-4	Prepare the drafts of guidelines and operation manuals on information management and other priority areas	Develop National Disaster Response Plan (NDRP)	
2-5		Develop OCD Operation Manual	Develop OCD Operation Manual for Response
2-6	Develop information management system (IMS) for DRRM activities		
2-7	Conduct drills based on the draft guidelines and operation manuals	Conduct drills based on NDRP, operation manual(s), and IMS	
2-8	Revise the guidelines and operation manuals management system	Review and revise NDRP and operation manual(s)	Review and revise NDRP, operation manual(s) and IMS

Source: DRRM-CEP Team

Table 2.4.2 Activities of Output 2 (Third Year)

No.	Activities (Third Year)
2-1	Identify Relevant Organizations and Their Roles in DRRM Activities
2-2	Identify the Necessary Human Resources, Equipment, and Facilities for DRRM Activities
2-3	Identify Priority Areas of Standardized Guidelines and Operation Manuals
2-4	Develop National Disaster Response Plan (Hereinafter Referred to as “NDRP”)
2-5	Develop OCD Operation Manual for Response
2-6	Develop Information Management System (IMS) for DRRM Activities
2-7	Conduct Drills Based on NDRP, operation manual(s), and IMS
2-8	Review and Revise NDRP, operation manual(s), and IMS

Source: DRRM-CEP Team



Source: DRRM-CEP Team

Figure 2.4.1 Activities of Output 2 (Operation Component)

## (2) Major Products

### 1) NDRP (National Disaster Response Plan)

The formulation of the NDRP is one of the prioritized activities specified in the NDRRMP (National Disaster Risk Reduction and Management Plan). In the Project, the NDRP for Hydro-Meteorological Disasters and Earthquakes and Tsunamis has been developed. Based on this NDRP, it is expected that OCD and other NDRRMC Member agencies will acquire the ability to conduct prompt and harmonized disaster response operations.

### 2) OCD Operation Manual for Response

The OCD Operation Manual for Response (hereinafter, “the Manual”) has been prepared based on roles and responsibilities of OCD-CO and OCD-RO designated according to the NDRP. The Manual also includes Memorandum Circulars (MCs), SOPs and Manual-related response operations as Annexes. It is expected that staff of OCD conducts him/herself in an appropriate manner as responder or coordinator in accordance with policy on the NDRP.

### 3) IMS (Equipment and Manuals/Training Modules)

Procurement of equipment for operating IMS introduced to OCD includes server computers, desktop computers, A0 Plotter, and GIS Software (Arch GIS). These are utilized to develop databases and modules necessary for improving disaster response operations and compiling historical disaster data as well as knowledge. In addition, the manuals, guidelines, and training modules for IMS and GIS to be sustainably utilized in OCD were also prepared. These manuals are attached at the end of the OCD Operation Manual for Response as one of Annexes. The IMS developed in the Project will aid OCD in preparing disaster situation maps and accumulating historical disaster records or other activity records as databases. These situation maps will support the officers of OCD in making decisions on operations and the created databases will also be useful to evaluate and assess the hazard and risk.



### **(3) Result of Technical Transfer**

In the Project, the Team for the Operation Component carried out the targeted activities with the aim that “DRRM activities including information management are standardized.”

According to the initial study in the beginning term of the Project, the development of the NDRP, which is an essential plan for the standardization of national disaster response operations, was selected as a core activity from the viewpoints of “Involvement of Multiple Agencies,” “Urgency/General Versatility,” and “OCD Initiative.” In this connection, the Team has also conducted activities for the development of the OCD Operations Manual for Response and the development of an Information Management System (IMS).

As a result, the achievements of technical transfer through activities are almost completed (See Chapter 3). The NDRP for Hydro-meteorological disasters was finally approved and the IMS for the OCD has been operated with basic GIS skills, although final approval for both the OCD Operation Manual for Response by the CDA and the NDRP for Earthquakes and Tsunamis have not yet been obtained.

The capacity (standardization) of the OCD C/P and related agencies has been developed with the following specific and remarkable results:

#### **1) Mutual Understanding of Interoperability based on National Disaster Response Operations among NDRRMC Member Agencies**

The standardization of the basic national response operations through final approval of the NDRP for Hydro-meteorological disasters was achieved. Hereafter, DSWD and OCD will take the initiative in disaster response activities including the PDRA, RDANA, PDNA, and Cluster Approach together with IHG (International Humanitarian Group) in accordance with interoperability commonalized through the Project. Based on this standardization, the staff of OCD has acquired the ability to direct necessary activities to be conducted by the NDRRMC member agencies promptly and coordinate activities among agencies during disaster preparedness and response operations.

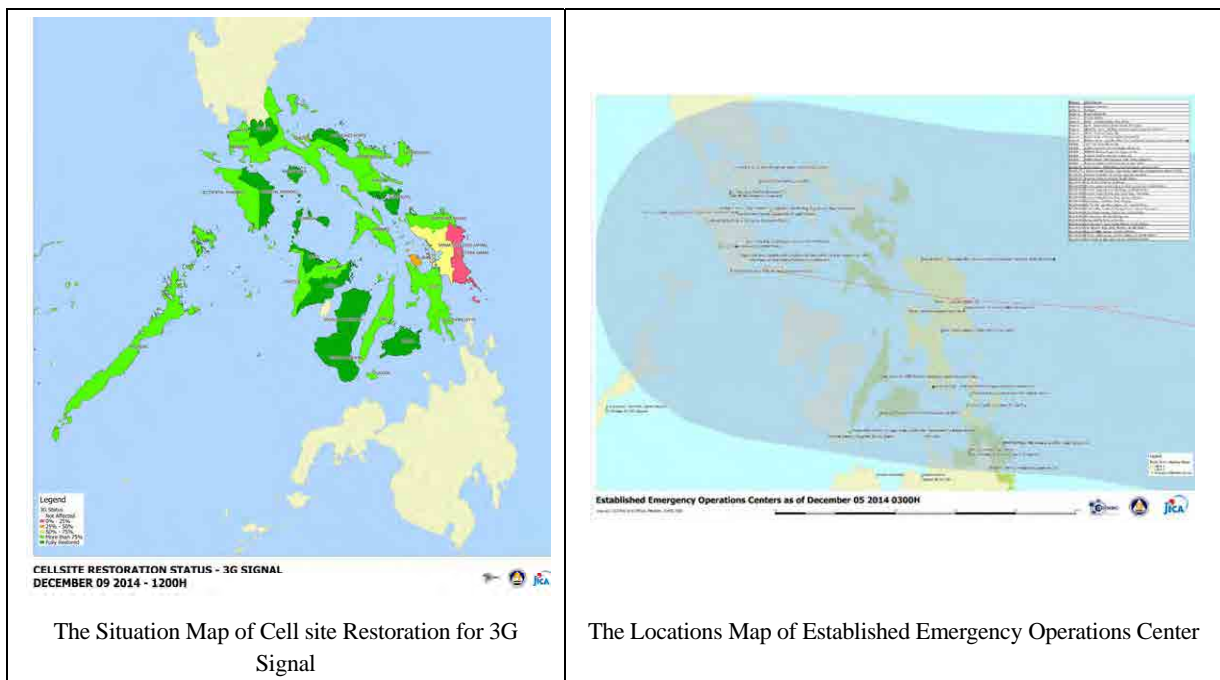
#### **2) Acceleration of Supporting and Coordinating Activities for Disaster Response Operations by the OCD**

In the Project, the OCD C/P and DSWD acquired knowledge, skills, and/or techniques of cooperating systems and approaches with revising mechanisms utilizing the PDCA cycle regarding the development of the NDRP and response manual as well as the conduct of Table-top Exercises through actual activities. These skills can be applied for formulating other plans, such as the NDRP for other disasters, updating the NDRP, and planning for other thematic areas. The DSWD has a strong intention to improve disaster response mechanisms and standardize DRRM activities under a good coordination system with OCD. The DSWD and OCD have acquired the ability to revise and update the NDRP and their operations manual(s).

In addition, acceleration of standardization in one of the other thematic areas has already commenced. In effect, the formulation of the NDPP (National Disaster Preparedness Plan) has begun under the initiative of the DILG. It is expected that these movements will be accelerated.

### 3) Expeditious Provision of the Latest Disaster Situation Maps and Usable Spatial Information for Disaster the response activity to the NDRRMC using the OCD-IMS

As explained in section [14], the IMS constructed during DRRM-CEP activity has already been utilized for disaster response of the OCD and the NDRRMOC. As a good example, the situation maps shown below were created by CEIS Division and Operations Division in the absence of the support from the DRRM-CEP Team during response activities of Typhoon Ruby on the first of December, and those maps were used as the basic material for decision-making in the NDRRMC. As shown in Figure 2.4.2 below, the staff of OCD has acquired the ability to prepare figures and tables for decision-making using IMS and basic GIS techniques.



Source: DRRM-CEP Team

Figure 2.4.2 The situation maps created by the OCD during response activity of typhoon Ruby in the absence of the supports from DRRM-CEP Team

#### (4) Actual Schedule conducted for Output 2 (Operation Component)

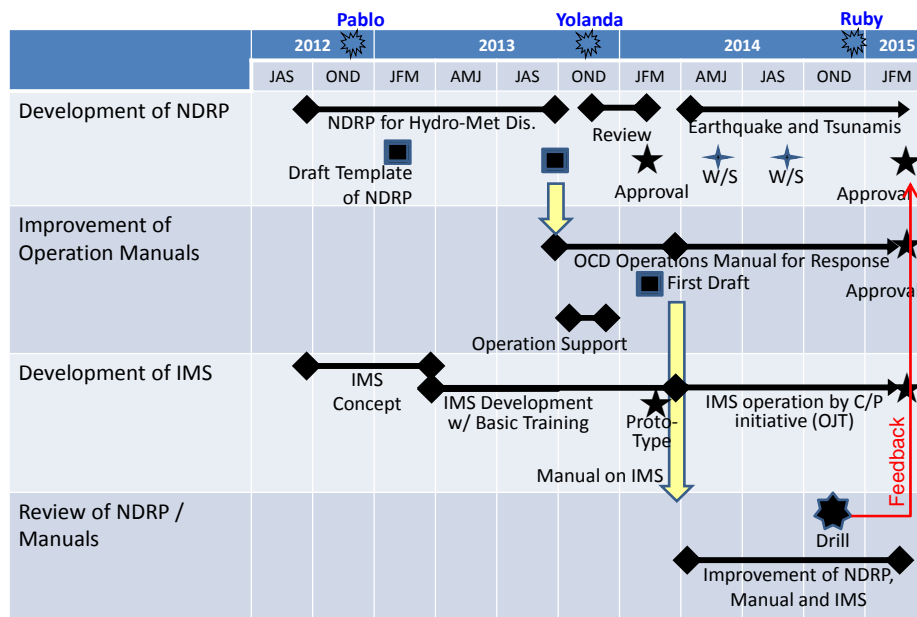
As explained in Chapter 1, the activities commenced in March 2012. For the initial duration of 6 months, the Team did a walk-through and elaborated on the OCD as follows:

- ◆ Confirm basic roles and responsibilities of the OCD and other NDRRMC member agencies according to Activity No. 2-1: Identify the Relevant Organizations and Their Roles in DRRM Activities as stated in the PDM (Ver.1.0), and
- ◆ Confirm basic facilities and equipment of the OCD and other NDRRMC member agencies and several LGUs, in particular information management, according to Activity No. 2-2: Identify the Necessary Human Resources, Equipment, and Facilities for DRRM Activities

These activities were conducted by means of holding small meetings and/or interviews/hearing activities and utilized for Activity 2-3: Identify Priority Areas of Standardized Guidelines and Operation Manuals as stated in the PDM (Ver.1.0).

As a result, more specific and concrete activities regarding Activity 2-4 were determined.

Specific activities related to PDM, such as “Develop the NDRP” and “Develop OCD Operation Manual,” were approved in the Second JCC Meeting held in August 2012 and have commenced since August 2012. The actual result of the implementation schedule of the Operation Component (Output 2) is charted in Figure 2.4.3 shown below.



Source: DRRM-CEP Team

Figure 2.4.3 Implementation Schedule of Operation Component (Actual Result)

## 2.4.2 Activity Report

### [10] Identification of Related Agencies and Clarification of their Roles

Agencies concerned with the DRRM were identified based on RA10121, which was approved on May 27, 2010, and further clarified in the NDRRMP, launched on October 10, 2012. However, the OCD recognized that several plans and manuals had been prepared under PD1566 (the former Philippine DRM policy) to be updated to clarify the roles and responsibilities of the NDRRMC member agencies in more detail for smooth and appropriate operations and coordination in pre-, during- and post-disaster phases, respectively.

In this regard, the Team identified that standardization of response operations was more prioritized than other activities through Activity 2-3: Identify priority areas of standardized guidelines and operation manuals as stated in the PDM (Ver.1.0). Therefore, the roles and responsibilities of the agencies related to DRRM to be standardized in response operations have been identified throughout the Project as Activity [12] or Activity 2-4 and 2-5: Develop National Disaster Response Plan (NDRP) and Develop OCD Operation Manual for Response.

(Refer to Activity [12] described below)

[11] Study on Personnel/Equipment/Facilities required for Standardizing DRRM Activities

**(1) Current Manpower and Facility/Equipment Augmentation Plans of OCD**

Through activities [12]: Preparation of National Disaster Response Plan (NDRP) for Selected Disasters, [13]: Preparation of Operation Manual(s) for Selected Prioritized Area(s), and [14]: Development of an Information Management System required for Priority Areas of Operation, C/P and experts developed the NDRP, OCD Operations Manual for Response and IMS (see succeeding sections.) Through the development of these outputs, C/P and experts also discussed manpower and facilities/equipment needed for suitable operations to be conducted by OCD. As a result, it was confirmed that the following manpower and facility/equipment augmentation plans currently exist in OCD.

**1) Organization Augmentation Plan by the OCD**

The OCD has to broadly coordinate and support the Philippine DRRM activities in accordance with RA10121. To achieve this mission mandate, the OCD has planned an improvement of the OSSP (Organizational Structure and Staffing Pattern) since 2010, just immediately after the enactment of RA 10121. The Plan OSSP has been revised, updated, and reviewed based on comments by the DND, but the basic policy in which the number of OCD staff drastically increases from 300 to 1,500 personnel has never been actuated.

The Plan the OSSP prepared in 2013 was revised based on comments by the DND, and the latest OSSP submitted to the DND in 2014 has finally been approved by the SND. Hence, the annual budget in Fiscal Year 2015 is based on the latest OSSP even though this OSSP is now being investigated by the DBM (Department of Budget and Management).

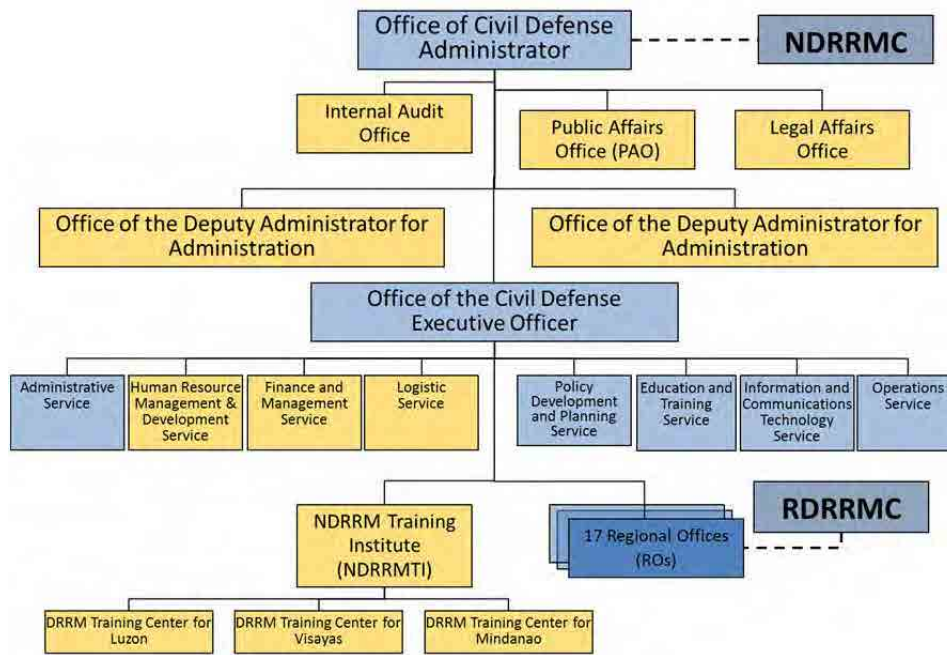
According to this OSSP, the new organizational structure of the OCD-CO is six (6) offices and eight (8) divisions managed by a CDEXO as shown in the table and summarized in the figure, shown below.

**Table 2.4.3 Outline of Manning Schedule by the New OSSP (Proposed)**

Item	New OSSP	Remarks
Total Number of Staff	1,501	Present: 301 (increase annually by 2018)
Central Office	361	Present: 117
Operations Service	67	Present: 29 (incl. NDRRMS and Operations Center)
Logistics	27	Present: 2
CEIS	39	Present: 1 (rename to ICTS <sup>(*)</sup> )
Planning	35	Present: 6 (tasks include political development planning)
Education and Training	27	Present: 12
Human Resources Dept.	34	Present: 9
Regional Offices	1,048	Present: 183

\*1: ICTS: Information and Communications Technology Service

Source: DRRM-CEP Team



Source: OCD OSSP (Newly proposed in 2014)

Figure 2.4.4 Organizational Structure by New OCD OSSP (Proposed)

As shown in the table above, each division of the OCD-CO under which approximately 10 staff is currently working on average will be expanded up to 20 to 40 staff respectively. In particular, the number of staff in Operations Service which merges the NDRRMS and Operations Division and plays an important role in case of disaster response operations will increase to 67 staff.

The point or aim of this Plan OSSP is to especially enhance the capacity of OCD-ROs. The number of staff of the OCD-CO will triple but the number of staff of OCD-ROs in total will increase six-fold.

## 2) The Augmentation Plan of Facilities and Equipment on Information and Communication Technology

The OCD aims to augment systems of information and communication technology (ICT) in parallel with increasing man power and has already implemented several ICT projects. Since 2013, the OCD has proposed and implemented six (6) projects by CEIS and Operations Divisions, listed below:

- ◆ Emergency Radio Communication Systems Project
- ◆ NDRRMC/OCD CEIS Network Project
- ◆ Enhancement of Regional the DRRM Center's Radio Communication Systems Project
- ◆ National Public Warning System through Cell Broadcast (Smart, Globe, Sun)
- ◆ OCD-Smart Info Board System
- ◆ Project DINA

In addition, SMS-GT (private information technology company) offered a grant aid project for construction of a new NDRRMOC to the OCD due to the intention of contributing to the country based on the tremendous damage by typhoon Yolanda. This project is now in action by the OCD. Furthermore, the OCD and related agencies have recently started several projects of the ICT on the DRRM since 2014, as listed below:

- ◆ IBM Intelligent Operations Center (IOC)
- ◆ NDRRM Fund Online Applicant System
- ◆ Philippine Geoportal System
- ◆ Project “BATINGAW”

As for cooperative activities by the Government of Japan, the MIC (Japan) signed a joint statement on the cooperation and promotion in the fields of ICT and agreed on the implementation of an “International Joint Program for Resilient ICT System” with DOST. Under this program, Japan and the Philippines jointly introduce the best practices of disaster-management ICT systems by concentrating on experiences and knowledge of natural disasters, particularly, the Great East Japan Earthquake and the Philippines’ super typhoon Yolanda. One of the objectives of this program aims to promote the effective and efficient utilization of disaster management ICT systems as the "Booklet of Best Practices," based on the experiences of earthquakes, floods, tsunamis, typhoons and other natural disasters. Through this program, a pilot project has started to investigate the effectiveness and efficiency for the EWBS and involved OCD/NDRRMC.

The ICT Service (or formerly CEIS Division) of the OCD positioned the Development of the IMS of the Project (Project Title: “OCD-JICA Information Management System”) as one of main projects on the ICT and participated in the Project as C/P.

The summary of statuses of activities described above is enumerated in the table shown below.

Table 2.4.4 Current Statuses of Projects being implemented by the OCD regarding Information and Communication Technology

Name of Project	Description	Status
Emergency Radio Communication Systems Project	Augmentation of Communication utilizing Internet Connection and Radio Wave between OCD-CO and OCD-ROs with related agencies	Under development
NDRRMC/OCD CEIS Network Project		
Enhancement of Regional DRRM Center’s Radio Communication Systems Project		
National Public Warning System through Cell Broadcast (Smart, Globe, Sun)	Cell Broadcast System to be utilized for Early Warning	RA10639 was enacted. IRR Final Draft Completed Implementation is under Consideration
OCD-Smart info Board System	Dissemination of Information on DRRM through SMS/Text Blast	Currently-operated in the OCD-CO and most of the ROs
Project DINA	Education and Advocacy Activities on the DRRM, utilizing the web and ICT system	Transfer of duty from CEIS to PAO In Operation by PAO
IBM Intelligent Operation Center (IOC)	Establishment of the EOC in the DOST-ICTO	The OCD was involved at the initial stage and is not involved now.
NDRRM Fund Online Applicant System	Application process online for NDRRMF of NGAs and LGUs	Not started yet. (DBM shall take action first)
Philippine Geoportal System	Making shared use of Electrical Maps among NGAs	NAMRIA is taking initiative. In practice.
Project “BATINGAW”	Smart Phone Application for Advocacy, Education and Communication Tools on DRRM	In Operation by SMART

Name of Project	Description	Status
NDRRMC Operations Center Construction Project	Construction of New Operations Center Building nearby OCD Building	Under exam by DPWH for qualification of Construction, Start construction in March/April
International Joint Program for Resilient ICT System by DOST and MIC (Japan)	Introduction and Promotion of EWBS and other ICT systems that can be utilized for DRRM	Terminate in March, 2015 Pilot EWBS system installed in NDRRMOC

Source: DRRM-CEP Team

### 3) Augmentation Plan for Equipment and Facilities of Disaster Response by the OCD

The OCD has augmented national preparedness capacity for response activities since typhoon Yolanda. At present, the OCD has planned and started the construction of warehouses and procurement of goods and equipment in collaboration with several foreign agencies, such as the Spanish Government and WFP. The outlines of the plan are shown in the table shown below.

Table 2.4.5 Current Augmentation Plan of Facilities and Equipment for Disaster Response by the OCD

Item	Description
Location of Warehouses	Disposition at Luzon (Clerk), Visayas (Cebu or Panay) and Mindanao (Gen. Santos)
Equipment being deployed	Rescue Boats, Chainsaws, Submerged Pumps, Handy Radios, Concrete Demolition Hammers, Generators, Tents, Mobile Water Treatments, Other SAR Facilities
Project Budget	Spanish Government and WFP (Approx. 10 mil. USD in total)

Source: DRRM-CEP Team

### (2) Study on Personnel of the OCD based on the development of the NDRP and Operations Manual

Through activities [12]: Preparation of National Disaster Response Plan (NDRP) for Selected Disasters and [13]: Preparation of Operation Manual(s) for Selected Prioritized Area(s), the JICA experts discussed improvement ways overcoming issues for organizational structure and personnel capacity of OCD with C/P, staff of OCD belonging to other divisions or regional offices, and officers/staff of the NDRRMC member agencies. In addition, required personnel, facilities, and equipment for the OCD in terms of information management have been discussed in the activities of [14]: Development of an Information Management System required for Priority Areas of Operation.

The Team recognized that the number of required staff and quality of equipment would have many alternative ways to achieve the target. Therefore, the Team discussed how much/many the additional number of staff and equipment will be minimally required.

As a result, the Team confirmed that OCD should augment its personnel and facilities at minimum in terms of operational issues.

- ♦ The handling of the “Total Coordination of National Disaster Response Operations” and “Hazard/Risk Assessments at each disaster phase” are also mainly shouldered by four divisions mentioned above, namely the Operations Division and NDRRMS, the Operations Center, the Logistic Division, and the CEIS Division. In this connection, the number of staff of these four (4) divisions is quite insufficient and should be increased immediately. The number of staff of

OCD-CO, in particular the NDRRMS and Operations Division, the Logistics Service, and the CEIS Division should be increased, taking into consideration roles and responsibilities during disaster response operations.

Table 2.4.6 Personnel and Equipment to be augmented for equitably operating and maintaining the IMS in the OCD

Item	Additional Number recommended	Reasons/Background
Personnel	• GIS Engineer: at least 1	Speed up of Tasks of the OCD (Map production, etc.)
	• Server Engineer: at least 1	Increase IMS Operation Rates Development New DB
Facility/Equipment	• Back-up Server	To sustain/increase Operation Rate of the IMS

Source: DRRM-CEP Team

- ♦ The separation of the Operations Division and the Operations Center may result in a miscommunication and delay of information and decision-making. The integration of the operations division and operation center shall be taken into due consideration.
- ♦ The total number of staff of the OCD-ROs has gradually increased from 120 (regular staff) as of March 2012 to 183 as of December 2014. However, staff members of the OCD-RO currently number 9 or 10. This means that most of the OCD-ROs cannot manage to coordinate, communicate, and collaborate on disaster response operations with related organizations independently. These circumstances incur attrition to the staff of the OCD-CO. The capacity increments of the OCD-ROs in terms of personnel and equipment on information management are also imperative.

The proposed OSSP and capacity augmentation plans of the OCD are sufficiently covered with the extent of the recommendations itemized above that the Team confirmed in terms of disaster response and information management.

Table shown on next page summarize current statuses, future augmentation plans and recommendations by the Project.



Table 2.4.7 Personnel and Equipment to be augmented for equitably operating and maintaining the IMS in the OCD

Item	Current Status	Future Augmentation Plans		Recommendations (Team discussed)	Evaluation
Personnel		Name of Plan : OSSP 2014			
Total No. of OCD Staff	301 Staff	1,501	* Increase in a phased manner by 2018.  * Rename as ICTS  * New Organization Chart based on OSSP is shown in Figure 2.4.3.	-	
Central Office	117 Staff	361		-	
Operations	29 Staff in Total Operations Division : 10 Operations Center: 10 NDRRMS: 9	67		Separation of OpCen and Opns Div. may result in a miscomm. and delay. Manpower should be increased (2~5 personnel).	Integration of Divisions for Operations satisfies the recommendation by the Project.
Logistic	2 Staff	27		Manpower should be increased (2~5 personnel).	Increasing Staff by OSSP satisfies the recommendation by the Project
CEIS	5 Staff	39		Additional Number recommended • GIS Engineer: at least 1 • GIS Engineer: at least 1	Increasing Staff by OSSP (from 5 to 39 Staff) satisfies the recommendation by the Project
Planning	6 Staff	35		-	-
Education /Training	12 Staff	27		-	-
Human Resource D.	9 Staff	34		-	-
Regional Offices	183 Staff	1,048	Manpower should be increased to conduct adequate operations.	Increasing staff by six-fold satisfies the recommendation.	
Facilities/Equipment / System					
for Disaster Response	Equipped minimum required response facilities (Lifejacket, Boa, etc.)	New Warehouses in Luzon , Visayas , Mindanao for disaster response operations Approx. USD 10 mil. by Spanish Gov./WFP		-	-
IMS	System in Operation currently • Emergency Radio Comm. Systems • NDRRMC/OCD CEIS Network • RDRRMC Radio Comm. Systems • OCD-Smart info Board System • Project DINA • Project "BATINGAW"	Planned Programs / Projects • National Public Warning System through Cell Broadcast (Smart, Globe, Sun) • NDRRM Fund Online Applicant System • Project for New NDRRMOC • Study on DRRM ICT by (DOST-MIC)		Systems developed in the Project ✓ Management Module ✓ Web-GIS Module ✓ Emergency Responders Module ✓ Disaster Incident Module ✓ Historical Disaster Module ✓ E&T DB ✓ LDRRMP/O Monitoring DB	Back-up Server to sustain Operation Rate of the IMS is recommended in the Project.

## 【12】 Preparation of the National Disaster Response Plan (NDRP) for Selected Disasters

The development of the NDRP (National Disaster Response Plan) and the OCD Operations Manual for Response has been selected as main activities for output 2 (Operation Component) through this Activity 【12】 . Basically, the development of the NDRP was chosen, taking into consideration the following points:

- ◆ Urgency/General Versatility: It should have an urgent need of standardization and a high degree of general versatility,
- ◆ Form of OCD Involvement: It should be a field in which the OCD can be proactively involved and a field that is related to the OCD Regional Offices,
- ◆ Involvement of Multiple Agencies: It should be a field where multiple agencies (central government or regional government) are involved considering the goal of enhancing the coordination capacity of the OCD, and
- ◆ Field related to Information Management: It should be a field that includes information management

Taking into consideration the criteria mentioned above, the establishment of the National Disaster Response Plan (NDRP) has been selected through the small C/P meetings with staff of the Operations Division for the following four (4) reasons:

- ✓ The NDRP is the prime plan for response activities. Therefore, strictly speaking, other lower plans, such as regional and LGU operational/contingency plans as well as manuals related to operations cannot be finalized prior to the completion of the NDRP,
- ✓ The development of the NDRP has been selected as one of priority actions in the NDRRMP launched in October 2012. Therefore, the preparation of the NDRP is one of the most urgent tasks for the OCD and DSWD co-chairing national response activities,
- ✓ Stipulated roles and responsibilities in response activities involve the actions by all released organizations, and
- ✓ Activities of improvement for information management in the OCD have a basis if the augmentation of the information management system is required by the NDRP to be prepared.

Based on the confirmations, the Team has commenced the development of the NDRP as a significant activity in the Operations Component.

In the NDRP, the roles and responsibilities of each related agency are described with respect to each disaster in detail. These concepts referred to a response plan and/or framework developed by other states, such as Japan and the U.S. In the Project, the NDRP for types of disasters, namely “Hydro-meteorological Disasters” and “Earthquakes and Tsunamis” has been developed. The progress and/or achievements of this work are summarized as follows:

## (1) Development and Approval of the NDRP for Hydro-Meteorological Disasters

The development of the NDRP for Hydro-meteorological Disasters commenced in September 2012. At the beginning point of the development, the Team started the discussion of the following topics:

- ◆ Contents to be included in the NDRP based on the comparative considerations of the national response systems of other countries, such as Japan, the U.S., etc.
- ◆ Confirmation of other and/or old policies, frameworks, EOs, and AOs related to the Philippine DRRM System, especially response operations system.

Actual development of the NDRP was carried out through workshops and writeshops involving related agencies, such as the DSWD, DILG, AFP, PNP, UNOCHA and other focal organizations. In addition, the Team directly reflected the lessons learned from disasters, namely typhoon Pablo in 2012 and typhoon Yolanda in 2013 on the NDRP. The draft of NDRP for Hydro-meteorological disasters was presented to the NDRRMC-TMG in January 2014 and was revised based on the comments by the NDRRMC-TMG through small meetings by the Team (JICA experts and C/P).

The main activities for the development of the NDRP for Hydro-meteorological Disasters including focal meetings and workshops are tabulated in Table 2.4.8 shown below:

Table 2.4.8 Focal Activities for the Development of the NDRP for Hydro-meteorological Disasters

Date	Activities	Venue	Purposes
Jun. 14	Small Meetings with Operations Div.	Operations Div.	Recap of 1 <sup>st</sup> Year Activities
Jun. 19	Small Meetings with IT Section	NDRRMC-OpCen	Spec. for Equipment for the IMS
Jun. 21	Kick-Off Meeting	NDRRMC-OpCen	Approval of Activities in 2 <sup>nd</sup> Year
Jun. 24	Meeting for Operations Component	CDA Conference Room	Presentation and Discussion about the NDRP and IMS with Opns Div. and IT-Sec
Jul. 04	Mini-Workshop	OCD	Developing the NDRP
Jun. 25, 2013	Meeting with DSWD	PSB, DSWD	Coordination between the OCD and DSWD for developing the NDRP
Jul. 11, 2013	Mini-Workshop	OCD	Developing the NDRP
Jul. 18, 2013	Mini-Workshop	OCD	Camp Management in Developing the NDRP
Aug. 13, 2013	Mini-Workshop for Food and NFIs	CDA Conference Room	Roles & Responsibilities for Food and NFIs Cluster
Aug. 14, 2013	Meeting with DepEd	CDA Conference Room	Roles & Responsibilities for Education Cluster
Aug. 27-28, 2013	Mini-Workshop for Logistics and Communication	AGFO Café	Roles & Responsibilities for Logistics and Communication Cluster
Sep. 2, 2013	Meeting with DepEd	OCD	Communication Protocol for Education Cluster
Sep. 16-18, 2013	Three-Day Workshop for Finalizing the NDRP for Hydro-Meteorological Disasters	Punta de Fabian Resort, Baras, Rizal	To finalize and consolidate the concepts, structure, and contents of the Draft NDRP for Hydro-Meteorological Disasters
Nov. 13-14, 2013	Site Visit at Tacloban City	Tacloban, Palo, Tanauan	Confirmation of affected area conditions and operation activities
Nov. 20-22, 2013	Site Visit at Cebu Airport	Cebu Airport	Validation and collection of actual response activities
Nov. 25, 2013	Knowledge Sharing Meeting	OCD Opns Division	Sharing of knowledge of actual operation in Tacloban City

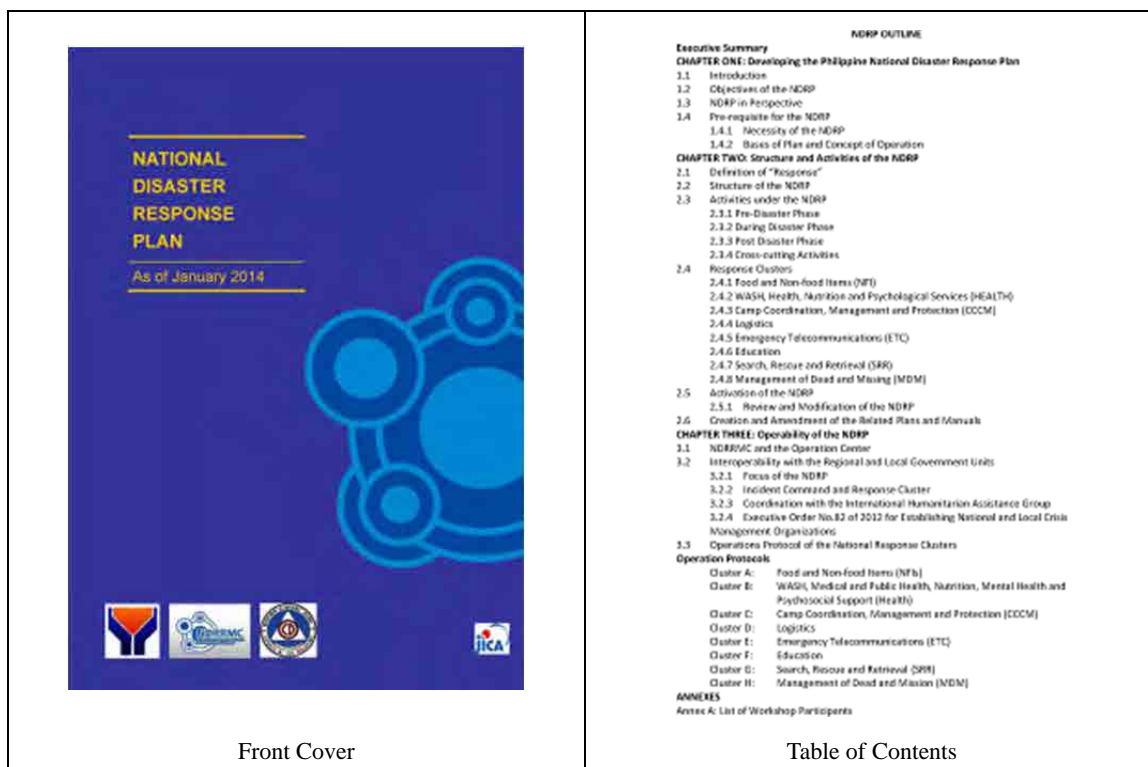
Date	Activities	Venue	Purposes
Nov. 28, 2103	NDRRMC-TMG Logistics Meeting	NDRRMC Conference Room	Improvement and review of logistical activities in the typhoon Yolanda response
Nov. 29, 2103	Integration of the different Disaster Management Application Software	NDRRMC Conference Room	Improvement and review of information activities in the typhoon Yolanda response
Dec. 17, 2013	Meeting with the DOH	DOH	Revision of draft NDRP
Dec. 23, 2013	NDRP Meeting with the DSWD, DILG, PNP and BFP	OCD	Collection of lessons learned from STY Yolanda for improving the draft NDRP
Dec. 27-28, 2013	OCD Senior Leaders' Conference	Richmond Hotel	Presentation of the draft NDRP to RDs of the OCD
Jan. 14, 2014	Meeting with DepEd	DepEd	Review of the NDRP
Jan. 16, 2014	TMG-NDRRMC	NDRRMC Conference	Presentation of the draft NDRP formally to the TMG
Jan. 23-24, 2014	Meeting for the Response Cluster	AGFO Cafe	Finalization of the draft NDRP
Jan. 29, 2014	Meeting with the DILG	20 <sup>th</sup> Floor, DILG	Discussion of the NDRP

Source: DRRM-CEP Team



Photo 2.4.1 Three Day Writeshop for the Development of the NDRP (Sept.16-18, 2013)

The NDRP for Hydro-meteorological Disasters developed by the Team and Focal NDRRMC Members was approved by the NDRRMC on June 11, 2014. In the NDRP approved “Cluster Approach System,” with basic concepts described in the previous Philippine Disaster Response System (Calamity and Disaster Preparedness Plan, NDCC (1988)) and applicable national response frameworks of other countries, such as Japan’s Basic DRM Plan and the U.S. Disaster Response Framework, etc. are considered.



Source: NDRP / DRRM-CEP Team

Figure 2.4.5 Front piece and Table of Contents of the approved NDRP

Table 2.4.9 Clusters specified in the approved NDRP for Hydro-meteorological Disasters

CLUSTER	Leading Agency
Food and NFIs	DSWD
Camp/IDP Management, Emergency Shelter and Protection	DSWD
WASH, Health, Nutrition, and Psychosocial Services	DOH
Logistics	OCD
Emergency Telecommunication	OCD
Education	DepEd
MDM	DILG
SRR	AFP

Source: NDRP / DRRM-CEP Team

At present, the approved NDRP for the Hydro-Meteorological Disaster (PDF) can be downloaded through the NDRRMC Web-site together with RA 10121 and the NDRRMP.

<http://www.ndrrmc.gov.ph/> or

[http://www.ndrrmc.gov.ph/attachments/article/1334/NDRP\\_Hydro\\_Meteorological\\_Hazards\\_as\\_of\\_2014.pdf](http://www.ndrrmc.gov.ph/attachments/article/1334/NDRP_Hydro_Meteorological_Hazards_as_of_2014.pdf)

(2) **Development of the NDRP for Earthquakes and Tsunamis (Refer to Activities [34] and [35] for this activity)**

In third year of the Project, after the approval of the NDRP for Hydro-Meteorological Disasters, the Teams started developing the NDRP for Earthquakes and Tsunamis in parallel with Activities [34]: Implementation of Exercises based on NDRP and Operation Manual (Draft) with IMS and [35]: Revision of NDRP/Operation Manuals. The OCD C/P with the DSWD has undertaken these activities.

The main activities for these activities are summarized in Table 2.4.10 below:

Table 2.4.10 Summary of Activities regarding the Development of the NDRP for Earthquakes and Tsunamis

No.	Date	Activities	Venue	Purposes
1	May 16, 2014	Meeting with DSWD (OCD and Experts)	OCD	Approach for Preparing the NDRP for Earthquakes and Tsunamis
2	May 28, 2014	Meeting with DSWD (OCD and Experts)	DSWD	To incorporate Sec. Dinky's revisions into the NDRP, To consolidate concepts for SIMEX
3	May 29, 2014	NDRRMC-TMG	NDRRMC	To finalize the NDRP, To show the concepts of SIMEX to NDRRMC Members
4	Aug. 29	Support of W/S for IHR Operational Guidelines	DFA	Support to develop IHR Operational Guidelines
5	Sept. 01	Meeting with PHIVOLCS	PHIVOLCS	Present in a Workshop for the NDRP
6	Sept. 03	Small Meeting with PNP	OCD Opns. Div.	Finalization of Protocol for Law & Order
7	Sept. 30-29	Workshop for the NDRP for Earthquakes and Tsunamis	La Breza Hotel	Development of the NDRP for Earthquakes and Tsunamis
8	Sept. 30-Oct. 01	Workshop for the NDRP for Earthquakes and Tsunamis	La Breza Hotel	Development of the NDRP for Earthquakes and Tsunamis
9	Oct. 22-24	3-day Workshop for the NDRP for Earthquakes and Tsunamis	La Breza Hotel	Finalization of the NDRP for Earthquakes and Tsunamis

Source: DRRM-CEP Team

As a result, the NDRP for Earthquakes and Tsunamis (Draft) was completed in November 2014. The concepts adopted in the development are as follows:

- ◆ Integration/Generalizing Chapter 1 ~ 3 with the NDRP for Hydro-meteorological disasters and Differentiation of Operational Protocols with respect to each part of Hydro-meteorological Disasters and Earthquakes & Tsunamis
- ◆ Based on the lessons learned from typhoon Yolanda, the number of clusters applied for response operations will be increased from 8 to 12
- ◆ Adding New Concepts for the appropriate disaster response system, namely PDRA (Pre-disaster Risk Assessment) and Activation of Team NDRRMC or RDT (Rapid Deployment Team)

The revised cluster concepts are shown in Table 2.4.11 below:

Table 2.4.11 Twelve (12) Cluster newly defined for the NDRP

CLUSTER	Leading Agency
Food and NFIs	DSWD
Camp/IDP Management, Emergency Shelter and Protection	DSWD
WASH, Health, Nutrition, and Psychosocial Services	DOH
Logistics	OCD
Emergency Telecommunication	OCD
Education	DepEd
MDM	DILG
SRR	AFP
IHR (International Humanitarian Relations)	DFA
IDP Protection	DSWD
Livelihood	DTI
Law & Order	PNP

Source: NDRP / DRRM-CEP Team

Furthermore, several charts and illustrations to easily understand the concepts, framework, and flow of operations on national disaster response system will be added to the NDRP.

This NDRP for Earthquakes and Tsunamis, as well as revised operational protocols for Hydro-Meteorological Disasters, will be approved by the NDRRMC-TMG meetings on February 11 and 13, 2015.

[13] Preparation of Operation Manual(s) for Selected Prioritized Area(s)

**(1) Title, Target, and Concept of Operations Manual to be developed in the Project**

After the development of the NDRP for the Hydro-Meteorological Disaster, the discussions on the operation manual for the OCD based on the NDRP commenced. The expert team and C/P involving the CDA (currently former CDA) fixed and confirmed the title and targets to be standardized for the manual in development.

- Title: OCD Operations Manual for Response
- Targets (Areas to be covered by the Manual): Response Activities based on the NDRP including IMS

The actual development of the Manual started in September 2014 involving following the divisions and offices:

- ◆ OCD-CO: Operations Division, NDRRMOC (OpCen) and Logistic Division,
- ◆ Selected OCD-ROs: Region II, VII and XI, and
- ◆ OCD-CO: ICTS (former CEIS) for IMS

**(2) Development Activities**

Development activities have been implemented as shown in Table 2.4.12 below.

Table 2.4.12 Focal Discussions and Meetings held for Developing the OCD Operations Manual for Response

Date	Activities	Venue	Purposes
Oct. 24, 2013	Meeting with the CDA on the Operations Manual and draft NDRP	CDA Conference Room	Explanation of Activities in OpCens Component to CDA
Dec.19, 2013	Internal Meeting	OCD	Scheduling in January 2014 and procedure for preparation of the Manual
Jan. 15, 2014	Meeting for the Operations Manual	CDA Conference Room	Discussion for preparing the Operations Manual
Jan. 22, 2014	Workshop at RO-XI	OCD-RO-XI	Preparing the draft OCD Operations Manual
Feb. 10-12, 2014	Workshop at RO-VII	Cebu City	Preparing the draft OCD Operations Manual
Feb. 18, 2014	Workshop at RO-II	Tuguegarao City	Preparing the draft OCD Operations Manual
Sep. 21, 2014	Meeting with the Chief of NDRRMOC	NDRRMC-OpCen	Integration of the Operations Manual and OpCen Manual
Feb. 02, 2015	Mon-Com of OCD	CDA Conference Room	Presentation of the OCD Operations Manual for Response

Source: DRRM-CEP Team

As tabulated in Table 2.4.12 above, the Team started discussing concepts for developing the Manual with the CDA on October 24, 2013. In the meeting, the CDA accepted the concepts and approaches of the Manual. The CDA stressed the following points regarding the development of the OCD Operations Manual for Response, to wit:

- ◆ Basic concepts of the Manual for Response shall be followed by the National Disaster Response System,
- ◆ The development of the Manual for Response is not an end but only the first step in developing a comprehensive OCD Operations Manual.

The Team actually started the development of the Manual after the concurrence of the CDA. As a next step, the Team reviewed the OSSP and confirmed actual work conducted by divisions/offices of the OCD-CO through interviews, hearings, and small workshops utilizing formats and templates shown below so that several inconsistent and/or vague job demarcations and distributions were brought out.

<p><b>Standard Reporting Formats to be attached in Operation Manual</b></p> <ul style="list-style-type: none"> <li>• Inspection of existing format and Creating a standard format             <ul style="list-style-type: none"> <li>– Re-check the style or who to use for what</li> <li>– Create a standard format according to the scene you want to use (Managed with the form number)</li> </ul> </li> <li>• Organize the format you want to use depending on the type of disaster</li> </ul> <table border="1"> <thead> <tr> <th></th> <th>Hydro-M</th> <th>Seismic</th> <th>Tsunami</th> <th>Volcanic</th> <th>***</th> </tr> </thead> <tbody> <tr> <td>FormA-1</td> <td>○</td> <td>○</td> <td>○</td> <td>–</td> <td>–</td> </tr> <tr> <td>FormA-2</td> <td>○</td> <td>○</td> <td>○</td> <td>–</td> <td>–</td> </tr> <tr> <td>FormA-3</td> <td>○</td> <td>–</td> <td>–</td> <td>–</td> <td>–</td> </tr> <tr> <td>FormB-1</td> <td>–</td> <td>○</td> <td>–</td> <td>–</td> <td>○</td> </tr> <tr> <td>***</td> <td>–</td> <td>–</td> <td>–</td> <td>–</td> <td>○</td> </tr> </tbody> </table> <p><i>I think whether it is the examination of the report in the style towards the IMS. It is necessary to organize and easy to use in the manual and its contents.</i></p> <p>Disaster Risk Reduction and Management Capacity Enhancement Project (DRRM-CEP)</p> <p>Arrangement of Standard Reporting Formats</p>		Hydro-M	Seismic	Tsunami	Volcanic	***	FormA-1	○	○	○	–	–	FormA-2	○	○	○	–	–	FormA-3	○	–	–	–	–	FormB-1	–	○	–	–	○	***	–	–	–	–	○	<p><b>Concept of OPNS Manuals</b></p> <ul style="list-style-type: none"> <li>• The Goals and Objectives?             <ul style="list-style-type: none"> <li>– Standardization of disaster response, to realize accurate and faster disaster response.</li> <li>– Clarify of Each Section what to do, when to do, how to do.</li> </ul> </li> <li>• What is a Problem?             <ul style="list-style-type: none"> <li>– Matching with the operation as defined in NDRP</li> <li>– Manual Amendment in light of Typhoon Yolanda</li> </ul> </li> <li>• Who and When to Use?             <ul style="list-style-type: none"> <li>– OCD staff will use in during disaster</li> </ul> </li> </ul> <p>Concept of Preparation for Operations Manual</p>
	Hydro-M	Seismic	Tsunami	Volcanic	***																																
FormA-1	○	○	○	–	–																																
FormA-2	○	○	○	–	–																																
FormA-3	○	–	–	–	–																																
FormB-1	–	○	–	–	○																																
***	–	–	–	–	○																																
<p><b>B. How do you perform you function un the different disaster phases?</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Name of Office</th> <th colspan="2">Functions Performed</th> <th colspan="2">Issues Met in Operations</th> <th colspan="2">Recommendations</th> </tr> <tr> <th>Pre-Yolanda</th> <th>Yolanda</th> <th>Pre-Yolanda</th> <th>Yolanda</th> <th>Pre-Yolanda</th> <th>Yolanda</th> </tr> </thead> <tbody> <tr> <td>Pre-Disaster Phase</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>During Disaster Phase</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Post-Disaster Phase</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Matrix utilized in Workshop</p>	Name of Office	Functions Performed		Issues Met in Operations		Recommendations		Pre-Yolanda	Yolanda	Pre-Yolanda	Yolanda	Pre-Yolanda	Yolanda	Pre-Disaster Phase							During Disaster Phase							Post-Disaster Phase							<p><b>Workshop Procedure</b></p> <ol style="list-style-type: none"> <li>1. Please provide your answer in the post-its and put in the manila paper.</li> <li>2. Please answer the following.             <ul style="list-style-type: none"> <li>A. What is the core function of your office in relation to response operations during disaster? Validate the statements in the draft OSSP</li> <li>B. How do you perform the functions in the different disaster phases                 <ul style="list-style-type: none"> <li>a) Identify the functions done, the issues met during operations and the recommendations to solve these issues.</li> </ul> </li> <li>C. Illustrate the coordination flow you follow during response operations between your office and other offices in the OCD system before Yolanda and Yolanda events</li> <li>D. Illustrate your recommended coordination system for response</li> </ul> </li> </ol>		
Name of Office		Functions Performed		Issues Met in Operations		Recommendations																															
	Pre-Yolanda	Yolanda	Pre-Yolanda	Yolanda	Pre-Yolanda	Yolanda																															
Pre-Disaster Phase																																					
During Disaster Phase																																					
Post-Disaster Phase																																					

Source: DRRM-CEP Team

Figure 2.4.6 Matrices and Materials for Discussions of the OCD Operations Manual for Response

After the discussions with the OCD-CO, the Team paid a visit at three (3) OCD-ROs, namely Region II, VII and XI, and held a workshop for each OCD-RO in order to grasp the roles and responsibilities of the OCD-RO in case of disaster response operations.





Region-XI (Jan. 30, 2014)

Region-VII (Feb.10, 2014)

Source: DRRM-CEP Team

Photo 2.4.2 Workshop held in Regional OCDs for OCD Operations Manuals for Response

In the third year of the Project, the Team updated the draft Manual in line with the new OSSP approved by the SND and continued to improve the draft Manual.

At the end of 2015, the Team will finalize the OPD Operations Manual for Response.

### (3) Issuance of OCD Memorandum from the CDA regarding Cluster Leading Offices

After the approval of the NDRP for Hydro-meteorological disasters by the NDRRMC, the OCD Memorandum No.587-2014 clarifying leading offices/divisions of clusters and which OCD should take the lead according to the NDRP, was issued by the CDA on August 28, 2014.

In this connection, the basic roles and mandates of the Operations Service (formerly the Operations Division), Logistics Division, and ICT Service (formerly CEIS Division) have been clarified. The following are the contents of the memorandum:

#### Operations Division

- a. Act as the lead office for Response Cluster in disaster response operations in coordination, collaboration, cooperation, and communication with the NDRRMS and DSWD as the Vice-Chairperson for Response.
- b. Assist the Logistics Division and the CEIS Division in the performance of their tasks before, during, and after disaster management operations.
- c. Perform other tasks as directed.

#### Logistics Division

- a. Act as the lead office for the Logistics Cluster.
- b. Provide an efficient and effective logistics coordinating structure among the concerned OCD Offices, member Clusters, and logistics partners that will harmonize the activities of the Logistics Cluster.
- c. Coordinate, monitor, identify, and deploy transportation resources, warehousing, inventories, and tracking of deployed items.
- d. Perform other tasks as directed.

### CEIS Division

- a. Act as the lead office for the Emergency Telecommunication Cluster.
- b. Assist in the strengthening of Information Communications Technology capacity at the national level down to the local level to prepare for, respond to, and recover from the impact of disasters in coordination with concerned OCD offices, member Clusters, and other ICT partners.
- c. Provide timely, resilient, and predictable Information and Communication Technology (ICT) support, in coordination with concerned OCD offices, member Clusters, and other ICT partners to improve:
  - Response and coordination among response organizations
  - Decision making through timely access to critical information
  - Common operational areas for disaster response
  - Common system standards and operating procedures
  - Standards-based architecture for DRRM Operations
  - System architectures for compliance and interoperability
- d. Perform other tasks as directed

#### **(4) Activities for Approval of the OCD Operation Manual for Response**

In parallel with the finalization of the NDRP, the OCD Operation Manual for Response will be submitted to the CDA through several opportunities, such as the OCD Weekly Monitoring Committee or holding a meeting between the CDA and the Operations Support Division. Based on the meeting or committee, the Team aims to obtain approval of the Operations Manual for Response by the CDA during February-March 2015.

Table of Contents of the OCD Operation Manual for Response (Draft) are as follows:

Table 2.4.13 Table of Contents of the OCD Operation Manual for Response (Draft)

<b>Chapter 1: Introduction</b>		1.5.2	Operations
1.1	<b>The Office of Civil Defense</b>	1.6	<b>Response Clusters</b>
1.1.1	Vision	1.6.1	Premises and Background
1.1.2	Mission	1.6.2	Basic Approach
1.2	<b>OCD Operations Manual for Response</b>	1.7	<b>IMS</b>
1.2.1	Objective	<b>Chapter 2: OCD and Response Operation</b>	
1.2.2	OCD and the NDRP	2.1	<b>Alert System</b>
1.2.3	NDRP in Perspective	2.1.1	Alert Levels
1.2.4	Activities under the NDRP	2.1.2	Warning Systems
1.3	<b>Basic Approaches for Disaster Response</b>	2.1.2.1	Hydro-met. Disasters
1.3.1	Pre-Disaster Phase	2.1.2.2	Earthquake and Tsunami
1.3.1.1	Early Warning	2.2	<b>OCD and the NDRRMC</b>
1.3.1.2	Activation of the Response Clusters and Conduct of PDRA	2.2.1	Operation Flow
1.3.1.3	Commencement of Monitoring and Preparation of Resources	2.2.2	Personnel Deployment
1.3.1.4	Activation of EOCs at all levels	2.3	<b>Roles and Responsibilities</b>
1.3.2	During Disaster Phase	2.3.1	Central Office
1.3.2.1	Basic Approaches for Response Operations (Augmentation and Assumption)	2.3.3.1	Offices CDA / CDDA / CDExO
1.3.2.2	Organizing "Team NDRRMC RDT" and Conducting "RDANA"	2.3.3.2	Divisions Operations / Logistics / CEIS / PAO / HRM / Finance Mgt. / NDRRMOC / NDRRMS
1.3.3	Post Disaster Phase	2.3.2	Regional Offices
1.4	<b>Cross-cutting Activities under the NDRP</b>	ANNEXES	
1.4.1	Early Warning	ANNEX-A: SOP of RDANA	
1.4.2	PDRA	ANNEX-B: NDCC MC 5 series of 2007	
1.4.3	RDANA	ANNEX-C: NDCC MC 12 series of 2008	
1.4.4	PDNA	ANNEX-D: NDRRMC MC 23 series of 2014	
1.4.5	Mobilization of Resources	ANNEX-E: PPSWS and Rainfall Warning	
1.4.6	Early Recovery	ANNEX-F: PEIS	
1.5	<b>Earthquake in Metro Manila</b>	ANNEX-G: OCD Checklists	
1.5.1	Scenario	ANNEX-H: IMS Manuals	
		ANNEX-I: NDRRMOC-SOPs	
		ANNEX-J: OCD MC no. 587 series of 2014	
		ANNEX K: OCD Proposed OSSP (as of 2015)	

Source: DRRM-CEP Team

[14] Development of an Information Management System required for Priority Areas of Operation

**(1) Approval of Information Management System (IMS) Development Policy and Plan**

In the early stages of this project, the existing condition of information management for basic operations in the OCD was studied, including the current budgetary conditions and the division of duties of the OCD as one of the activities and works under Activity [11], as well as issues on system requirements and the recommended specifications. And based on the results of this study, the JICA Expert Team and OCD discussed an advancement of information for effective and efficient operations in OCD DRRM activities. The summary of the discussion is shown below.

Since the year 2000, several types of information management systems for supporting DRRM activities have been introduced to the OCD, including EMIS as the database of resources for disasters, SAHANA as the database for collection of status in affected area(s) and needs for rescue and relief during disasters, and Calamidat.ph as the database of historical disasters. But in recent years, those systems were not used effectively for several reasons, including issues and difficulties in terms of technique, O&M for the expansion of functions, and human resources.

However, the continuous operation of those systems was imperative for the OCD to conduct appropriate coordination and operations for pre-, during, and post-disaster phases. And for securing the sustainability of system operations in the OCD, it was necessary to integrate the existing database and to expand its system tools into easier, more economical, and better integrated software utilizing GIS techniques.

As a result, the introduction and/or restructuring of the IMS are indispensable as one of the prioritized activities of the OCD-CO, and it has been confirmed that the activities of the OCD-CO for the IMS shall be supported by the DRRM-CEP.

In the 2nd Year, the reconstruction of the database and expansion of the IMS utilized GIS techniques commenced on the basis of the work items of the DRRM-CEP agreed on in the Kick-off Meeting held on June 21, 2013.

As the first step of the IMS instruction, the concepts for development of the IMS under the DRRM-CEP were reconfirmed through several meetings held between the OCD and JICA Expert Team. The overall structure of the IMS is shown in Figure 2.4.7. The detailed concepts of the IMS are below:

- ◆ The three main parts of the IMS, namely, “Emergency Responders Database,” “Disaster Incidents Database,” and “Historical Disaster Database,” are reconstructed based on the existing database. And five modules, “Management Module,” “Web-GIS Module,” “Emergency Responder Module,” “Disaster Incident Module,” and “Historical Disaster Module,” are created for the management and utilization of above three databases.
- ◆ For the IMS development and operations, the server computer is installed in the OCD by the DRRM-CEP.

- ◆ The IMS interfaces with GIS for visualization of items of the database and are created under an open source OS taking into consideration an easier environment of system development and user-friendly modules of the system.

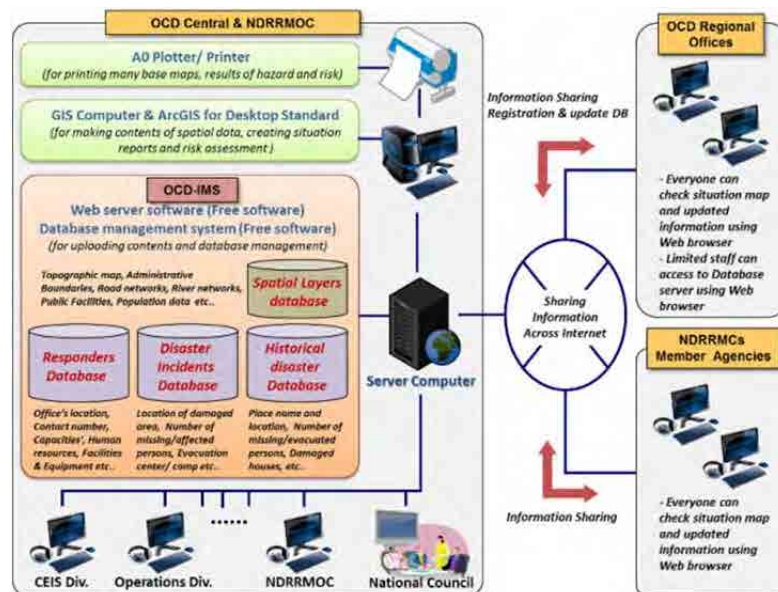


Figure 2.4.7 The conceptual figure of the developed IMS in the DRRM-CEP

## (2) IMS Instruction and Utilization

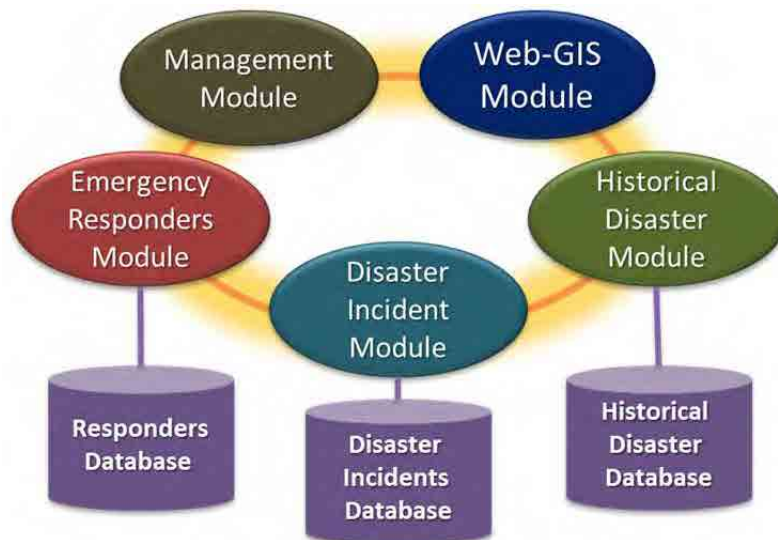
The steps of instruction and utilization of the IMS in the DRRM-CEP are divided as below:

- ◆ Detailed design of the IMS and database
- ◆ Procurement and installation of necessary equipment and software
- ◆ IMS construction
- ◆ Capacity building of the OCD staff for IMS operation and GIS utilization including implementation of related drills
- ◆ Actual practices of the IMS operation and GIS utilization through disaster response

The breakdown of each step for instruction and utilization of IMS are shown below:

### Detailed design of the IMS and database

As mentioned above, the IMS consists of five modules: “Management,” “Web-GIS,” “Emergency Responders,” “Disaster Incident,” and “Historical Disaster” (Figure 2.4.8).



Source: JICA Expert Team

Figure 2.4.8 Overview of the IMS and database

a. Management Module

The Management Module takes a role as user management and IMS maintenance management. CEIS Division is in charge of this module operation. The main roles of this module are the following;

- ◆ Register and save the user's ID and Password,
- ◆ Set permission for IMS users to access and utilize each module and database,
- ◆ Manage the web server, based on server software and the database management system
- ◆ Change and expand all of OCD-IMS tools, GUI, and database structure

b. Web-GIS Module

The Web-GIS Module takes a role as visualization of information in the database (sample screen shots of Web-GIS sites are shown in Figure 2.4.9.) All IMS users can view map layers through the internet. Users can change displayed map layers according to personal preference. The CEIS Division is also in charge of this module operation. The main roles of this module are the following:

- ◆ Display responders' locations hierarchically (e.g., locations of DRRM offices) managed by the Emergency Responders module.
- ◆ Display disaster incident maps hierarchically (e.g., a distribution of affected population based on an administrative boundary) managed by the Disaster Incident Module.
- ◆ Display historical disaster maps hierarchically (e.g., a distribution of past disasters affected by population based on an administrative boundary) managed by the Historical disaster Module.
- ◆ Show attribute information of responders and disaster incidents by clicking on an icon of each feature (e.g., when one clicks an icon of the DRRM office, a pop-up shows an address, name of representative, telephone number, the number of staff, etc.).

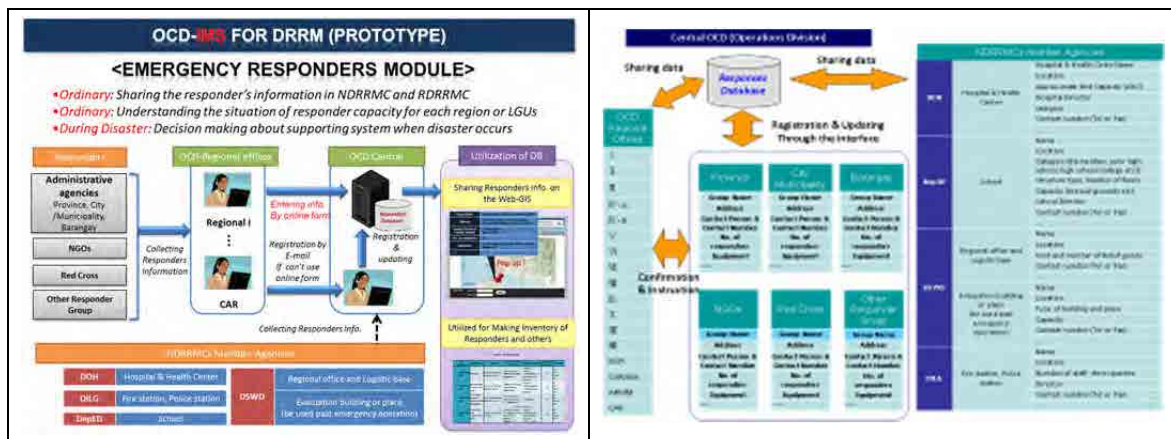


Source: JICA Expert Team

Figure 2.4.9 Sample screen shots of Web-GIS sites

c. Emergency Responder Module

The Emergency Responders Module takes a role as management of responders' information including a contact number, a contact person, human resources, owned equipment for DRRM activities in the NDRRMC, RDRRMC, and related organizations. The concepts of this module's operation are shown in Figure 2.4.10.



Source: JICA Expert Team

Figure 2.4.10 The concepts of Emergency Responder Module operation

The Operations Division is in charge of this module's operation and will collaborate closely with OCD regional offices to gather, register, and update responder information. The main roles of this module are the following:

- ♦ Register and update responder information using an online data input form or CSV file import tool.
- ♦ Show each responder's location and attribute information on Web-GIS to be utilized for one of the decision-making tools during a disaster.
- ♦ Show an inventory of selected responder information based on type of responder or targeted area using a database sorting tool.
- ♦ Export selected responder information using CSV file export tool.
- ♦ Database items of Responders database are shown in Table 2.4.14.

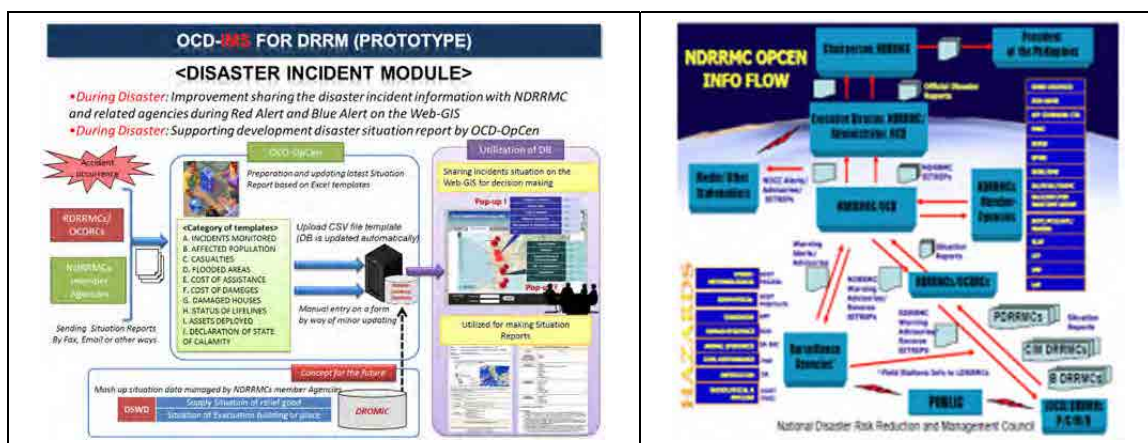
Table 2.4.14 Items and specifications of Responder DB

Database Item	Specification
Name	Name of Office/Organization
Location/Address	Region, Province, City, Municipality, District, Barangay, Street/Road, Building
Contact Person(s)	Name, Position, Cell #, Telephone #, Fax #, Radio Frequency, Email, Website
Specialization/Capability of the Organization	Type of Emergent Tackling, Special Capability
Manpower Composition	Category, Number of Persons, Trainings Attended
Equipment	Type of Equipment, Qty, Description/Specifications, Purpose/Use

Source: JICA Expert Team

d. Disaster Incident Module

The Disaster Incident Module takes the role of sharing ongoing disaster incident information regarding affected populations, number of evacuees, number of damaged houses and other incident items based on the NDRRMC situation report during Red Alerts and Blue Alerts for decision making of disaster response activities. The basic format of table items and data types in databases complies with the specification of the NDRRMC Situation Report’s format. The concepts of this module’s operation are shown in Figure 2.4.11.



Source: NDRRMC and JICA Expert Team

Figure 2.4.11 The concepts of Emergency Responder Module operation

The NDRRMOC is in charge of this module operation. The main roles of this module are the following:

- ◆ Register the latest disaster incident inventories (e.g., affected populations for each city/municipality) after conversion to CSV formats for tagging geocodes of provinces, cities/municipalities or documenting the coordinates of incident detail locations.
- ◆ Import CSV files prepared based on standard CSV template (alias the IMS input form) and SHAPE files created by a GIS operator using a file import tool.
- ◆ Show the latest disaster situation maps on Web-GIS to be utilized for one of the decision-making tools during disasters.

It is possible to import and show the disaster situations which include positional information like the coordinates of an incident’s location and names of provinces and cities/municipalities. The



following database items shown in Table 2.4.15 can be utilized as disaster incident layers on Web-GIS.

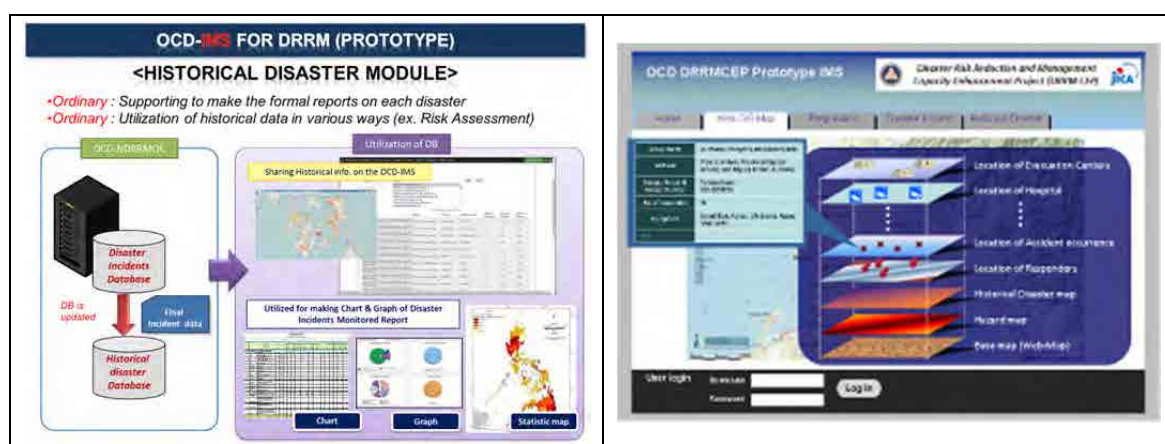
Table 2.4.15 Available database items of Disaster Incident Module

Database Item	Specification
Incidents Monitored	Location, Type of Incident, Description
Affected Population	Location, Number of Affected (Families, Persons), Number of Evacuation Centers, Number of Evacuated (Families, Persons)
Casualties	Location, Type of Casualties (Dead, Injured, Missing), Casualties (Name, Age, Sex, Address, Cause/Date/Remarks)
Cost of Assistance	Location, Cost of Assistance (DSWD, DOH, LGUs, NGOs/Other GO Assistance)
Cost of Damages	Location, Estimated Cost (Roads/Bridges/Other Structures, Agriculture (Crops, Livestock, Fruits/Vegetables), Facilities, Fisheries)
Damaged houses	Location, Damaged Houses (Totally, Partially)
Status of lifelines	Location, Type of Lifelines (Load, Bridge, Power, Water Supply, Communication, Others), Status
Assets Deployed	Agency, Personnel/Vehicles/Sea craft/Miscellaneous Assets/Equipment (Location, Item, Number)
Declaration of State of Calamity	Location, Resolution No., Date

Source: JICA Expert Team

e. Historical Disaster Module

The Historical Disaster Module takes a role as management of all types of historical disaster records which includes an inventory of Calamidat.ph Database. This module is linked with a Disaster Incident Module. After finalizing the number of affected population, the number of casualties, cost of damages and other information, those data are exported in CSV format. After that, this CSV file is uploaded to a historical Disaster Database. The concepts of this module's operation are shown in Figure 2.4.12.



Source: JICA Expert Team

Figure 2.4.12 The concepts of Historical Disaster Module operation

The NDRRMOC is also in charge of this module operation. The main roles of this module are the following:

- ♦ Register and update historical disaster information using a CSV file import tool.

- ◆ Show the sorted historical disaster information, and
- ◆ Export selected historical disaster information using CSV file export tool for formulating the formal reports (e.g., Post Disaster Assessment Report, Disaster Yearbook) and for analyzing the frequency and vulnerability for each area (e.g., Disaster Risk Assessment to prepare a Disaster Management Plan).

Procurement and installation of necessary equipment and software

In the Kick-off Meeting held on June 23, 2013, the list of equipment and software for the IMS was basically approved by OCD and the JICA Expert Team. Through further deliberation among related staff of the OCD and JICA experts, the items shown in Table 2.4.16 were procured for the development of the IMS in the DRRM-CEP on October 17, 2013.

Table 2.4.16 Specifications of Equipment to be procured for OCD IMS under DRRM-CEP

No.	Qty.-Equipment	Detailed Specification agreed on by Both Sides
1	1-Server Computer	Form: Rack 1U, Processor: Intel Xeon 4C, Memory: 8 GB, HDD: 1 TB
2	1-GIS Computer	Form: Desktop, OS: Windows 7/8 (64 bit), Soft: Microsoft Office, Processor: Intel Core i5, Memory: 4 GB, HDD: 1 TB
3	1-A0 Plotter/Printer	Width, 44 inches, Color, Resolution: 1440×720 dpi
4	1-GIS Software	ArcGIS for Desktop Single Use ver. 10.1, ESRI

Source: JICA Expert Team



Source: JICA Expert Team

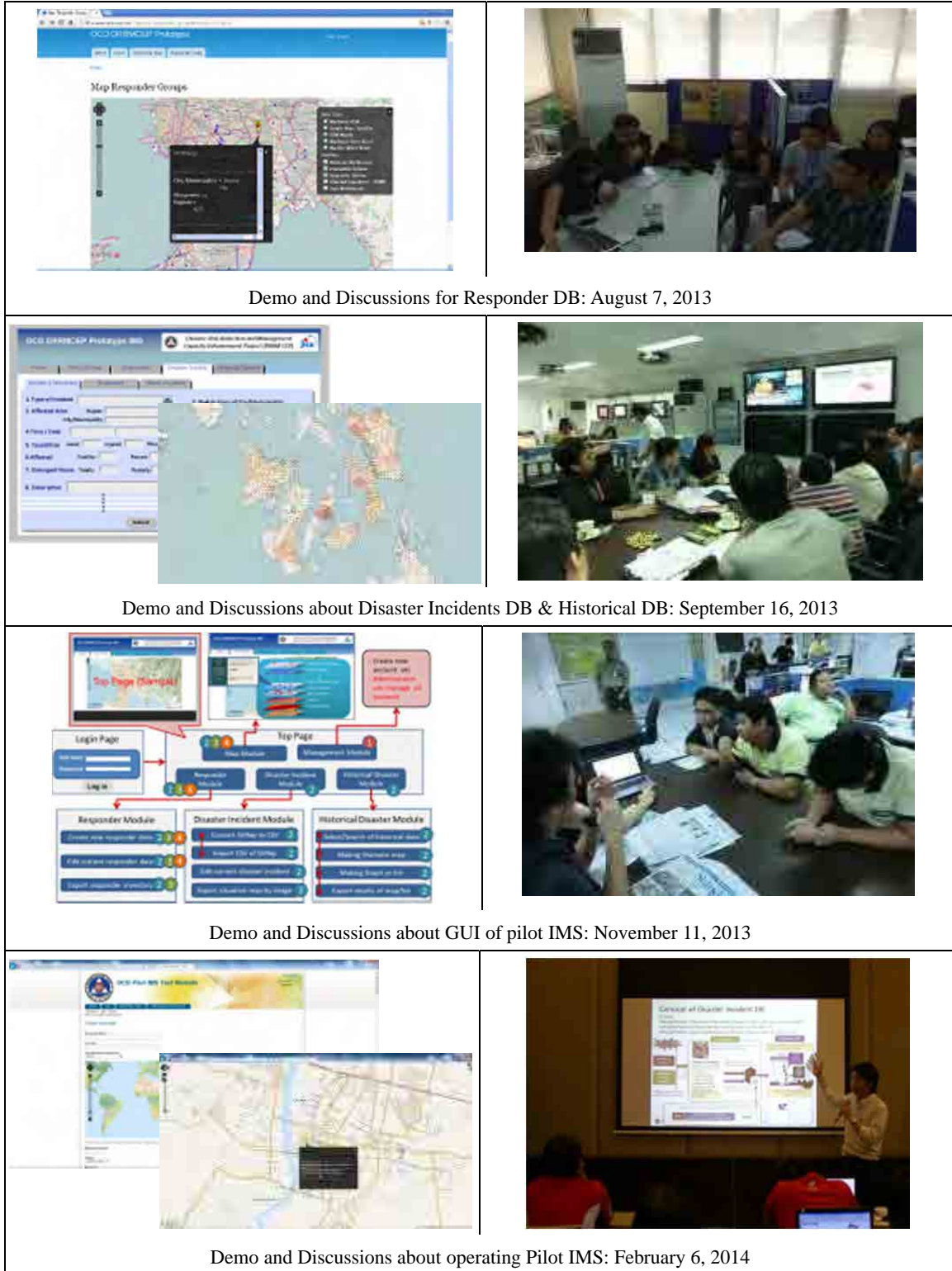
Photo 2.4.3 New Server Computer and Plotter installed in the OCD-Server room of the CEIS Division

IMS construction

The IMS has been constructed through a lot of small discussions with key staff in the CEIS division, Operations Division, and NDRRMOC, who are going to lead the resolution of the IMS operation regarding database structures, GUIs, and operation procedures of each module. In the 2nd year, the Proto-type IMS had been constructed, and improvement polies and procedures of the detail functions of each proto-type module had been discussed with key-staff in the OCD. In the 3rd year, the Proto-type IMS was upgraded based on the above discussions, and each database was expanded

continuously. Especially regarding an expansion of the responder database, the existing text-based responders inventories managed by the OCD Regional offices were gathered by the Operations Division and updated each responder's information in the database after geocoding.

Photo 2.4.4 shows small meetings with key staff in the OCD and sample material for discussions.



Source: JICA Expert Team

Photo 2.4.4 Small meetings with key staff and sample material used for discussions

Capacity building of the OCD staff for IMS operation and GIS utilization including implementation of related drills

For enhancement of the information management capacity in the OCD's ordinary activities, six technical trainings of IMS operations and GIS utilization for OCD staff were conducted in parallel to develop the IMS as shown in Table 2.4.17.

Table 2.4.17 The implementation status of Technical training for IMS operation and GIS utilization

No.	Date	Activities	Venue	Purposes
1	Jul. 17-19, 2013	1 <sup>st</sup> Basic GIS Technique Training	La Breza Hotel	To know basic GIS Techniques to be utilized Disaster Response Activities
2	Feb. 05-06, 2014	2 <sup>nd</sup> Basic GIS Technique Training	La Breza Hotel	To know IMS Utilization
3	Aug. 27 -28, 2014	IMS Training	NDRRMC	IMS/GIS Training for Staff of the OCD Central Office
4	Nov. 05 - 07	Technical Training for IMS/GIS Utilization for Regional OCD Staff-1	La Breza Hotel	Capacity Development Training on IMS and GIS for OCD Regions
5	Nov. 14	National Earthquake Drill	Quezon Circle/ NDRRMC/etc.	Demonstration of the Capabilities of National Disaster Response Agencies
6	Nov. 19-21	Technical Training for IMS/GIS Utilization for Regional OCD Staff-2	Northwinds Hotel, Cebu	Capacity Development Training on IMS and GIS for OCD Regions

Source: JICA Expert Team

Through the lecturing and practices for using GIS software in 1st and 2nd basic GIS technique training held July 17 to 19, 2013 and February 5 to 6, 2014, the participants of each division's staff in OCD Central acquired basic knowledge of GIS, detail processes of creating disaster situation maps based on NDRRMC Situation Reports, and basic analysis methods of disaster risks.

In the IMS operation training held August 27 to 28, 2014 for cultivating IMS administrators and GIS technical instructors in OCD Central, 8 selected staff from the CEIS Division, Operations Division, and NDRRMOC acquired procedures for operating 5 modules in the IMS and the method of creating spatial contents to be uploaded on the Web-GIS.

In the technical trainings for IMS/GIs utilization for the regional OCD staff held in Manila November 5 to 7 and in Cebu November 19 to 21, 2014, for the dissemination of IMS GIS utilization in existing disaster risk reduction and management activities, as well as for expanding and updating a Responder Database, to the regional OCD, 17 regional OCD staff attended 3-day trainings and acquired basic operating skills of the IMS and GIS in accordance with the instruction from trainers of the OCD Central office who had mastered IMS and GIS operations through past trainings.

In the National Earthquake Drill held on November 14, 2014, the situation maps based on the scenario of the tabletop exercise were prepared by trained staff in the OCD central office. And during the actual response activities of typhoon Ruby in December 2014, the situation maps were also prepared by trained staff and shared in the NDRRMC.

As the result of five-time technical trainings and the OJT, the human resources capabilities of the IMS and GIS utilization in the ordinary activities of not only the OCD central office but also the OCD regional office have been cultivated. Additionally, the explanatory materials to be used in trainings have been compiled in manuals for users and administrators.

Table 2.4.18 The results of IMS construction and capacity building of IMS and GIS utilization

Items	Output of DRRM-CER Activities
OCD-IMS Construction	<ul style="list-style-type: none"> <li>• Five types of modules and three types of databases</li> <li>• (OD-IMS has been utilized during actual disaster response activities)</li> </ul>
Capacity building of IMS and GIS utilization	<ul style="list-style-type: none"> <li>• Cultivated technical staff: 7 persons in OCD Central office (CEIS Division, Operations Division, NDRRMOC)</li> <li>• And 17 persons from the OCD Regional offices</li> </ul>
Preparation of Guideline and users manuals for IMS and GIS operation	<ul style="list-style-type: none"> <li>• General Guideline for IMS</li> <li>• IMS management manual for admin</li> <li>• Emergency responders module operation manual</li> <li>• Disaster Incident module operation manual</li> <li>• Historical disaster module operation manual</li> <li>• GIS technical guide for spatial data utilization in OCD activity</li> </ul>

Source: JICA Expert Team

#### Actual practices of IMS operation and GIS utilization through disaster response

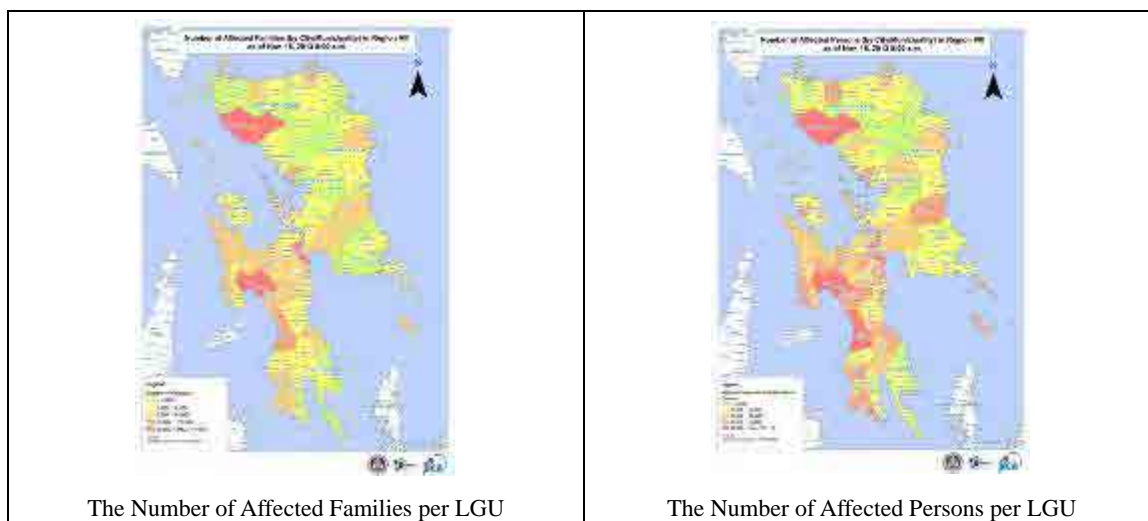
The IMS and GIS operating knowledge and skills in the OCD were enhanced through the actual practices in several past disaster response activities as shown in Table 2.4.19. At the beginning of the IMS and GIS training, the supports from the DRRM-CEP Team had been required, but as the training and OJT goes on, trained COD staff came to be able to create the disaster situation maps by themselves gradually. And through the trial use of IMS in those actual situations, the tools of the prototype system have also been updated and expanded continuously.

Table 2.4.19 The implementation status of actual practices of IMS operation and GIS utilization

No.	Date	Activities	Venue	Purposes
1	Nov. 8-20, 2013	Yolanda Operation	NDRRMC	OJT for IMS
2	July 14-25, 2014	Glenda Operation	NDRRMC	OJT for IMS
3	Sept. 19	Observation of TY Mario Operation	NDRRMC	Team Observation of TY Operations for Confirmation
4	Dec.04- 12, 2014	Supports for typhoon Ruby utilizing IMS	OCD/NDRRMOC	Actual Responses for typhoon Ruby and the OJT of the IMS
5	Dec. 31- Jan. 01, 2015	Supports for typhoon Seniang utilizing IMS	OCD/NDRRMOC	Actual Responses for typhoon Seniang by OCD Staff Alone

Source: JICA Expert Team

For example, the following situation maps of affected populations per LGU (Figure 2.4.13) were created by the NDRRMOC and DRRM-CEP Team to visualize affected situations and to be utilized for decision making in the NDRRMC during the response activity of typhoon Yolanda in November.



Source: JICA Expert Team

Figure 2.4.13 The sample outputs of Disaster situation maps created by the NDRRMOC and DRRM-CEP Team during the response activity of typhoon Yolanda

During the typhoon Ruby disaster response activity December 4 to 12, 2014, CEIS Division and Operations Division created some types of situation maps shown in the figure in the absence of the supports from the DRRM-CEP Team. It means that those actions by themselves are one of the results for capacity building of the IMS and GIS utilization in the OCD staff.

[34] Implementation of Exercises based on the NDRP and Operation Manual (Draft) with IMS

After the completion of the development of the NDRP for Hydro-meteorological Disasters, the exercises of disaster response operations based on the draft NDRP and the Operation Manual in parallel with the development of the NDRP for Earthquakes and Tsunamis was conducted as shown in Table 2.4.20. The preparation started in May and the exercise was executed November 12-13, 2014, immediately after the completion of the draft NDRP for Earthquakes and Tsunamis. The exercise was one sphere of the National Earthquake Drill by the NDRRMC executed on November 14, 2014.

Table 2.4.20 The Main Activities for Implementation of Exercises based on NDRP and Operations Manual

No.	Date	Activities	Venue	Purposes
1	May 28, 2014	Meeting with DSWD (OCD and Experts)	DSWD	To consider Sec. Dinky's revisions to the NDRP, To consolidate concepts for SIMEX
2	May 29, 2014	NDRRMC-TMG	NDRRMC	To finalize the NDRP, To show the concepts of SIMEX to NDRRMC Members
3	June 02, 2014	Meeting with DSWD and PAGASA	OCD	To discuss the SIMEX
4	June 04, 2014	Meeting with OCD R-III	OCD R-III	To discuss the SIMEX
5	June 11, 2014	NDRRMC	NDRRMC	To concur with the execution of SIMEX
6	June 26, 2014	Meeting with DSWD and PAGASA	OCD	To finalize the concepts of SIMEX
7	July 10	TMG MTG on SIMEX of NDRP	NDRRMC	NDRP Orientation to UN HCT and Discussion for SIMEX
8	Oct. 10	TMG Meeting for Earthquake Drill	NDRRMC	Preparing Concept and Basic Procedure for Earthquake Drills

No.	Date	Activities	Venue	Purposes
9	Oct. 17	Meeting with PHIVOLCS	PHIVOLCS	Assumed damages to be utilized in Earthquake Drills
10	Nov. 12-13	Table-top Exercise for the NDRP for Earthquakes and Tsunamis	NDRRMC	Evaluation of the NDRP Understanding Level of participants regarding the NDRP
11	Nov. 14	National Earthquake Drill	Quezon Circle/ NDRRMC/etc.	Demonstration of the Capabilities of National Disaster Response Agencies

Source: DRRM-CEP Team

Based on the discussions with related agencies prior to the exercise, the purpose of this drill/exercise is set as follows:

- ✓ To understand roles and responsibilities of key players of disaster management activities specified in the NDRP,
- ✓ To confirm and review the integrated and generalized national disaster response mechanism by the NDRP,
- ✓ To review the demarcation policy between national, regional, and local governments for disaster response described in the NDRP,
- ✓ To evaluate the contents of the NDRP,
- ✓ To strengthen the national disaster response through understanding cooperation mechanisms and cluster approaches as described in the NDRP and getting to know each other,
- ✓ To interface individual disaster response activities by organization and recognition of response approaches, such as Cluster and ICS, to be applied by the Regional Government and LGU, and
- ✓ To discuss sustainability of designated disaster management activity by each organization.

For these purposes, the basic concepts of the execution of the drill were set as Table 2.4.21 shown below.

Table 2.4.21 Outline for Execution of Drill based on the NDRP and the Operation Manual

Item	Outline	Remarks
Type of Drill	Table-top Exercise participated by focal members	Venue: NDRRMC Conference Room
Scenario of Drill	A Mw7.2 Earthquake occurs in West Valley Fault.	Scenario based on research by PHIVOLCS
Module utilized	Scenario divided into 3 Phases: 3 Envelopes/Phases distributed to Participants. In accordance with instruction of the Moderator, participants read the scenario and described their roles.	Participants can read the NDRP in the exercise.
Actual Discussion	After descriptions/drill of roles by participants (cluster), the evaluation meeting was held.	Evaluation meeting was led by OCD and DSWD
Participation Member	Leading agencies for every cluster. MMDA and Quezon CDRRMO	Confirmation of Interoperability and cooperation mechanism
Input from the Project	Presentation of Lessons Learned in Japan	Presentation by a JICA Expert

Source: DRRM-CEP Team

As a result of the Table-top Exercise, the facts/findings of activities by participants (clusters and organizations) are summarized in Table 2.4.22 shown below:

Table 2.4.22 Results of Table-top Exercises based on the NDRP and Operations Manual

Findings/Issues raised	Causes of Findings/Issues
Some organizations described their roles without discussion with cluster lead agencies.	Approved NDRP has not penetrated into all of the organization. The Vice-Chair for Response and OCD Representatives were not present and therefore was not able to preside over the response clusters in the drill.
Some organizations could not describe what they should do without instruction of the OCD.	Several participants didn't ask the OCD about their roles, although the importance of their roles to the OCD was recognized. Several participants took part in the exercise for the first time.
Except for two (2) issues mentioned above, most of the participants described their role adequately.	In particular, DepEd completely understood its roles and responsibilities in accordance with the NDRP. (They precisely described their role in the NDRP.)
Some agencies didn't describe their participation to RDANA activities.	The importance of the RDANA has not been recognized nationwide. Actions by some agencies are not positive but still passive.
Some agencies didn't describe the participation of the One-Stop-Shop (OSS).	Importance of the OSS has not been recognized.
Most of participant organizations recommend that NGOs shall take part in the exercise as a player.	To understand the NDRP Mechanism.

Source: DRRM-CEP Team

Based on the findings and issues raised in the exercise, points and ideas needing revision in the NDRP listed below were confirmed in the evaluation meeting. (See Table 2.4.23 below)

Table 2.4.23 Revision of the NDRP based on the Results of the Table-top Exercise

Points to be revised/added in the NDRP
More clarification of roles and functions between the OCD and NDRRMC
Obligation of Response Cluster Report by each phase
Automatic Operations Mechanism of the One-Stop-Shop (OSS) (Add in the NDRP, "related agencies shall start establishment of OSS as needed" or "After establishment of the OSS, OCD shall coordinate OSS.")
The format of the Situation Report shall be attached in the NDRP. The format shall include Interoperability, Gaps, Constraints, Needs, and Result of the RDANA
Other
All organizations are required to voluntarily take actions without instructions from the OCD/DSWD in accordance with the NDRP policies and manual to be prepared by each organization.

Source: DRRM-CEP Team

Together with evaluating the exercise as well as the NDRP, the participants confirmed the "Way Forward" as enumerated in Table 2.4.24 below.



Table 2.4.24 Ways Forward based on the Execution of the Table-top Exercise

Next Table-top Exercise
Invite the RDRRMC of Region IV-A, IV-B to confirm disaster response mechanism in region(s) outside Metro Manila.
Or Scenario may be the same (Earthquake in Metro Manila) and one quadrant emergency office would be targeted.
Or Invite the private sector.
Recommendations from the Team
Importance of pre-activities prior to the activities (e.g., understanding the difference between the Table-top Exercise and Practical Drill)
Selection of Participants in accordance with Scenario and Type of Drill/Exercise
Sustainability of Execution of the Table-top Exercise (OCD and DSWD should take the lead)
Review and Improve the NDRP through this exercise.
Things to be discussed in NDRRMC-TMG
Organizing the disaster response team in the private sector with its evaluation method
COA and DBM: Necessity of Invitation to the TMG Meeting (about budgeting system to take advantage of private sector in disaster response operations)
Other
Cascading down to the MMDA and LGU Level of the Report Format
Necessity of execution of Information Disseminating Exercises involving the LGU

Source: DRRM-CEP Team



Source: DRRM-CEP Team

Photo 2.4.5 Table-top Exercise (Drill) for NDRP

The day following the Table-top Exercise (November 14, 2014), the NDRRMC executed “National Earthquake Drill” at three (3) locations in Quezon City based on the scenario of a Mw7.2 Earthquake in Metro Manila. This drill has been executed quarterly every year and the aim is to demonstrate the roles & responsibilities of each cluster/organization. The drill included the following remarkable accomplishments:

- ◆ Demonstrations of the Cluster Approach based on the Approved NDRP,
- ◆ Broadcasting drills simultaneously from 3 locations in collaboration with PTV.

The Team advised the NDRRMC scenario and contents of demonstrations from the preparation phase. The drill can be confirmed through the following URL:

<https://www.youtube.com/watch?v=nThxF7SMw3M>

After the drill, the SND and Director of PHIVOLCS stressed that the barangay level shall be involved in the next drill with the appreciation of success of the drill because of the clear demonstration of the disaster response mechanism.

[35] Revision of NDRP/Operation Manuals

As described above, the NDRP and the OCD Operations Manual for Response developed through Activity [12] “Preparation of National Disaster Response Plan (NDRP) for Selected Disasters,” and Activity [14] “Development of Information Management System required for Priority Areas of Operation” was revised according to the results of Activity [34] “Implementation of Exercises based on the NDRP and Operation Manual (Draft) with IMS,” as well as lessons learned from actual disaster operations.

The approval of the revised NDRP for Hydro-meteorological disasters of which the original was approved in June 2014 is a challenge for the OCD and DSWD (See Activity [12]).

Focal activities regarding these activities (review and improve the NDRP and the Manual) are enumerated in Table 2.4.25 shown below.

Table 2.4.25 Focal Activity List for the Revision of the NDRP/Operation Manuals NDRP

No.	Date	Activities	Venue	Purposes
1	May 28, 2014	Meeting with DSWD (OCD and Experts)	DSWD	To consider Sec. Dinky’s revisions to the NDRP, To consolidate concepts for SIMEX
2	May 29, 2014	NDRRMC-TMG	NDRRMC	To finalize the NDRP To show the concepts of SIMEX to NDRRMC Members
3	July 14-25	Glenda Operation	NDRRMC	OJT for IMS
4	July 25	TMG meeting	NDRRMC	Discussion and Finalization of Evaluation W/S of NDRP
5	July 31& Aug. 1	Evaluation Workshop of NDRP	NDRRMC	Evaluation Workshop
6	July 31& Aug. 1	Evaluation Workshop of NDRP	NDRRMC	Evaluation Workshop for the NDRP
7	Aug. 13	Presentation and Facilitation of NDRRMC-TMG	NDRRMC	Support to develop appurtenant documents of the NDRP
8	Aug. 29	Support of W/S for IHR Operational Guideline	DFA	Support to develop IHR Operational Guidelines
9	Sept. 03	Small Meeting with the PNP	OCD Opns. Div.	Finalization of Protocol for Law & Order
10	Sept. 19	Observation of TY Mario Operation	NDRRMC	Team Observation of TY Operations for Confirmation
11	Sept. 21	Meeting with the Chief of the NDRRMOC	NDRRMC-OpCen	Integration between the Operations Manual and OpCen Manual
12	Oct. 02-03	Disaster Preparedness Workshop	ADB	Consideration for ideal International Cooperation into the NDRP
13	Nov. 12-14	NDRP Table-top Exercise National Earthquake Drill	Quezon Circle/ NDRRMC/etc.	Demonstration of the Capabilities of National Disaster Response Agencies
14	Dec. 04	Brief to UNHCT on the Matter of the NDRP-1	NDRRMC Conference Room	Discussion of the NDRP
15	Dec. 05	Brief to UNHCT on the Matter of the NDRP-2	NDRRMC Conference Room	Discussion of the NDRP

Source: DRRM-CEP Team

Specific points and policies to be revised or added were discussed in the meetings or the exercises and are enumerated in Table 2.4.26 below:

Table 2.4.26 Revision of NDRP, OCD Operation Manual and IMS

Revision Points	NDRP	OCD Operation Manual for Response	IMS
Adding Part of Earthquakes and Tsunamis	<ul style="list-style-type: none"> <li>Integration with Hydro-met. Disaster</li> <li>Development of Operational Protocol for Earthquakes and Tsunamis</li> </ul>	Confirmation of Roles & Responsibilities of OCD (No other major modifications)	-
Increasing the number of Clusters to be managed (8→12)	<ul style="list-style-type: none"> <li>Edit the Main Chapters</li> <li>Add sentences</li> <li>Add sentences in the Operational Protocol</li> </ul>	Adding sentences about the support of cluster activities	-
Introduction to Concepts of PDRA/RDT	<ul style="list-style-type: none"> <li>Edit the Main Chapters</li> <li>Attach the SOP of the RDANA and its Format</li> </ul>	Clarification of responsible division for PDRA/RDT Attaching Concept of PDRA (MC)	Conduct OJT supporting PDRA
Discussions with UNHCT	<ul style="list-style-type: none"> <li>Add Basic concept of coordination with the Humanitarian Group</li> </ul>	-	-
Clarification between OCD and NDRRMC	<ul style="list-style-type: none"> <li>Clarification of roles and responsibilities of the office and council</li> </ul>	-	-
Confirmation of New OSSP	-	Edit due to modification of the OSSP	Preparation of the Manual and Training Modules for the IMS

Note:-: Parts having nothing to revise

Source: DRRM-CEP Team

All points listed in the table above were revised by the Team, and the NDRP and the Manual were finalized again. The NDRP and OCD Operations Manual for Response will be approved respectively as stated in the schedule in Table 2.4.27 below.

Table 2.4.27 Final Approval Activities for the NDRP, OCD Operations Manual for Response and IMS

Activity/Document	Final Explanation Meeting (Date)	Final Decision of the Final Meeting
NDRP	NDRRMC-TMG Meeting (2015.02.11 and 13)	Basically Approved Revised NDRP NDRP will be approved in NDRRMC.
OCD Operation Manual for Response with the IMS Manuals	OCD Mon-Com (2015.02.16-18)	Operations Support Division will support the approval process and final approval will be obtained by March 2015

Source: DRRM-CEP Team

## 2.5 Output 3: DRRM Education and Training Component

### 2.5.1 Outline

#### (1) Output and Activity on PDM

**Output:**

DRRM education and training system and capacity is strengthened.

**Activities of PDM:**

<3-1> Develop National DRRM Education and Training Program (NDRRMETP)

<3-2> Identify and formulate priority training modules for DRRM TIs

<3-3> Develop Civil Defense Education and Training Program for OCD

Source: Expert Team

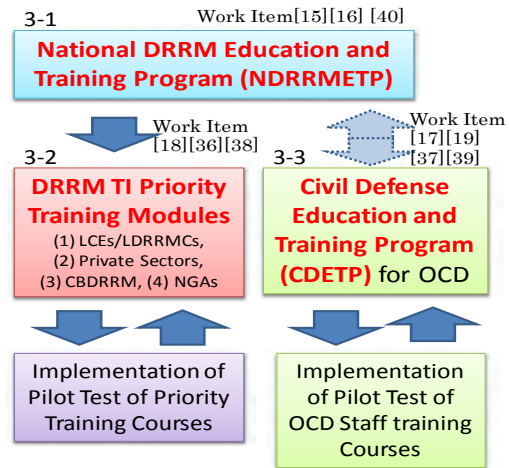


Figure 2.5.1 Expected Output and Major Activities of the Output 3

#### (2) Major Products



National DRRM Education and Training Program



Priority Training Courses



Civil Defense Education and Training Program

Figure 2.5.2 Images of the Major Products

#### 1) National DRRM Education and Training Program (NDRRMETP)

(Approved by Secretariat of National Defense on 15 January 2015.)

The NDRRMETP was developed with the view to provide basic policy guidelines for DRRM education and training for the DRRM stakeholders, whose roles were expanded with the enactment of the RA10121, and the whole nation of the Philippines. The NDRRMETP can call attention to the need for nationwide DRRM education and training, encourage the implementation of the education and training, and contribute to strengthening collaboration and partnerships among DRRM learning service providers.

#### 2) Priority training courses for DRRM TIs

The modules were developed aiming at standardizing the DRRM training courses, which used to be provided with different concepts and approaches, and offering an appropriate training program for

each DRRM stakeholder. In the Project, the training courses and modules were developed for Local Chief Executives (LCEs), Local DRRM Councils (LDRRMCs), Public Sector Employees (PSEs), Private Sectors, and Community-based DRRM stakeholders as the priority targets. (The training course for the CBDRM stakeholders was developed under the activities of Output 4.) The courses were designed for the comprehensive studies of DRRM containing basic DRRM knowledge and information required for each stakeholder. It is expected that the participants of the training courses will gain a wider knowledge of the DRRM and promote the DRRM activities.

### **3) Civil Defense Education and Training Program (CDETP) on DRRM**

(Approved by Civil Defense Administrator (CDA) on 6 January 2015.)

The CDETP on DRRM was developed through conducting pilot tests with a view to provide a concrete idea of the human resource development appropriate for the roles required of the OCD with the enactment of the RA10121, and to offer the knowledge necessary to implement the expanded DRRM services and operation. In the process of the development of the CDETP on DRRM, the DRRM-CEP team reviewed training courses, which used to be provided on an ad-hoc basis, clarified the knowledge and technical skills required for the OCD officers, and reexamined the contents of each training course. The CDETP is expected to provide appropriate training courses to each of the OCD officers and to develop the capacities of the officers in a way that they can show competence expected for OCD. Also, the developed training needs assessment tool and training database will contribute to the timely provision of the training.

### **(3) Result of Technical Transfer**

The activities of Output 3 had been conducted for achieving expected outcome No. 3 of the PDM (Version 3.0, 7 Feb. 2014): “DRRM education and training system and capacity is strengthened.”

Through the discussion for the development of the National DRRM Education and Training Program (NDRRMETP), the OCD counterparts enhanced their recognition that OCD should take the lead in considering and promoting DRRM education and training programs for all the DRRM stakeholders in the Philippines. It is expected that they will make improvements to the program as a living document as needed and can expand it for more stakeholders.

Further, in the process of the activities for the development of the program involving many stakeholders, the OCD counterparts increased their awareness on the importance of the coordination with other stakeholders and strengthened their coordination capacities. They can lead the expanded provision of the DRRM education and training hereafter. Concurrently, the process contributed to increasing the recognition of the importance of the DRRM education and training and the need for the standardized program. With this understanding, the relevant organizations will pursue the promotion of DRRM education and training in cooperation with the OCD.

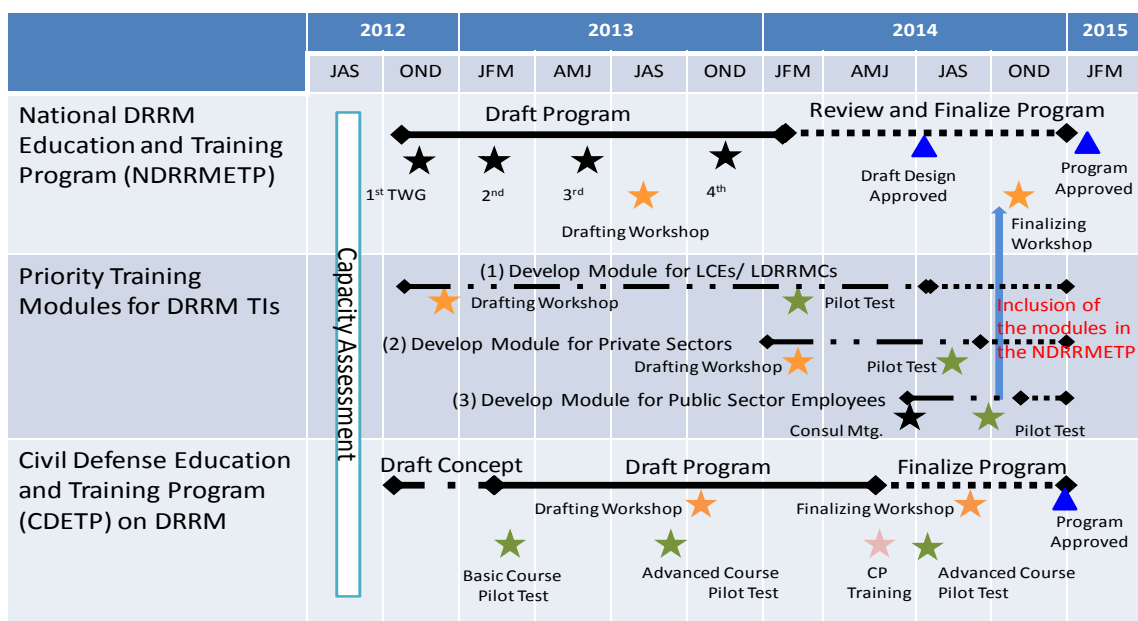
Discussion and the pilot tests of the training courses for the development of the Civil Defense Education and Training Program on DRRM (CDETP on DRRM) invigorated the discussion among divisions in the OCD that were not closely coordinated. The OCD counterparts recognized the importance of internal coordination among divisions and identified the process for coordination. It is expected that the staff members of the Education and Training division take the lead and coordinate well with the other divisions to discuss and implement the capacity development of the OCD officers. Also, the training

courses, which used to be conducted on an ad-hoc basis, were reviewed and reorganized and will be provided in an effective and efficient manner.

In the pilot tests for the NDRRMETP and the CDETP, the OCD counterparts learned Japanese experiences of human resource development for disaster risk management as well as DRR educational tools in Japan. And through the counterpart training in Japan, the counterparts of the Project could learn and realize that various organizations in Japan promote and conduct DRR education and training based on past disaster experiences. With the increased awareness of the importance to consider such information, ideas, and active commitment for DRR education and training when they develop the training courses, the OCD counterparts will be able to further improve the DRRM education and training program in the Philippines.

Furthermore, a training needs assessment, which is one of the important activities in the cycle of the CDETP implementation, has been conducted for the whole OCD in January 2015. Also, implementation of the training courses in the CDETP and the NDRRMETP after the Project period is included in the annual plan and budget for the OCD.

#### (4) Schedule



Source: Expert Team

### 2.5.2 Activity Report

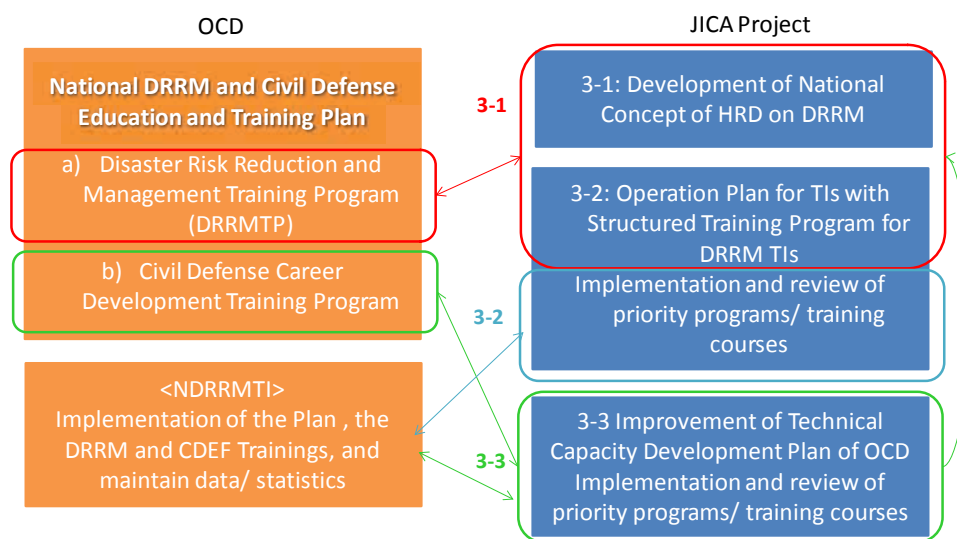
#### (1) General Background

At the beginning of the activities in the 2nd Year of the Project (June 2013), through consultation between OCD counterparts and the Japanese Expert Team, the activities of Output 3 were readjusted based on the progress of the relevant activities by OCD during the period (from March to May 2013) when the Japanese Expert Team was absent, as shown in the Figure 2.5.3.

As a result, the revision of the Project activities was proposed and agreed, as shown in the Table 2.5.1, and Work Items 15 and 16 were combined into one work item.

OCD further elaborated the proposed draft National DRRM and Civil Defense Education and Training Plan (NDRRMCDETP) in 2013. The plan is composed of the following 3 programs and 1 activity: a) National DRRM Education and Training Program, b) Civil Defense Career Education and Training Program, c) NDRRMTI Establishment and Operationalization, and d) NSRC (National Service Reserve Corps) and Disaster Volunteers Training Program. The relationship with the activities in Output 3 of the Project is shown in the Figure 2.5.4.

As of January 2015, the ideas of the NDRRMCDETP have been slightly changed in the OCD; b) Civil Defense Career Education and Training Program and d) NSRC and Disaster Volunteers Training Program are not included in the Plan anymore. Then it was simplified as the National DRRM Education and Training Plan. The Accreditation System of the NDRRMTI in the activity of c) NDRRMTI Establishment and Operationalization will also be included in the composition of the modified Plan, as shown in the Figure 2.5.5.



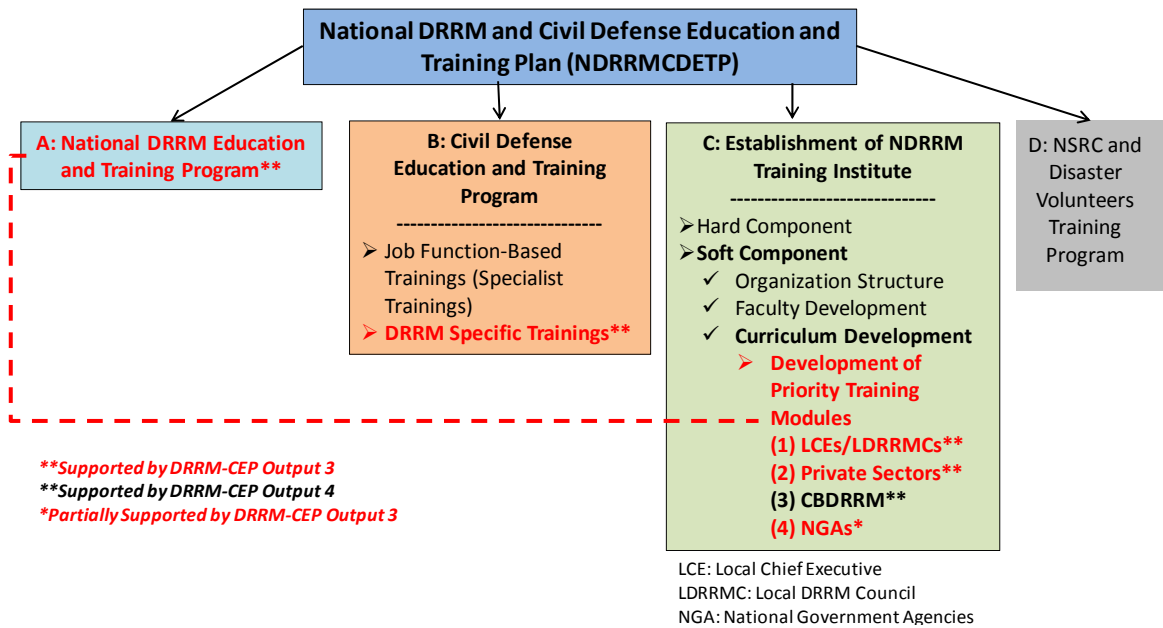
Source: Expert Team

Figure 2.5.3 Progress of Relevant Activities of OCD and Activities of Output 3

Table 2.5.1 Proposed Revision of Activities for Output 3

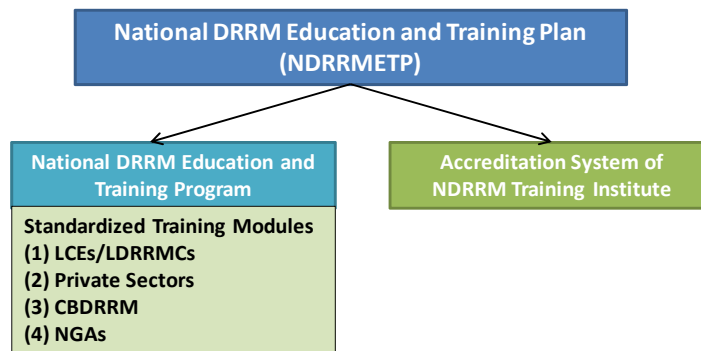
No.	Original Activities in the PDM (as of August 17, 2012)	Proposed Revision Based on the Progress of the Activity of OCD as of June 21, 2013	Proposed and Agreed Main Products as of June 2013
3-1	Formulate national-level concept of human resources development (for technical capacity building) on DRRM	Develop Disaster Risk Reduction and Management Education and Training Program (DRRMETP) (for technical capacity building)	National Disaster Risk Reduction and Management Education and Training Program (DRRMETP) (for technical capacity building)
3-2	Develop operation plan including structured training program for DRRM TI along with implementation and review of priority programs/training courses	Implement and review priority programs/training courses for DRRM TIs	Priority Training Modules for DRRM TIs
3-3	Improve technical capacity development plan for OCD including implementation and review of priority program/training courses	Develop Civil Defense Career Education and Training Program for OCD including implementation and review of priority programs/training courses	Civil Defense Career Education and Training Program (for technical capacity building)

Source: Expert Team



Source: Expert Team

Figure 2.5.4 Activities Supported by the DRRM-CEP in the NDRRMCEDETP



Source: Expert Team

Figure 2.5.5 Draft composition of the National DRRM Education and Training Plan

The activities of Output 3 were conducted in a situation where the above-mentioned change had been made in the process.

**(2) 3-1 National Disaster Risk Reduction and Management Education and Training Program (DRRMETP) (for technical capacity building)**

[15] Prepare Draft National Level Concept of Human Resource Development (HRD) on DRRM

[16] Prepare Draft Operation Plan for DRRM TIs (This is combined with Work Item [15] with the above mentioned revision of the project activities)

[40] Revision of National DRRM Education and Training Program (NDRRMETP)

After consultation with the counterparts on the procedure to formulate the national level concept of HRD on DRRM, the NDRRMC-JICA Technical Working Group (TWG) on the Drafting of National Concept of HRD on DRRM in the Philippines was officially established on 4 October 2012 as a venue for achieving the target activities of Output 3-1 with the purposes and members shown in Table 2.5.2.



Table 2.5.2 NDRRMC-JICA TWG on Drafting of National Concept of HRD on DRRM

<b>Purpose:</b>	To identify necessary competencies based on the allocated roles of each stakeholder To clarify direction for systematic and strategic HRD of all stakeholders under the Republic Act No. 10121 and Disaster Risk Reduction and Management Plan To provide general concepts in line with the establishment and implementation of DRRM Training Institutes To specify priority trainings and make an implementation schedule with estimation of cost
<b>Members:</b>	OCD (Training Division, Admin Division and Project Management Office) Representatives of NDRRMC members (DSWD, NEDA, DILG, DOST: Main department, PAGASA, PHIVOLCS, DENR: MGB, DepED, CHED, LGA, and NDCP) Other experts (Philippines Red Cross, Center for Disaster Preparedness, University of the Philippines, and Miriam College) JICA project experts

Source: Expert Team

The list of the main activities conducted under the TWG to develop national concept of HRD were as shown in the Table 2.5.3.

Table 2.5.3 List of the Main Activities under the TWG

		Date	Main Activities
1	1st TWG Meeting	8 November 2012	Introduction of the TWG activities
2	2nd TWG Meeting	13-14 February 2013	Discussion of the current situation of HRD on DRRM
3	3rd TWG Meeting	4 July 2013	Discussion on necessary training and education programs
4	3-day Workshop	6-8 August 2013	Discussion and drafting of National DRRM Education and Training Program (NDRRMETP) with the Standard List of DRRM Training Modules/Courses
5	4th TWG Meeting	6 November 2013	Review of the preliminary draft of the NDRRMETP
6	Presentation to CDA	18 February 2014	Presentation of the preliminary draft to the CDA
7	Approval of Draft Design	17 July 2014	Getting CDA's approval of the draft design (framework) of the NDRRMETP
8	3-day Workshop	22-24 October 2014	Consultation and validation of the draft strategy and framework of the NDRRMETP and the draft DRRM training modules

Source: Expert Team

The first meeting of the TWG was held on 8 November 2012 to introduce the purpose of the TWG and proposed outline of National Concept of HRD on DRRM. Also some efforts for HRD on DRRM in Japan including of the initiatives of the Disaster Research Institute (DRI) were showcased for the reference of the discussion in the TWG. Then, the second meeting of the TWG was conducted on 13-14 February 2013 for sharing current efforts for HRD on DRRM in each DRRM relevant agencies in the Philippines, discussing issues and challenges in HRD on DRRM. The identified main issues were as shown in the

Table 2.5.4. The TWG members agreed to prepare the National Concept of HRD on DRRM to address the issues. Also, members discussed stakeholder groups and areas of competencies in the Concept.

Table 2.5.4 List of the Main Issues for HRD on DRRM in the Philippines

Categories	Issues
Too many clients (17 Regions, 81 Provinces, 144 Cities, 1,490 Municipalities, 42,027 Barangays, 1,312,508 Government Employees, etc.)	
Presence of different training institutions but not yet enough	<ul style="list-style-type: none"> <li>✓ Lack of competent trainers, instructors, and experts for DRRM capacity enhancement</li> </ul>
Different Concepts and Approaches	<ul style="list-style-type: none"> <li>✓ Limitation of training period thereby resulting in non-coverage or limitation on the discussion of significant and required DRRM processes</li> <li>✓ Different Modules</li> </ul>
Lack of Training Regulations	<ul style="list-style-type: none"> <li>✓ Lack of system for monitoring and evaluation after the training</li> <li>✓ Duplication of trainings to same targets due to lack of coordination among relevant agencies</li> <li>✓ Presence of un-programmed training activities, one-off trainings</li> </ul>

Source: Expert Team



Photo 2.5.1 First and Third TWG Meetings on Drafting of the National Concept of HRD on DRRM

The third TWG meeting was conducted on July 4, 2013, for discussing necessary training and education programs for each stakeholder group identified in the second TWG meeting. Then, the participants developed an outline of each of the proposed training and education programs in groups. Also, in the third meeting, the activities of the TWG were aligned with the “National DRRM and Civil Defense Education and Training Plan (NDRRMCDETP)” which was in the process of being finalized by OCD. The outcome of the TWG was decided to be compiled as National DRRM Education and Training Program (NDRRMETP).

Following the third TWG meeting, a 3-day workshop to finalize the National DRRM Education and Training Program and the Standard List of DRRM Training Modules/Courses was held on August 6-8, 2013. The participants from the TWG member agencies reviewed the outcomes of the second and third TWG meetings and discussed making a list of the training for each of the identified DRRM stakeholders with outlines of the training modules/courses.



Photo 2.5.2 Workshop for Preparation of DRRM Training Course

After the workshop, in order to validate the outcomes of the workshop by the relevant agencies, the DRRM-CEP team consulted the initial draft with each of the relevant agencies by visiting the respective offices in September and October 2013. Based on the comments and suggestions by the agencies, the team prepared a preliminary draft of the National DRRM Education and Training Program (NDRRMETP), to be discussed at the 4th TWG meeting.

The fourth TWG meeting was conducted on November 6, 2013, at the meeting rooms in the OCD. A copy of the preliminary draft of the NDRRMETP was sent to each of the expected participants for their review prior to the TWG meeting. In the meeting, DRRM-CEP team introduced the comments from each organization and the revised points in the preliminary draft of the NDRRMETP. Then, a plenary discussion followed where comments and input from the participants were raised, tackled, and agreed upon.

Based on agreements during the fourth meeting, the preliminary draft NDRRMETP was revised by the team. An electronic copy was sent to each of the TWG Members to have comments returned by November 22, 2013. There were some delays in the schedule due to Typhoon Yolanda hitting the central Philippines on November 6, 2013; the team evaluated and integrated the comments received from the Members afterward and made the presentation of the preliminary draft NDRRMETP to the CDA on February 18, 2014. Then, based on the comments from the CDA, the team refined and finalized the draft. The main points of the revision of the draft were 1) to make the program much simpler, 2) to focus on training programs for four priority stakeholders (LCEs and LDRRMCs, Communities, Public-Sector Employees, and the Private Sector) at the beginning, and 3) to make a coherent framework/composition for the training program of each stakeholder.

Table 2.5.5 Stakeholder Groups in the preliminary draft NDRRMETP

	Stakeholder Groups	Composition
1	National Government Agencies	DND (Chair), DILG (Preparedness), DOST (Prevention and Mitigation), NEDA (Rehab and Recovery), DSWD (Response), Hazards Monitoring and Warning Agencies: PHIVOLCS-DOST, PAGASA-DOST, MGB-DENR, CSO reps
2	Local Government Units	P/C/MDRRMC (P/C/M*), Local Chief Executives, LDRRMOs
3	Communities	Barangay, Individuals and Families, and Disaster Vulnerable Sectors
4	Civil Society Organizations (CSOs)	NGOs and INGOs
5	Academe	Academe (SUCs, Private & Public Schools/Universities, research institutions, vocational schools/centers)
6	Private Sectors	Private Sectors (private companies, corporate social responsibility)
7	Media	Media (Broadcast (radio, TV), Print, Social Media, Film)

Source: Expert Team

Table 2.5.6 List of the Training Courses proposed in the preliminary draft NDRRMETP

Course ID	Course Name	Target
<b>National Government Agencies</b>		
DRRM-N101	DRRM and Initial Agency Appraisal for Preparedness in NGAs	DRRM Team Members
DRRM-N102	Basic DRRM Trainers' Training Course for all NGAs	Training Officers and DRRM Officers (Focal Person)
DRRM-N103	Advanced DRRM Course for DRRMO in NGAs	Directors and Directors' Technical Staff
DRRM-N104	ICS Workshop for Emergency Managers in NGAs	Top Management
<b>Local Government Unit</b>		
DRRM-L101	Executive Course on DRRM for LCEs	LCEs (Mayors and Governors)
DRRM-L102	Government Executive Course on DRRM	LDRRMC Members
DRRM-L103	Advanced DRRM Courses for LDRRMCs	LDRRMC Members
<b>Communities and Civil Society Organizations (*Target participants includes LGU)</b>		
DRRM-C101	Basic Orientation on CBDRRM Course	Community People
DRRM-C102	Basic CBDRRM Course	BDRRMC/other stakeholders
DRRM-C103	Regional ToT on Advanced CBDRRM Course	M/CDRRMC, PDRRMC, RDRRMC
DRRM-C104	Regional ToT on Advanced CBDRRM Course for Disaster Preparedness	M/CDRRMC, PDRRMC, RDRRMC
DRRM-C105	Regional ToT on Advanced CBDRRM Course for Disaster Response	M/CDRRMC, PDRRMC, RDRRMC
DRRM-C106	Regional ToT on Advanced CBDRRM Course for DRRM Plan	M/CDRRMC, PDRRMC, RDRRMC
DRRM-C107	Regional ToT on Expert CBDRRM Course for DRRM	M/CDRRMC, PDRRMC, RDRRMC
DRRM-C108	Regional ToT on Expert CBDRRM Course for Disaster Recovery	M/CDRRMC, PDRRMC, RDRRMC
DRRM-C109	Expert CBDRRM Course on DRRM-Armed Conflict	NGOs
DRRM-C110	Expert CBDRRM Course on DRRM-NGOs	NGOs
DRRM-C201	Specific Skills Course for Disaster Response: CADRE (Community Action for Disaster Response) 1	All Stakeholders
DRRM-C202	Specific Skills Course for Disaster Response: CADRE 2-Training for Instructors	All Stakeholders
DRRM-C203	Specific Skills Course for Disaster Response: CADRE 3-Instructors Workshop	All Stakeholders
<b>Academe</b>		
DRRM-E101	ToT for DepED Trainers on DRRM	DepED Trainers
DRRM-E102	ToT for NSRC Instructors/Trainers on DRRM	NSRC Instructors/Trainers
DRRM-E103	ToT for Trainers of the Pre-school Teachers on DRRM	Pre-School Teachers
<b>Private Sectors</b>		
DRRM-P101	Executive Course on DRRM for Private Sectors	Chief Officers
DRRM-P102	Basic Course on DRRM for Private Sectors	Top and Middle Management
<b>Media</b>		
DRRM-M101	Understanding DRRM for Media Practitioners	OCD/DRRMTIs

Source: Expert Team

At the beginning of the third year activity, after the necessary revision based on the comments by the CDA, the mother design (draft design) outlining the proposed strategy and framework as well as the key activities for the development of the NDRRMETP were finalized, submitted, and approved by the OCD management. With this design, the team focused on the development of the DRRM training modules for priority stakeholders (activities for the 3-2) for the first three months (from July to September 2014).

A 3-Day TWG Workshop for consultation and validation of the draft strategy and framework of the NDRRMETP and the draft DRRM training modules for four priority stakeholders was conducted on October 22-24, 2014. With the active participation of the members of the inter-agency TWG and representatives from other significant agencies, the design of the NDRRMETP – its framework and purpose – was finalized. The course modules for the Local Chief Executives, Local DRRM Councils, Public Sector Employees and the Private Sector were enhanced by subject matter experts while the modules under the CBDRRM’s Basic Instructor’s Guide were presented and comments for these were sought.



Photo 2.5.3 The 3-day Workshop on for consultation and validation of the draft strategy and framework of the NDRRMETP

Further, in the workshop, an initial discussion on the accreditation system that the National DRRM Training Institute (NDRRMTI) shall utilize in the future also transpired and the overall operationalization of the NDRRMTI was discussed. The workshop paved the way for outlining the strategic actions that the OCD shall take in finalizing and in rolling out the NDRRMETP. These actions were classified into short-, mid-, and long-term actions as shown in Table 2.5.7. Meanwhile, the participants agreed to revitalize the dormant NDRRMC Working Committee on the Establishment of DRRMTIs and further promote the activities towards operationalizing of the NDRRMTI

Table 2.5.7 Proposed Strategic Actions for Finalizing and Rolling out the NDRRMETP

ACTIVITY	OPR	TARGET DATE
<b>Short-term (4th Quarter of 2014)</b>		
Finalization of NDRRMETP	OCD	Nov 2014
Vetting of NDRRMETP	OCD	Nov 2014
Consultation Meetings	ALL	Nov to Dec 2014
Submission of the NDRRMETP to CDA	OCD	Dec 2014
Submission of completed modules for all courses	ALL	Dec 2014
Constitution of the TWG on the Development of Accreditation Guidelines for the Learning Service Providers (LSPs)	ALL	Dec 2014

ACTIVITY	OPR	TARGET DATE
<b>Mid-Term (1st Quarter to 2nd Quarter 2015)</b>		
Presentation to NDRRMC TWG	OCD	Jan 2015
Development of AVP (Audio/Visual Productions) on disasters	OCD	Feb 2015
Drafting of the Accreditation Guidelines	TWG	1st Quarter 2015
Consultation Meetings on Accreditation Guidelines	ALL	1st to 2nd Quarter 2015
Conducting next batch of DRRM Training for the four (4) Priority Groups	ALL	1st Quarter 2015
Consultation for MOU with CSC and LGA, other partners	ALL	1st Quarter 2015
Launching of 4 Priority Courses	ALL	2nd Quarter 2015
<b>Long-term (3rd to 4th Quarter 2015)ACTIVITY</b>		
Finalization of the Accreditation Guidelines	TWG	3rd Quarter 2015
Identification of the next priority sector/group (e.g. OFWs, media)	TWG	4th Quarter 2015
Development of Skill-Based Courses as part of the NDRRMETP	ALL	3rd to 4th Quarter of 2015

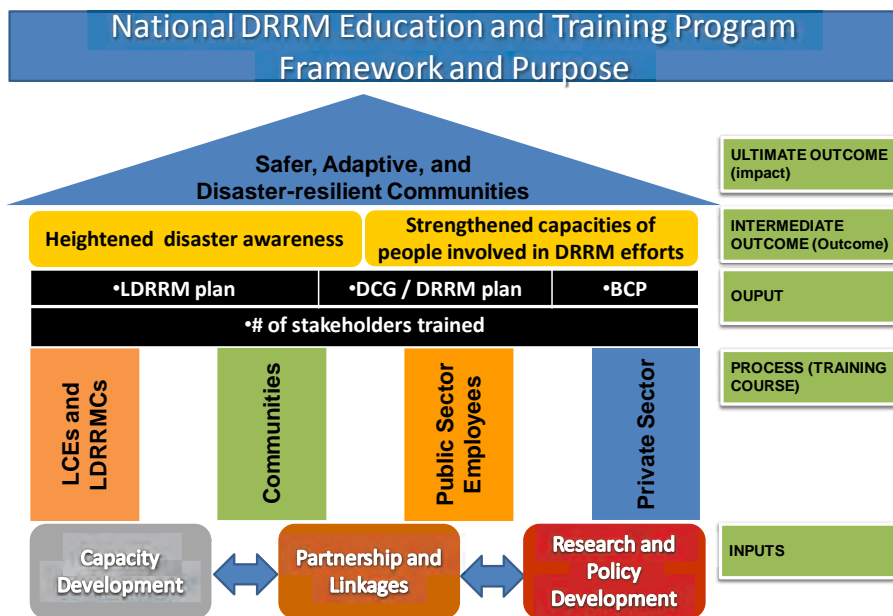
Source: Expert Team

Based on the result of the discussion in the 3-Day TWG Workshop, work for revising and finalizing the design of the NDRRMETP and improving DRRM Training Modules for LCEs & LDRRMCs, Public Sector Employees, and Private Sector were conducted in cooperation with relevant agencies in November and December 2014. The contents, framework and purpose of the finalized NDRRMETP are as show in Table 2.5.8 and Figure 2.5.6.

Table 2.5.8 Contents of the finalized NDRRMETP

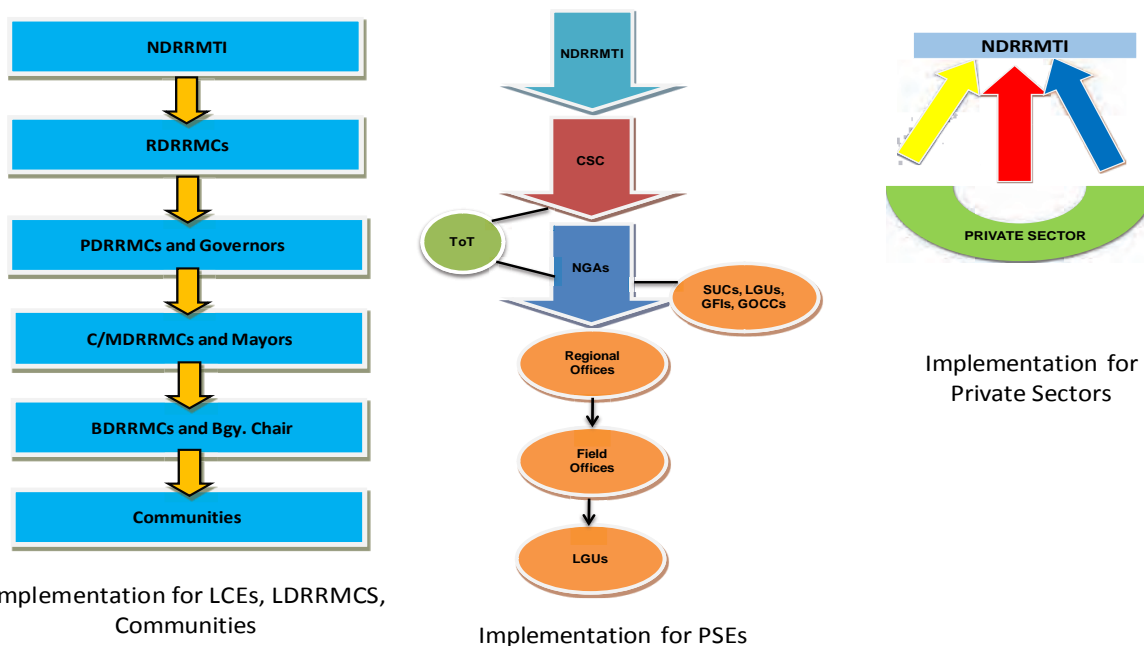
<b>Contents of the NDRRMETP</b>	
1. Chapter One 1) Introduction 2) Legal Basis 3) Current Situation of DRRM in the Philippines 4) Establishment of the National DRRM Training Institute	4. Annex 1: Priority Training Courses 1) DRRM Government Executive Course (for Local Chief Executives) 2) DRRM Government Orientation Course (for Local DRRM Councils) 3) DRRM for Public Sector Employees 4) DRRM is Everybody's Business (for Private Sectors) 5) Community-Based DRRM Training
2. Chapter Two: The National DRRM Education and Training Program 1) Purpose and Framework 2) Priority Stakeholder Groups 3) Training Cycle and Implementation 4) Training Courses	5. Annex 2: NDRRMETP-related Issuances 1) NDRRMETP Mother Design as of December 15, 2014 2) NDRRMETP Mother Design signed July 2014 3) NDRRMC Memorandum Order No. 12, S. 2011 4) Concept Note on the Establishment of National DRRM Training Institute 5) NDRRMC Memorandum Order No. 19, S. 2012 6) Training Guidelines (OCD)
3. Chapter Three: Partnership and Linkages 1) Institutional Arrangement 2) Accreditation System	
DVD: Modules of Priority Training Courses (PPT Presentations)	

Source: Expert Team



Source: "NDRRMETP: National DRRM Education and Training Program"

Figure 2.5.6 Framework and Purpose in the Finalized NDRRMETP



Implementation for LCEs, LDRRMCS, Communities

Implementation for PSEs

Source: "NDRRMETP: National DRRM Education and Training Program"

Figure 2.5.7 Implementation of the NDRRMETP for each stakeholder

Also, as a follow-up action, the team made initial coordination for establishing partnerships with relevant agencies to roll out each of the training programs of the NDRRMETP nationwide (refer to Figure 2.5.7). The team visited the Local Government Academy (LGA) of the DILG for the DRRM Training Module for LCEs & LDRRMCS on 7 November 2014, Civil Service Institute (CSI) of the CSC for the Module for Public Sector Employees on November 7, 2014, and Philippines Trade Training Center (PTTC) of the Department of Trade and Industry for the Module for Private Sector on November 25, 2014 and discussed partnerships and support for each training program and the

accreditation system with the representatives of each agency respectively. All the agencies agreed to provide support to the implementation of the NDRRMETP and to be part of the Technical Working Group (TWG) for developing the Accreditation Guidelines for learning service providers for DRRMTIs.

The team submitted the finalized draft of NDRRMETP including of the DRRM training courses for four priority stakeholders to the Civil Defense Administrator (CDA) and NDRRMC Executive Director on December 29, 2014. With the approval of the CDA on January 7, 2015, the NDRRMETP was submitted to the Secretary of National Defense (SND) and the Chairperson of NDRRMC. The NDRRMETP was approved by the SND on January 15, 2015.

### **(3) 3-2 Identify and formulate priority training modules for DRRM TIs (Training Institutes)**

[18] [36] Implementation and Review of Priority Programs/Training Courses for DRRM TI

[38] Finalizing of Priority Training Modules for DRRM TIs

OCD established the NDRRMC Working Committee on the establishment of DRRM Training Institutes (TIs) on December 12, 2011, before the Project activities had started. Through several committee meetings, four sub-committees with the following tasks and responsibilities were set up for the proceeding preparation process for the establishment of the DRRM TIs: 1) to review the proposed DRRMTI organizational structure and come up with a start-up organization for this purpose, 2) to identify academic institutions as well as government and non-government agencies/organizations that are currently offering/conducting DRRM-related courses/training, 3) to review and standardize DRRM training/formal courses, and 4) to determine and coordinate with academic-partner/government training institutions in Luzon, Visayas, and Mindanao that can be tapped to initially host the DRRM TIs. Further, soft launching of DRRM TIs was originally scheduled in July 2012.

The DRRM-CEP Japanese Expert team identified the above-mentioned situation after the project activities were started and decided to join one of the sub-committees, the committee for developing standardized DRRM training modules, as an observer for monitoring their activities. The sub-committee decided on four training courses targeting the following groups as the priority programs to be conducted in the established DRRM TIs:

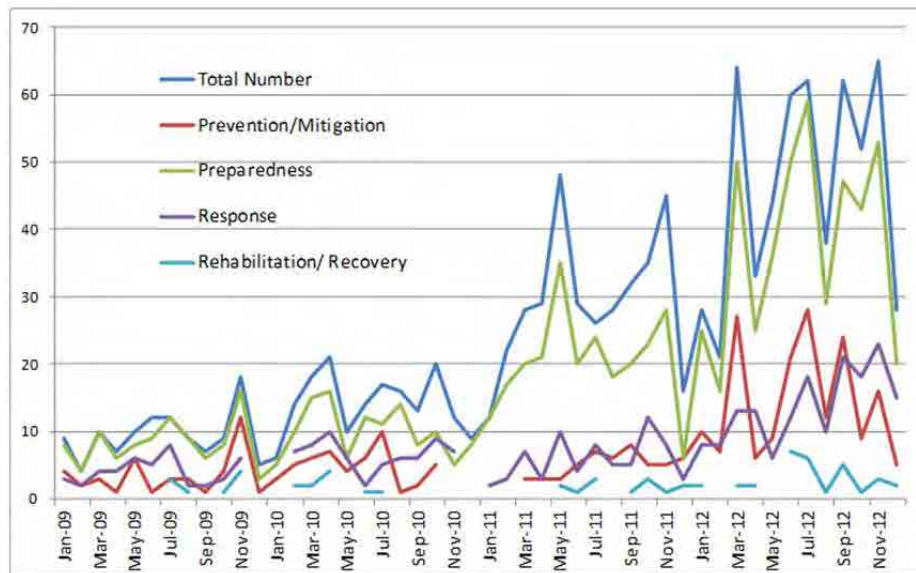
- 1) Local Chief Executives (LCEs)/Local Disaster Risk Reduction and Management Committees (LDRRMCs),
- 2) Stakeholders of Community-based Disaster Risk Reduction and Management (CBDRRM),
- 3) Public Sector Employees (PSEs), and
- 4) The Private Sector, especially Critical Service Providers.

Some workshops and meetings were organized for the development of training modules for the above four groups under the Working Committee; however, due to lack of members who can compile the result of the discussions and finalize and package the modules as well as other reasons, the preparation process of modules was delayed and soft launching was extended.

Under the situation, through discussion with the various counterparts, the DRRM-CEP Japanese Expert team decided to support finalizing the module development of the courses for LCEs and LDRRMCs, and also support conducting a survey for the inventory of the training program that was



under preparation as related activities of the subcommittee of the Working Committee for DRRM TIs. The committee had the responsibility to identify academic institutions as well as government and non-government agencies/organizations that are currently offering/conducting DRRM-related courses/training. Further, as mentioned earlier, with some changes in the OCD-related activities at the beginning of the 2nd Year of the Project, the DRRM-CEP team also decided to support the development of training modules for the private sector and national government agencies in the process.



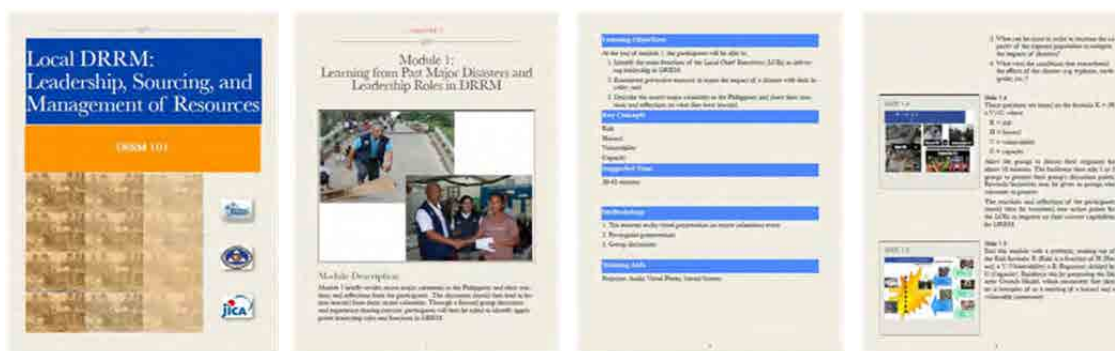
Source: Expert Team

Figure 2.5.8 Trend of the Number of Trainings in the four thematic areas (2009-2012)

With the cooperation of the NDRRMC member agencies, a survey on the current existing DRRM training program was conducted from December 2012 to January 2013. The training program conducted from 2009 to 2012 was reported through the survey. The total number of the collected training data was 1,265 from 13 agencies. From the collected data, current major DRRM training programs were listed for the reference of the activities for the establishment of DRRM TIs. As shown in Figure 2.5.8, the number of the DRRM training has been increasing in total since the RA10121 was enacted in July 2010. The preparedness training has remarkably been provided more and more frequently; however, providing training for rehabilitation and recovery has remained at a low level.

➤ **Formulation of DRRM Training Modules for LCEs and LDRRMCs**

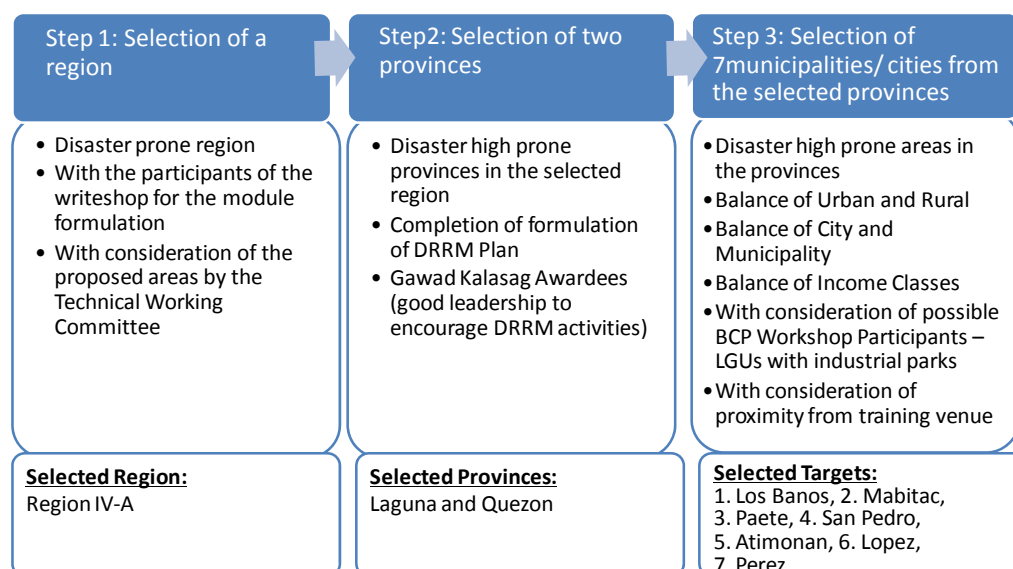
A three-day Workshop to finalize the modules for LCEs and LDRRMCs was organized from December 17-19, 2012. About twenty participants, including members of Working Group One of the subcommittee for the Working Committee for DRRM TIs which is responsible for the modules for LCEs/LDRRMCs and OCD regional directors, attended. The workshop participants drafted the ten modules for the LCEs and LDRRMCs listed below. Then, the DRRM-CEP team, including of the OCD counterparts, finalized and packaged the modules.



Source: Expert Team

Figure 2.5.9 Image of the packaged draft module for the DRRM Training Course for LCEs

The implementation of the pilot test, using the draft module developed for LCEs and LDRRMCs, was conducted in February 2014 after several time extensions of the schedule due to Regional Summits and other constraints of the OCD. The target participants of the pilot test were selected in the process shown in Figure 2.5.10.



Source: Expert Team

Figure 2.5.10 Process of Selecting Target Areas for Pilot Testing

On February 12-13, 2014, the pilot test for the draft DRRM Module for LCEs and LDRRMCs was conducted in collaboration with the OCD Region IV, which was selected as the pilot region. The draft modules were revised and finalized in June and July 2014 based on the result of the pilot test. Some of the points considered for the revision were as follows:

- ♦ Session 1 should have more focus on possible disasters that might happen in the participants' area of responsibility.
- ♦ Session 1 lacked a clear discussion regarding the leadership roles that an LCE should have in times of a disaster.
- ♦ Session 2 should also include topics on reporting and auditing.
- ♦ There should be more time allotted to the session on budget utilization and allocation.
- ♦ There may be a need to simplify or to laymanize the contents of the session by PAGASA.



Photo 2.5.4 Pilot Test of the DRRM Training Module for LCEs and LDRRMCs

Then the draft modules were validated in the 3-Day TWG Workshop for consulting and validating the draft strategy and framework of the NDRRMETP and the draft DRRM training modules for four priority stakeholders on October 22-24, 2014. Some suggestions raised in the workshop were as follows:

- ◆ Consider adding exercise for the LCEs
- ◆ Incorporate the topic on governance
- ◆ Add more substance, especially on the awareness about hazards
- ◆ Consider adding orientation on ICS and hazards, like in the public and private sectors
- ◆ The opening module should be more inviting for the LCEs

Based on the result of the workshop, the DRRM-CEP team finalized the training modules for LCEs and LDRRMCs as shown in Table 2.5.9.

Table 2.5.9 List of the Finalized Modules of DRRM Training Course for LCEs/LDRRMCs

Module I:	Learning from Past Major Disasters (highlighting leadership roles)
Module II:	RA10121: Legal and Institutional Framework of PDRRMS (Philippines DRRM System) (with emphasis on the roles and responsibilities of LCEs)
Module III:	Sourcing, Utilization, and Management of DRRM Resources
Module IV:	Roles, Responsibilities, and Powers of LCEs and LDRRMCs
Module V:	Overview of Risk Assessment
Activity	Cross Road Game (Group discussion in the case of a disaster)
Module VI:	Understanding of Hazards A: Hydro-met Hazard, B: Rain-induced Landslide, and C: Geological Hazard
Module VII:	Overview of ICS (Incident Command System)
Module VIII:	LDRRM Planning

Source: Expert Team

### ➤ **Formulation of DRRM Training Modules for Private Sectors**

The activities for the formulation of the DRRM training module for private sectors were started with the implementation of a 2-day workshop on February 6-7, 2014. Fifteen participants among the invited representatives from eight essential service sectors (Health, Food and Non-Food, Water, Energy, Transport, Communication, Public Security and Order, and Banking) and other selected industries attended the workshop.

First, keynote speakers provided by a BCP (Business Continuity Planning) specialist from Japan, a representative from JICA-ASEAN Area BCP Project, and a local expert who had been involved in risk management in a private company gave presentations. Then there was a group discussion on the following points:

- ◆ Supply/value chain among the sectors invited to the writeshop
- ◆ DRRM experiences and practices of the participants for identifying important themes for training
- ◆ Core Training Modules for chief officer and top and middle managers

The course outline of the DRRM training module for private sectors was proposed as a result of the workshop discussion.

Secondly, two members of the DRRM-CEP output 3 team participated in a two-day training on the Business Case for Disaster Risk Reduction held on June 16-17, 2014 by UNISDR. The training gave the team the references for finalizing the modules and searching for resource people for the Pilot Test of the DRRM Training Course for the private sector.

The Pilot Test of the DRRM Training Course for the Private Sector was held on August 27-29, 2014 with 20 participants from various private organizations that play essential roles in DRRM activities. The participants learned about the Philippines DRRM System and Key Concept, the Effect of Disasters on the Supply-Chain, Hazard Awareness, Corporate Social Responsibility (CSR), Public-Private Partnership (PPP) with some good practices, and an overview of the Incident Command System (ICS). They were also exposed to the BCP concept introduced by a Japanese expert and had the opportunity to practice their newly-acquired knowledge on BCP to work through a short planning workshop.

The following significant points were identified by observation and evaluation of the Pilot Test:

- ◆ This kind of training is required for the Private Sector to promote DRRM activities for each organization and the societies that they belong to; however, the NDRRMTI may prioritize providing training for MSMEs (Micro, Small, and Medium Enterprises).
- ◆ Updated information regarding the Philippines DRRM system, current disaster situation and response measures, and good practices of DRRM activities led by members of the private sector should be included in the training.
- ◆ Participants should be profiled and selected considering their position and their DRRM-related knowledge and experiences in order to have more effective and practical discussions.
- ◆ A more detailed BCP training for each organization or for a selected focus area should be provided separately to ensure that the participants have absorbed and understand fully the concept of BCP and the process for formulating their own plan.



Photo 2.5.5 Pilot Test of the DRRM Training Course for the Private Sector

After the revision based on the result of the pilot test, the draft modules were validated in the 3-Day TWG Workshop on October 22-24, 2014, together with the modules for the other priority stakeholders. Some suggestions raised in the workshop were as follows:

- ◆ Consider changing the sequence of the modules (DCG: Disaster Control Group and ICS should come after the BCP),
- ◆ Revisit why ICS should be included in the private sector course,
- ◆ The course should clarify the internal and external role of the private sector, and
- ◆ Revisit the target audience: private sector with well-organized DCGs or private sector with no DCGs yet?

Considering the result of the workshop, the DRRM-CEP team revised and finalized the modules for the private sector as shown in Table 2.5.10.

Table 2.5.10 List of the Finalized Modules of DRRM Training Course for the private sector

Module I:	WHY CARE?	Learning from Past Major Disasters (highlighting leadership roles)
Module II:		RA10121: Legal and Institutional Framework of PDRRMS (Philippines DRRM System) (with emphasis on the roles and responsibilities of LCEs)
Module III:		Understanding Hazards A: Hydro-met Hazard, B: Rain-induced Landslide, and C: Geological Hazard
Module IV:		CCA (Climate Change Adaptation)
Activity		Cross Road Game
Module V:	WHAT CAN WE DO?	BCP (Business Continuity Planning)
Module VI:		Organizing Disaster Control Groups (DCGs) and Using ICS
Module VII:		Protecting the Supply Chain
Module VIII:		Corporate Social Responsibility (CSR)
Module IX:		Forging Public-Private Partnerships (PPP)

Source: Expert Team

#### ➤ **Formulation of the DRRM Training Modules for Public Sector Employees**

The draft concept note and course outline of the training course for Public Sector employees was prepared in July 2014 based on the module for LCEs and LDRRMCs and through a series of component meetings. With the draft concept note and outline of the training course, initial coordination with relevant agencies, including the Civil Service Commission (CSC), was undertaken in August 2014. In the meeting with the CSC, the mandates between the CSC and the NDRRMTI in the DRRM education and training of public sector employees based on the RA10121 was clarified and reconfirmed.

The Pilot Test of the DRRM Training Course for Public Sector Employees was conducted on September 24-26, 2014. With the active participation of the representatives from 8 national government agencies and an observer from the Civil Service Commission (CSC), the pilot test evaluating the training modules was of value. Some of the evaluations by the participants were as follows:

- ◆ Consider varying the duration, i.e., one-day, two-day, or three-day trainings to make the participation in the training easier.
- ◆ Experts from the leads of 4 thematic areas were energetic, informative and good with delivery, and obviously knowledgeable; however, they may present gaps in the efforts for achieving the goals under each thematic area.
- ◆ Lecturers from technical agencies (PAGASA, MGB, and PHIVOLCS) were informative and easy to understand.
- ◆ Provide more opportunities to discuss with resource speakers regarding their presentations.
- ◆ Provide more time for drill preparation & actual drills.
- ◆ Using a card game such as “Cross Road Game for Disaster Response” is very effective. The game should be localized and utilized in the context of the Philippines.



Photo 2.5.6 Pilot Test of the DRRM Training Course for Public Sector Employees

Same as the training courses for the other stakeholders, after the improvements based on the results of the pilot test, the draft modules were validated in the 3-Day TWG Workshop on October 22-24, 2014. Some suggestions raised in the workshop were as follows.

- ◆ Revisit modules on basic first aid training and handling of victims
- ◆ Revisit the objective of the earthquake drill

The DRRM-CEP team revised and finalized the modules for public sector employees as shown in Table 2.5.11 based on the results of the workshop.

Table 2.5.11 List of the Finalized Modules of DRRM Training Course for Public Sector Employees

Module I:	Learning from Past Major Disasters
Module II:	RA10121: Legal and Institutional Framework of PDRRMS
Module III:	A: Overview of Disaster Prevention and Mitigation
	B: Overview of Disaster Preparedness
	C: Overview of Disaster Response
	D: Overview of Disaster Rehabilitation and Recovery

Module IV:	Climate Change Adaptation (CCA)
Module V:	Understanding of Hazards A: Hydro-met Hazard, B: Rain-induced Landslide, and C: Geological Hazard
Activity	Megro Maki Exercise (Imagination of Disaster Scenario)
Module VI:	Overview of Risk Assessment
Module VII:	Establishing of DCGs and Overview of ICS
Module VIII:	Emergency First Aid at Work
Activity	Action Planning

Source: Expert Team

➤ **Activities in each DRRM Training Course**

With the consideration of raising more awareness of the importance of the DRRM training and ensuring active involvement in the training program, some DRRM education/training tools which were developed in Japan (“Disaster Response Card Game - Cross Road” and “Disaster Situation Imagination Training Tool - Meguromaki”) were introduced in the pilot tests of the training courses. In the evaluation of the pilot tests, the needs for these kinds of tools in the training were recommended, and the activities using the tools were included in the training courses.

**(4) 3-3 Develop Civil Defence Education and Training Program for OCD**

[17] Improve Technical Capacity Development Plan for OCD

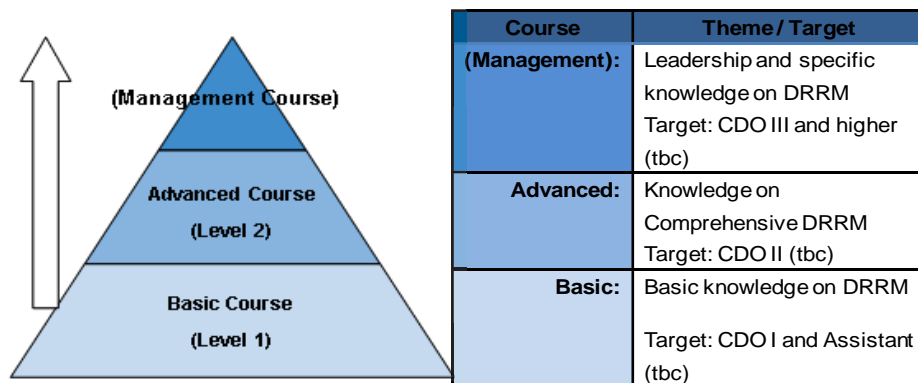
[19] [37] Implementation and Review of Priority Programs/Training Courses for Technical Capacity Development for OCD

[39] Revision of Civil Defense Career Education and Training Program for OCD

OCD conducted “Staff Enhancement Training for OCD Personnel” in 2006 and 2008 for the purpose of equipping OCD personnel with the knowledge, skills, and competencies for more effective delivery of DM services. OCD intended to conduct this kind of training every two years and tried to provide the training for new hires in 2010 and later; however, due to busy schedules in the OCD along with the passage of Republic Act No. 10121, the training was not provided until the Project activities were started. Considering the OCD had a budget to conduct the training in 2012, the DRRM-CEP Japanese Expert team decided to support conducting the “Staff Enhancement Training” targeting new hires as a pilot training for considering and discussing the capacity development plan for the OCD in the Project.

In the capacity assessment survey conducted under the Project activities, the following points on the capacity development of the OCD were identified: “the absence of a concrete human resource capacity development plan to meet the demands of RA 10121; Also, the number of current employees is insufficient to carry out its DRRM tasks.” Furthermore, from the consultation with the counterparts and relevant personnel, more proper understanding of the RA 10121 is required for OCD personnel as a fundamental knowledge for performing given duties. Therefore, the Project team with OCD counterparts designed the course objectives and contents of the training so as to have a firm understanding of the current DRRM system in the Philippines, including RA10121, and tasks of the OCD and NDRRMC vice-chair agencies.

Through several consultation meetings among counterpart members from the administration division and training division, the content of the training program for the basic course was finalized with the agreement of the basic idea of the OCD capacity development scheme as shown in Figure 2.5.11. After several postponements, the training of the Basic Course was conducted February 27 to March 1, 2013.



Source: Expert Team

Figure 2.5.11 Draft Scheme of Technical Capacity Development of OCD Staff

The contents of the Basic Course were deemed adequate and effective for enhancing the capacity of OCD staff members except for insufficient allocation of time for each module. With the result, an initial draft Civil Defense Education and Training Program was prepared by the DRRM-CEP team.



Photo 2.5.7 Pilot Test of the Basic DRRM Training Course for OCD Staff

In order to further verify the Program, the Advanced Course for OCD Capacity Enhancement Training (proposed target: Civil Defense Officers (CDO) II & III) was conducted on August 13-16, 2013. A total of 24 participants (CDO II level) from headquarters and regional offices attended the training. The Advanced Course, which targeted junior officers in OCD, was formulated to provide comprehension of higher-level knowledge on DRRM as well as understanding of the roles of various stakeholders in DRRM, such as LGUs, the private sector, media, and communities.

After the training, the DRRM-CEP team evaluated the training course in detail and discussed further how to make the training a standardized program. Major points of observation and recommendation were as follows:

- ◆ Very clear criteria as a basis for selection of the participants must be defined for effective implementation of the training.
- ◆ A pre-training evaluation must be conducted to gauge what the participants already know.

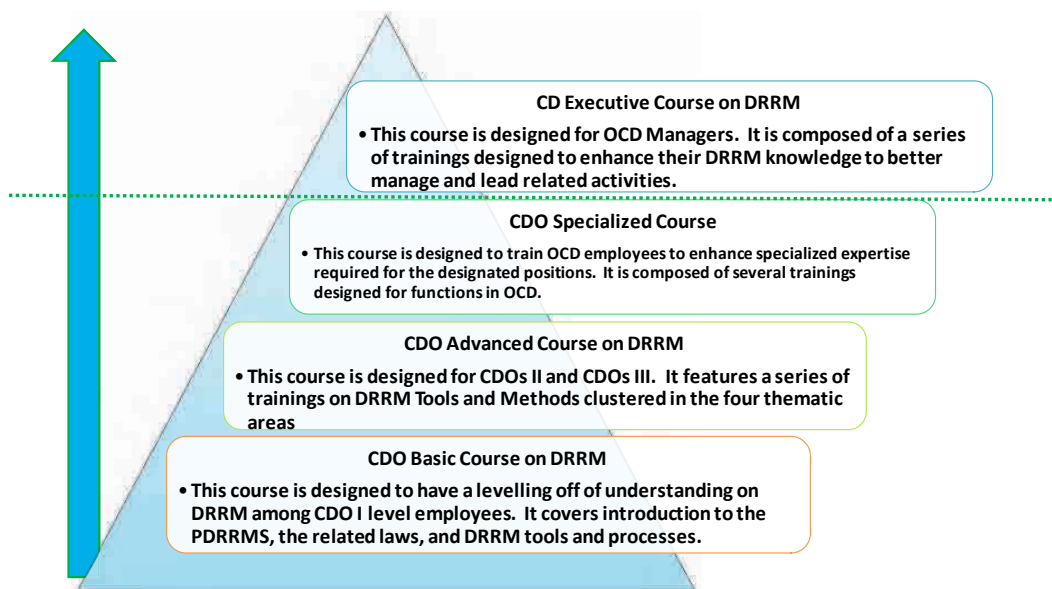


- ◆ Conducting panel discussions, particularly after the sessions, assigned to PAGASA, PHIVOLCS and MGB, must be considered.
- ◆ To further understand CBDRRM, a case study approach may be utilized.



Photo 2.5.8 Pilot Test of the Advanced Training Course for OCD Staff

With the result of the evaluation of the course, a workshop for refining and modifying the Program was conducted on October 22, 2013. In the discussion of the workshop, the DRRM CEP team identified 4 levels of training for the career development for OCD staff members, i.e., basic, intermediate, advanced, and executive courses based on job description, proposed technical competencies, the result of the pilot trainings, past training experiences in OCD, etc. The Basic Course and the Advanced Course were combined as the Basic Course. Further, the team convened meetings to refine the Program on January 28 and February 3, 2014. Based on the discussion in the final preliminary draft Program, the four levels of training (basic, advanced, specialized, and executive) were categorized as shown in Figure 2.5.12. The draft Program was named the Civil Defense Education and Training Program (CDETP) and presented to CDA on February 18, 2014, and modified based on the CDA's comments.



**\*\* An Induction Course for all newly hired OCD Employees (all SGs) shall be developed by the HRMD Division. Part of the course will be a general orientation on DRRM for all employees.**

Source: Expert Team

Figure 2.5.12 Four Levels of Training Courses for the Program

Through some component meetings, the mother design outlining the proposed framework of the CDETP on DRRM together with the key activities for its development was finalized, submitted to and

approved by OCD Management in July 2014. Simultaneous with the preparation for the Pilot Test, establishing a working committee to review the design and contents of the CDETP on DRRM was proposed for necessary activities.

At the beginning of the 3rd year activities, the Contingency Planning training was identified as the priority course in the Advanced Courses of the Civil Defense Education and Training Program (CDETP) on DRRM. The module was formulated based on the third edition of the "Contingency Planning for Emergency - a manual for local government units" developed by UNHCR and NDCC-OCD and issued in October 2007. In addition to the contents of the manual, lectures on community-based risk assessment and cluster approach were included as important programs.

The Pilot Test for the Advanced Course on Contingency Planning was conducted July 22-25, 2014. The participants from the OCD Central and Regional Offices were trained on Contingency Planning including process and facilitation. A separate discussion of the recently approved National Disaster Response Plan (NDRP) was also held with them, which made the participants recognize the importance of good coordination between national and local levels. They were also exposed to experiential learning activities such as (1) town watching in Ilaya, Barangay Alabang, and Muntinlupa City, (2) hazard mapping, and (3) group discussions and presentations.



Photo 2.5.9 Pilot Test of the Advanced Course on Contingency Planning in the CDETP on DRRM

With the observation throughout the delivery of the sessions, evaluation sheet by the participants, and focus group discussion to evaluate the Pilot Test at the end of the training, the DRRM-CEP team identified the points to be improved. The main points were as follows:

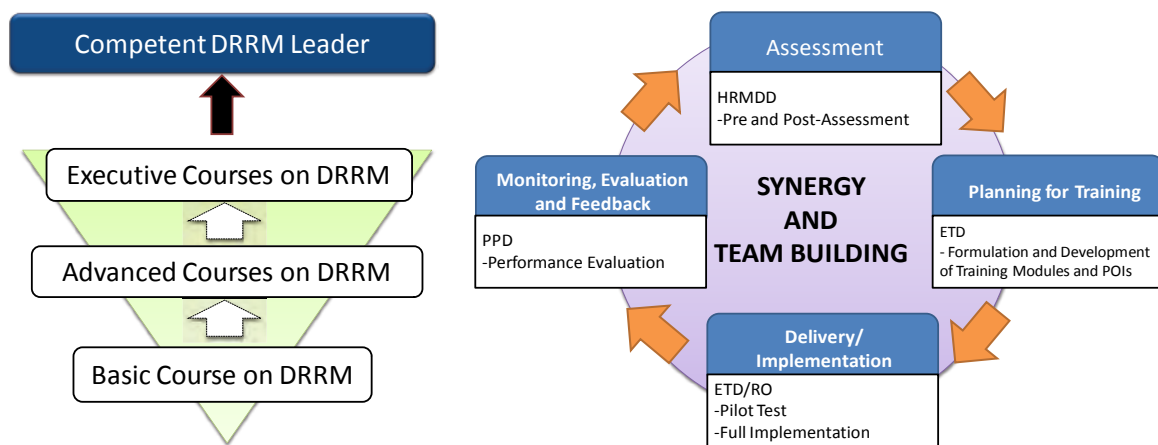
- ◆ Include definitions of terms such as emergency, disaster, proactive, risk map, base map, hazard map, etc.
- ◆ Encourage the sharing of first-hand experiences on the topic to further deepen the understanding of the participants
- ◆ Provide time for practical exercises in filling in the CP Forms after the discussion
- ◆ Including the NDRP is useful in performing the work and functions of a Civil Defense Officer
- ◆ Synchronize CP with the NDRP and other plans and systems
- ◆ Introduce and institutionalize the cluster approach attuned to international standards in the training
- ◆ Enhance the original templates presented by the UNHCR
- ◆ Provide a sample contingency plan to reference during training
- ◆ On the Instructor's Guide, include a guidance note for each and every CP Form in order to ensure uniformity of discussion among instructors

Based on the result of the pilot test, the Advanced Course on Contingency Planning was improved and the draft CDETP on DRRM was further refined. Then, preparation work for the composition of the Working Committee for the Development of the Civil Defense Education and Training Program (CDETP) and for a 3-day consultation workshop with them to review the CDETP on DRRM was carried out in August.

After the establishment of the Working Committee, which is composed of select OCD Central division chiefs and OCD regional directors, a 3-day consultation workshop to review the design and the contents of the CDETP on DRRM was held September 10-12, 2014. With the active discussion of the committee, the draft CDETP on DRRM was validated and improved as shown in Figure 2.5.13, Table 2.5.12, and Table 2.5.13.



Photo 2.5.10 Workshop of the CDETP Working Committee



Source: "CDETP on DRRM: Civil Defense Education and Training Program on DRRM"

Figure 2.5.13 Basic Concept of the Structure (left) and Cycle of the CDETP (right)

Table 2.5.12 Finalized Modules of the Basic DRRM Training Course

Module I:	DRRM Concepts and Principles
Module II:	<p>Introduction to the PDRRMS</p> <ul style="list-style-type: none"> <li>• Philippine Risk Profile</li> <li>• Evolution of DRRM</li> <li>• RA 10121</li> <li>• NDRRMC to LDRRMC</li> <li>• DRRM Fund</li> <li>• NDRRM Framework</li> <li>• NDRRM Fund</li> <li>• Four Thematic Areas</li> <li>• Climate Change Adaptation</li> </ul>
Module III:	<p>Understanding Hazards</p> <ul style="list-style-type: none"> <li>• Hydro-met Hazards by DOST PAGASA</li> <li>• Geological Hazards by DOST PHIVOLCS</li> <li>• Rain-induced Landslides by DENR-MGB</li> <li>• Human-induced Landslides</li> </ul>
Module IV:	<p>DRRM Tools</p> <ul style="list-style-type: none"> <li>• Early Warning Systems (e.g. Project NOAH)</li> <li>• Map Appreciation on DRRM</li> <li>• Introduction to Contingency Planning (CP)</li> <li>• Overview of Cluster Approach</li> <li>• Introduction to Incident Command Systems (ICS)</li> <li>• Break</li> <li>• Introduction to Simulation Exercise</li> <li>• Overview of SPHERE</li> <li>• Evaluation</li> <li>• Introduction to Pre-Disaster Risk Assessment (PDRA)</li> <li>• Introduction to Rapid Damaged Assessment and Needs Analysis (RDANA)</li> <li>• Introduction to Post-Disaster Needs Assessment (PDNA)</li> </ul>
Module V:	<p>Study Tour (e.g. N/R/LDRRM Operations Center)</p>

Source: Expert Team

Table 2.5.13 List of the Advanced Courses and the Specialized Courses, and Outline of the Executive Course in the CDETP on DRRM

<b>Advanced Courses</b>	
<b>COURSES</b>	<b>No. of Days</b>
Incident Command System (ICS)	18 (total)
• Basic/Intermediate ICS	3
• Integrated Planning on ICS	5
• ICS Position Courses	5
• All-Hazard Incident Management Team Training (AHIMT)	5
Rapid Damage Assessment and Needs Analysis (RDANA) Course	3
Post-Disaster Needs Assessment (PDNA) Course	5
Contingency Planning (CP) Formulation	3
Simulation Exercise (SimEx)	3
Community-Based Disaster Risk Reduction and Management (CBDRRM) Training	5
SPHERE (Minimum Standard for Humanitarian Response)	5
<b>Specialized Courses</b>	
<b>COURSES</b>	<b>No. of Days</b>
Medical First Responders Training	13
Water Search and Rescue (WASAR)/Swift WASAR	5
Collapsed Structure Search and Rescue (CSSR)	9
Urban Search and Rescue (USAR)	15
Community Action for Disaster Response (CADRE)	3
Training for Instructors (TFI)	5

<b>Executive Course</b>
A one-day orientation to be followed by relevant external DRRM courses, seminars, and events intended for high-level officials

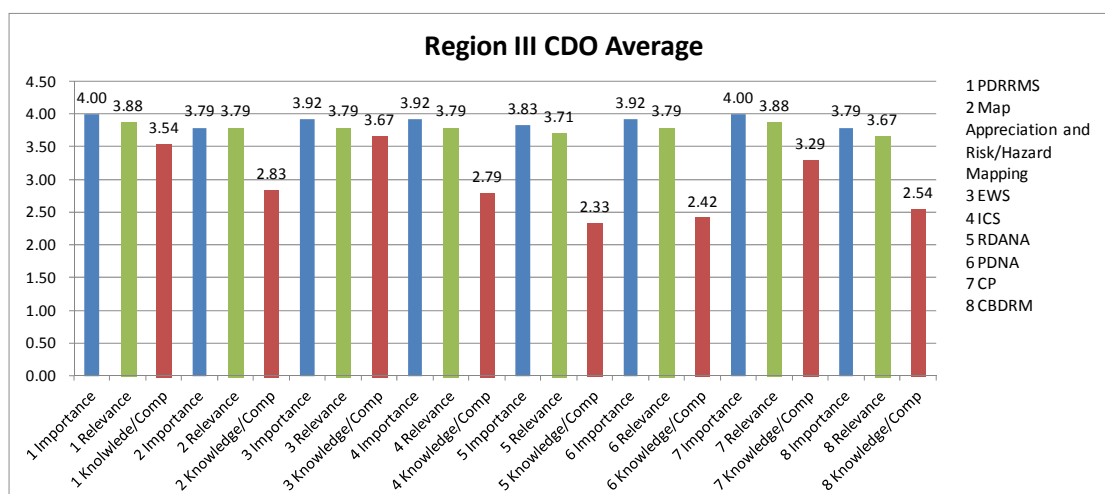
Source: Expert Team

After the Working Committee, a Workshop (writeshop) for the Finalization of the Outcomes of Component 3 was conducted September 29-30, 2014 with the participation of all counterpart members of Component 3 of DRRM-CEP. Detailed validation of the wording in the outcome documents and some concerns such as implementation of training needs assessment were discussed. As one of the results of the discussion, the team decided to conduct a pilot test of training needs assessment tools before finalizing the CDETP on DRRM.



Photo 2.5.11 Writeshop of the Finalization of the Outcomes of Component 3

Identification of the training needs is an important part of the cycle of the CDETP on DRRM. The DRRM-CEP team developed a simple training needs assessment (TNA) tool and conducted a pilot run of the draft TNA tool in collaboration with the OCD Region III Office in November 2014. The results of the pilot assessment were compiled and analyzed as shown in Figure 2.5.14. The DRRM-CEP team learned the tool is easy to implement and effective in identifying the needs for DRRM training for OCD staff. With some minor modifications based on the pilot run, the tool was finalized and included in the final draft CDETP on DRRM



Source: Expert Team

Figure 2.5.14 An example of the result of pilot run of Training Needs Assessment using the draft tool

After inclusion of the finalized TNA Tool, the DRRM-CEP team submitted the final draft CDETP on DRRM to the Civil Defense Administrator (CDA) on December 23, 2014. The CDETP on DRRM was approved by the CDA on January 6, 2015.

### (5) Development of a Training Database

In order to effectively monitor and manage the implementation of the training, it is very important to properly record training events in order to easily access relevant information whenever necessary. As a system to effectively manage the NDRRMETP and the CDETP on DRRM, the DRRM-CEP team developed a training database to identify and record trainings, trainees who attended each training course, and instructors who taught the respective module in each course. The database was developed based on the current OCD format of the training report regulated in the Training Guidelines (refer to the Table 2.5.14) as a collaboration effort with the activities of Output 4. The database was incorporated in the Information Management System (IMS) developed under Output 2.

Table 2.5.14 Format of the Training Report of the OCD

Sheet 1: Training Summary

Region	Training	Class No.	Date Started	Date Ended	Venue	Total Pax	Profile of Pax	Rating	Funding Source
OCD Region I	BICS	01	10/22/2012	10/24/2012	Daza Park, Quezon City	35	LDRRM Officers from Manila and NDRRMC Member Agencies	5	OCD

Sheet 2: Roster of Graduates

Region	Training	Class No.	Control No.	Date Graduated	Last Name	First Name	Middle Initial	Agency	Rating
OCD Region I	BICS	01	001	10/25/2013	Dela Cruz	Juan	A.	OCD	1
OCD Region I	BICS	01	002	10/25/2013	Doe	John	B.	PNP	1

Source: "Memorandum No.705 "Guidelines in the Conduct of DRRM Training and Capacity-Building Activities"

The database is composed of two main functions: (1) registration of the necessary data and (2) listing of the trainings/trainees/instructors by several variables. The registration function consists of the following four pages: 1) a personal database for personal data registration, 2) an event database for training data registration, 3) an alumni/trainee database for trainee registration, and 4) an instructor database for instructor registration, as shown in Figure 2.5.15.

### Personal Database

Personal Database

Person ID: 2015-00002 William Murphy

Title: Mr

Last Name: William

First Name: Murphy

Mobile Name: A

Gender: Male

Position: Entry Worker

Designation: Region D

Organization: Region 5

Office Tel: 889-0394

Mobile Tel: 225-8821

E-mail: m.w.murphy@wvnet.edu

Date of Birth (for Instructor): 10/14/1979

Highest Education (for Instructor): Bachelor

Buttons: [Save] [Cancel]

### Event Database

Event Database

Event ID: USAR-2-2009-Oct-02 - Oct 11, 2009

Implementing Organization: Region 10

Date Started/Event: 10/02/2009 To 10/11/2009

Title: USAR 2008 Training

Work: Conference/HR

City: Okemah, Oklahoma

Region: REGION 10

Task ID: IT

Target Participant: Entrance Staff

Fee/Device/Profile: [Empty]

Rating: 5

Funding Source: OOD

Rating/Score/ID/Status: [Empty]

Training Cost: P185000

Remarks: [Empty]

Buttons: [Save] [Cancel]

### Trainee Database

Trainee Database

Record of ALARM INMATE

Training ID: USAR-0-2008-Oct-16 - Oct 24, 2008

Person ID: 2015-00001 Lee, Kenneth

Designation ID: [Empty]

Rating: 2

Buttons: [Save] [Cancel]

### Instructor Database

Instructor Database

Record of INSTRUCTOR

Training ID: USAR-0-2008-Oct-07 - Oct 11, 2008

Person ID: USAR-0-0001 William Murphy

Course Name: USAR-0-0001 (USAR-0-0001) (USAR-0-0001) (USAR-0-0001)

EDRS Modules:

- Module 1: EDRM Concepts and Principles
- Module 2: Introduction to the FORMS
- Module 3A: Understanding Hazards: Hydro-meteor Hazards by ECST PHOENIX
- Module 3B: Understanding Hazards: Geological Hazards by ECST PHOENIX
- Module 3C: Understanding Hazards: Pan-Regional Landslides by USAR-MGE
- Module 3D: Hazard-Induced Landslides
- Module 4: OPRM / User

Figure 2.5.15 Sample Pages of the Registration Pages of the Training Database (as of Jan. 2015)

The listing function consists of the following four pages: 1) a training list for listing training by year, course, implementing organization, target participant, and region, 2) an instructor list for listing instructors by course, module, region, and organization, 3) a participant list for listing participants by course, and 4) a training list by person for listing all the trainings each person has participated in and instructed, as shown in Figure 2.5.16.

### Training List

TRAINING LIST BY YEAR/COURSE/IMPLEMENTATION ORGANIZATION/TARGET PARTICIPANT/REGION

View: Course Implementing Organization Target Participant Region

Search: 2012

UID	Course	Event	Date	Place	Participant	Implemented By
CADRE-B-2012	CADRE	CADRE 2012 Training	Dec 01 - Dec 10, 2012	Multi-purpose Hall, Madelon, Oustou, REG001.html	City/Municipality Government Staff, Total Ppl: 75 - System No: 27	Region 11

First Previous 1 Next Last

### Instructor List

INSTRUCTOR LIST BY COURSE/MODULE/REGION/ORGANIZATION

Course Module Region Organization

Search: Module

UID	Training UID	Birthdate	Name	Gender	Position	Office	Telephone
2015-00001	CADRE-B-2012	Apr 23, 1982	Medison Nash M	Male	Assistant	CCO HD	725-2776
2015-00010	CADRE-B-2012	Jan 14, 1980	David Antonio J	Male	COO III	Region 9	709-9103
2015-00019	CADRE-B-2012	Mar 03, 1989	John Antonio D	Male	COO II	HR	405-2255
2015-00023	CADRE-B-2012	Jul 05, 1982	William Myrph A	Male	By Answer	Region 5	308-6072
2015-00042	CADRE-B-2012	Apr 22, 1983	Lee Madison W	Male	COO II	Region 12	404-2204

### Participant List

PARTICIPANT/TRAINEE LIST BY COURSE

Course

Search: CADRE

UID	Training UID	Name	Gender	Position	Office	Telephone
2015-00006	CADRE-B-2012	Medison Nash M	Male	COO I	Region 5	725-2776
2015-00011	CADRE-B-2012	David Antonio J	Male	By Answer	Region 9	709-9103
2015-00035	CADRE-B-2012	John Antonio D	Male	Assistant	Region 8	405-7517
2015-00042	CADRE-B-2012	William Myrph A	Male	Utility Worker	Region 5	308-2254
2015-00039	CADRE-B-2012	Lee Madison W	Male	COO III	Region 12	205-2000

First Previous 1 2 3 4 5 12 Next Last



### Training List by Person (As Participants and As Instructors)

TRAINING LIST BY PERSON

Search Person: 2015-00001 David, Antonio

As Participant

ID	Course	Event	Date	Place	Participant	Implemented By
CADRE-0-2012	CADRE	CADRE 2012 Training	Dec 01 - Dec 10, 2012	Multi-purpose Hall, Macaléx, Guatem, REGION IV-A	City/Municipal Government Staff	Region 10
USAR-2-2009	USAR	USAR 2009 Training	Oct 02 - Oct 11, 2009	Conference Hall, Clavero, Capellan, REGION II	Brigade Staff	Region 10
BLS-1-2000	BLS	BLS 2000 Training	Jan 16 - Jan 22, 2000	Lecture-Praxis, Tapaquirán, Escobar, REGION VII	Brigade Staff	Region 4B
WASAR-3-2000	WASAR	WASAR 2000 Training	Jan 28 - Jan 31, 2000	Main Laboratories, San Fernando City, La Unión, REGION I	Provincial Government Staff	Provincial Government

Figure 2.5.16 Sample Pages of the Listing Pages of the Training Database (as of Jan. 2015)

All the pages of the Training Database can be downloaded as CSV files which are easily utilized for further advanced analysis and evaluation.

## 2.6 Output 4: CBDRRM Component

### 2.6.1 Outline

#### **(1) Output and Activity on PDM**

##### **1) Output**

4. Support system to Community-Based Disaster Risk Reduction and Management (CBDRRM) is strengthened

##### **2) Activity**

4-1 Review previously conducted CBDRRM activities

4-2 Develop CBDRRM National Policy to implement CBDRRM activities

4-3 Develop CBDRRM Training Course with module including Basic Instructor's Guide

4-4 Implement and review pilot CBDRRM activities

4-5 Prepare action plan to implement CBDRRM activities nationwide

#### **(2) Major Products**

##### **1) CBDRRM Concept Paper and National Policy including Action Plan**

Many kinds of CBDRRM activities have been conducted in the Philippines by various related organizations, donor agencies and NGOs. However, most of those activities have been conducted under their own policies on locations, contents, etc. They have not been monitored by OCD properly. The Government of the Philippines recognizes the necessity to conduct and repeat the CBDRRM activities nationwide and decided to define the national policy to disseminate nationwide CBDRRM activities efficiently by utilizing the limited resources. The concept paper, which shows the basic items to be written in the national policy, the action plan, which shows the target and road map to disseminate the CBDRRM activity nationwide, and the national policy, which will be approved by NDRRMC, have been prepared in the Project under the initiative of the counterpart members and related organizations. OCD and related agencies will be able to secure the budget for the CBDRRM activity, implement and promote the CBDRRM activity strategically and sustainably by utilizing those products.

##### **2) CBDRRM Training Course and Basic Instructor's Guide (BIG)**

As shown above, the quality of the CBDRRM activity has been neither stable nor even assessed by OCD properly, because the CBDRRM activities have been conducted by various agencies, donors and NGOs under their own policies. The Project decided to prepare the training course and the guidelines to secure the basic quality of the activity by clarifying the basic capacities to be equipped by the community people. The CBDRRM activity will be standardized accordingly, and its quality will be secured by requesting related agencies, donor and NGOs to use those products.

##### **3) Database to record, monitor and analyze CBDRRM activities**

As mentioned above, the CBDRRM activities have not been properly monitored or assessed by OCD, because those activities have been conducted by various agencies, donors and NGOs under their own policies. However, the CBDRRM activities will now be conducted strategically based on the national

policy. It is expected that OCD will monitor the CBDRRM activities, review and improve the national policy and the guidelines.

### (3) Result of Technical Transfer

The target of the Output 4 is the “Support system to CBDRRM is strengthened”.

The counterparts for Output 4 were engaged in the Project activities actively. Especially for the pilot test of the CBDRRM activity, not only the counterparts, but also the other officers of the OCD participated and had active discussions. The strategy for the nationwide implementation of the CBDRRM activity was also the idea of the counterparts. They are also preparing the national policy including the action plan independently. One of the major results of the technical transfer is the achievement of the products shown in (2).

The other result of the technical transfer is the proper understanding by the counterpart members on the role of OCD for the CBDRRM activity through the Project activities. At the beginning of the Project, a focus on the preparation of the guidelines was planned. However, at the beginning of the 2<sup>nd</sup> year activity, the activities were modified to focus on the system development to sustain the activity and to implement the activity nationwide, rather than the preparation of the guidelines. Although there were some opinions to prioritize the preparation of the guidelines, the counterparts began to understand the importance of developing the system gradually. Finally, an answer given during the interviews at the terminal evaluation stated that one of the Japanese inputs that were effective in the activity was the importance of system development.

The counterpart members also understood the importance to monitor, evaluate and improve the CBDRRM activities after the Project. The counterpart members were actively engaged in the development of the database to monitor the activities efficiently.

The indicators on Output 4 of the PDM have not been achieved at present. However, it can be said that the necessary technology has transferred, and the targeted capacity was enhanced.

### (4) Activity Schedule

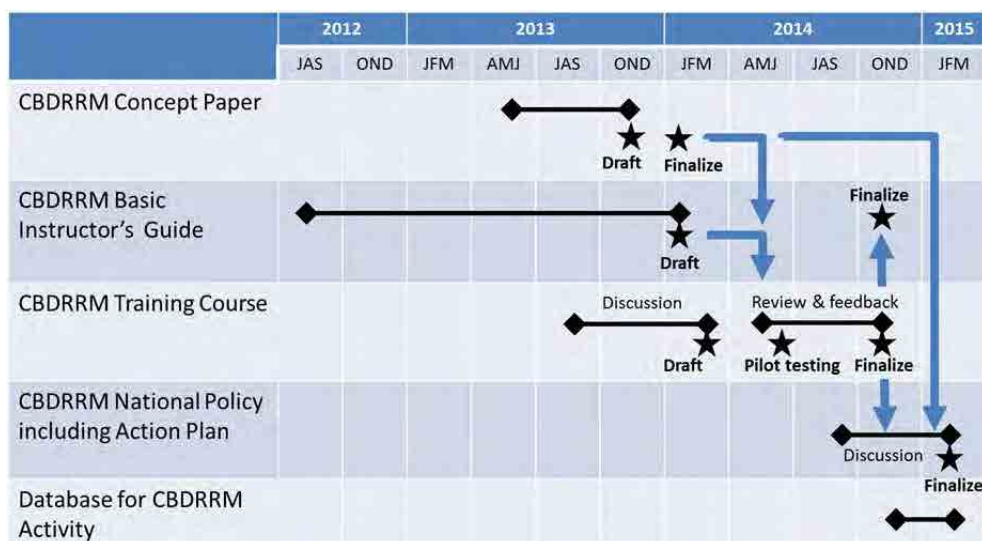


Figure 2.6.1 Activity Schedule of Output 4

## 2.6.2 Activity Report

### (1) Preparation of Concept Paper

The original activity agreed on at the beginning of the 1<sup>st</sup> year of the project was to start from the preparation of guidelines for the Barangay level officers to train the community people, and to prepare the action plan in order to promote CBDRRM activities by using the guidelines. However, it was decided that the project put the high priority on the establishment of mechanism to implement and promote CBDRRM activity based on the experience of similar projects of JICA in other countries. At first, the Concept Paper was prepared, which shows the definition of CBDRRM activity, the role allocation of related organizations to implement and promote CBDRRM activity, and the implementation mechanism, etc. The details of the guidelines and training course were discussed based on the Concept Paper. The National Policy including the action plan in order to implement and promote CBDRRM activity nationwide will be prepared by OCD based on the above products, and approved by NDRRMC. The process to prepare the above products and their summary are explained in this section.

[23][44] Study on Existing System, Budget, Training Program, any Other Activities

[24][45] Study on the Mechanism for Utilization of Existing System (policy/technical support) and Budget

#### 1) Collection and Analysis of Existing Materials

The following information was collected and analyzed in order to prepare the Concept Paper.

Table 2.6.1 Collected Information

Information / materials	Summary
The Philippine Disaster Management Act of 2010 (RA10121)	The basic law for DRRM enacted in 2010
Strengthening the Philippine Disaster Control Capability and Establishing the National Program on Community Disaster Preparedness (PD1566)	The previous basic law for DRRM before RA1011
The Local Government Code of the Philippines (RA7160)	The law describing roles of LGUs
National DRRM Plan 2011-2028	National level DRRM Plan based on RA10121
National Climate Change Action Plan 2011-2028	National climate change action plan prepared in 2011
Joint Memorandum Circular: 2013-1 Allocation and Utilization of the Local Disaster Reduction and Management Fund (LDRRMF)	Memorandum defining details how to utilize LDRRMF jointly issued by multiple agencies

*Source: Expert Team*

Based on the above materials, the roles and the responsibility of national government agencies (NGAs) and LGUs can be described as follows.

Table 2.6.2 Roles and Responsibility of NGAs and LGUs on CBDRRM

Agencies	Roles and Responsibility
National Government Agency (NGA)	<ul style="list-style-type: none"> <li>DILG has overall responsibility for preparedness as Vice Chairperson of Disaster Preparedness. For implementation of CBDRRM activity, they should coordinate the activity or partner agencies as the lead agency (R.A. 10121 Sec. 5 and NDRRMP TA2)</li> <li>OCD has responsibility for developing and ensuring the national standards/guidelines for implementation of a disaster risk reduction program as secretariat of the NDRRMC. They also monitor and evaluate the program. For implementation of CBDRRM activities, they should implement standard disaster risk reduction programs with relevant agencies as lead agencies (R.A. 10121 Sec. 9 and NDRRMP TA2).</li> </ul>
Local Government Units (LGUs)	<ul style="list-style-type: none"> <li>LGU offices of the Province, City and Municipality should establish LDRRMO. Staffs of LDRRMO are responsible for (1) administration &amp; training, (2) research &amp; planning, and (3) operation &amp; warning (R.A. 10121 Sec. 12 (a)-(c))</li> <li>Barangay offices should establish BDC/BDRRMC. The members/officers of BDC/BDRRMC have responsibility for the implementation/promotion of CBDRRM for rescuing people in the communities (R.A. 10121 Sec.12 (a)-(c)).</li> </ul>

Source: Expert Team

A lot of activities related to CBDRRM have been conducted by utilizing funds from donors and CSOs in the Philippines. On the other hand, DILG and DSWD have conducted the following activities by their own budget.

Table 2.6.3 Activities related to CBDRRM by DILG and DSWD

<Activity by DILG>

Basic Concept	Capacity Building of LGUs (Staff/Organization) and M&E of performance
Program	CBDRRM Disaster Risk Reduction and Management Training (TOT)
Targets	Barangays in 18 river basins (10,750 in 2012 and 3,799 in 2013)
Participants	DRRM focal staffs of City/Municipality and Barangay leader
Outputs	(1) Barangay Profile, (2) Barangay Readiness Checklist, (3) Hazard maps, (4) BDRRM plan, (5) Contingency plan per hazard (include EWS per hazard and evacuation plan), and (6) Organized BDRRMC

<Activity by DSWD>

Basic Concept	Assistant of Poor Families Nationwide
Program	Training for Family and Community-Based Disaster Preparedness (FCBDP) (TOT)
Targets	Focal person or social welfare officers in regional & provincial level
Participants	Poor Families (2.8 million in 2013 and planning for 3.1 million in 2014)
Outputs	Awareness/participation of DRRM for poor families (beneficiaries of CCT program), Hazard map, Family preparedness plan

Source: Expert Team

According to the collected materials in the first year and the above survey results, most of the activities related to CBDRRM are supported by the donors and CSOs or the project-based ad-hoc activities by NGAs with their own budget. It means that the previous activities have not been conducted strategically and continuously.

Therefore, the Concept Paper was prepared based on the ideas that the activities should be implemented by NGAs and LGUs by using their own budget (DRRMF) in order to sustain the activities. However, it does not mean rejecting the financial support from the donors and CSOs, but rather utilizing their supports for the complement and the promotion of the planned activities based on their own budget.

[21] Prepare CBDRRM Requirements that should be written in C/MDRRMP

**2) CBDRRM Requirement that should be written in C/MDRRMP**

It is indispensable to train the members of BDRRMC/BDC properly to promote CBDRRM activities. Therefore, determining how to enhance the awareness and capacity of the City/Municipal DRRMO officers to be trainers is one of the key challenges. One of the methods to answer this challenge is to describe the role of the City/Municipality on CBDRRM in the City/Municipality DRRMP, or to describe the quantitative targets of CBDRRM activities. The CBDRRM requirements, which should be written in the C/MDRRMP, were proposed as shown below, through interviews to pilot LGUs of Output 1. These proposals were described in the Concept Paper.

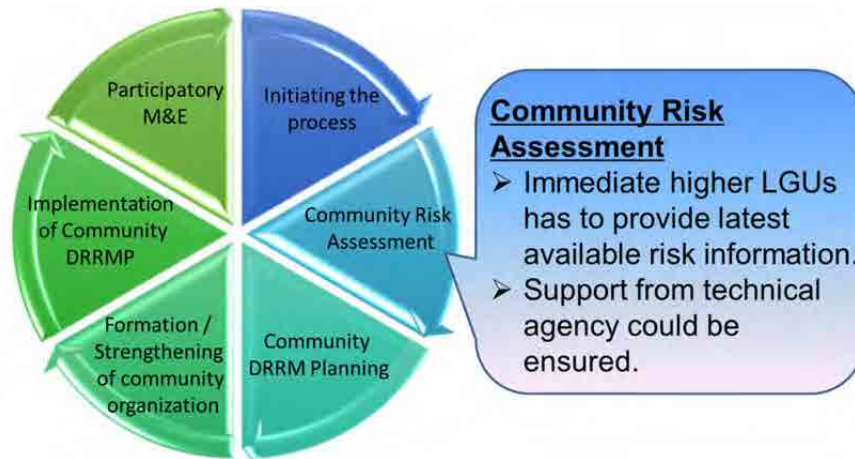
- ◆ Development of a city/municipal implementation plan to promote CBDRRM training and related support activities based on the need for complementation and consistency, and as an integration of the provincial CBDRRM and barangay-level implementation plan.
- ◆ Training of trainers to target stakeholders from barangay DRRMC and BDC members based on standardized guidelines, manuals, and tools prepared by the NDRRMC.
- ◆ Maintenance and quarterly updating of a database for the CBDRRM pools of trainers.
- ◆ Coordination, regular monitoring, evaluation, and feedback with constituent barangays in the implementation/promotion of CBDRRM training and related support activities using standard M&E system and templates.
- ◆ With reference to results of risk assessments and subsequent analysis, identify and customize local-level indicators, targets, and activities related to CBDRRM for input to LDRRM plans.
- ◆ Provision and/or outsourcing of technical and budgetary support for training implementation to constituent barangays, including the dissemination of the latest available official hazard/risk data and maps.

**3) Preparation of Concept Paper**

CBDRRM activity should be conducted for all the communities in the Philippines. However, there is not an implementation policy of CBDRRM activity as a nation and many agencies are conducting CBDRRM activity based on their own policies and rules. In order to utilize the limited resources, the national policy to implement CBDRRM activity nationwide should be prepared. Therefore, it was decided to prepare the Concept Paper which would be the basis for the national policy to implement CBDRRM activity nationwide. The prepared Concept Paper is attached as Appendix A4.

The following three points are the key descriptions of the Concept Paper.

- ◆ Definition of CBDRRM Activity
  - CBDRRM activity was defined as the 6 activities shown in the following figure so that the related agencies would have the common understanding on CBDRRM activity.
  - It was described in the Concept Paper that necessary supports would be given from the upper LGUs and the technical agencies for the community risk assessment.
  - It was also described that the CBDRRM activity has to be repeatedly conducted.

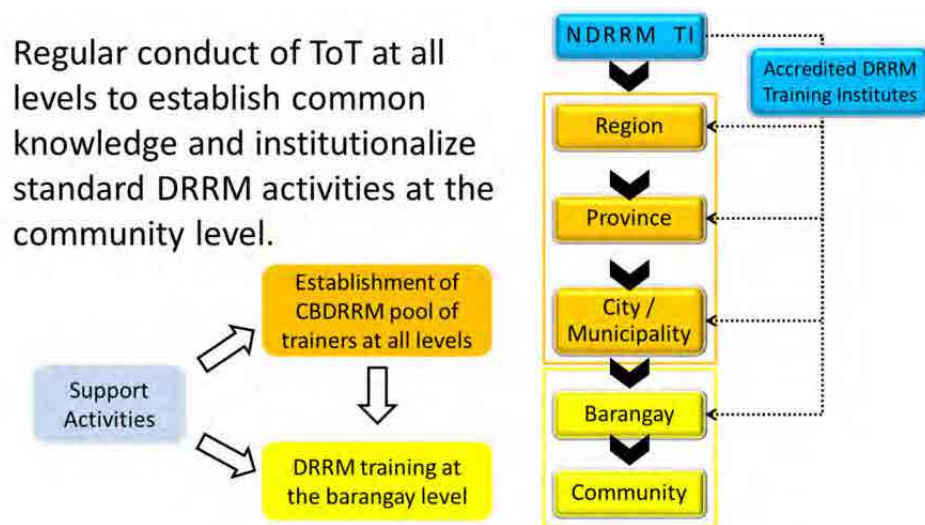


Source: Expert Team

Figure 2.6.2 6 Steps of CBDRRM Activity

◆ Implementation Mechanism of CBDRRM Activity

- The TOT (Training of Trainers) mechanism to establish a CBDRRM pool of trainers at the national, regional, and LGU level, and the minimum support activities that must be conducted to ensure the implementation of the whole CBDRRM
- The TOT activity is conducted by the cascading system from national to regional, provincial city / municipal and barangay level



Source: Expert Team

Figure 2.6.3 Implementation Mechanism of CBDRRM Activity

- The major support activities for the TOT and Community Training were defined as follows:
  - Development of policy and training materials at the national level
  - Formulation of a CBDRRM implementation plan integration of this plan into existing plans at all the levels of governance
  - Development of a monitoring and evaluation system for CBDRRM and advocacy/information and education campaigns to maintain the sustainability of CBDRRM activities

- ◆ Clarification of Role Allocation of NGAs and LGUs
  - The role allocation of NGAs and LGUs was clarified in order to promote CBDRRM activities nationwide efficiently.

## **(2) Preparation of Guideline and Training Courses**

### **[20] Prepare Draft Guidelines for Implementation of CBDRRM Activities**

#### **1) Collection and Analysis of Related Materials**

Related existing materials were collected and their contents were analyzed in order to prepare the guidelines for implementing the CBDRRM activity. The materials were collected from observing 56 agencies; the needs and issues were analyzed through interviews and group discussions.

- ◆ National Government Agencies (NGA) and Local Government Unit (LGU): 29 agencies
- ◆ Civil Society Organization (CSO): 21 agencies
- ◆ Donor Agencies: 6 agencies

Through the above mentioned methodologies, the Team was able to obtain 179 materials such as manuals, modules, guidelines, good practices, etc. The Team identified issues and challenges for the preparation of guidelines:

- ◆ The need to have a basic guideline covering essential aspects of CBDRRM (basic understanding, disaster preparedness, disaster mitigation, emergency response, and recovery) and integrating the aspects of vulnerable groups is deemed necessary to guide the leaders, especially the members of the community.
  - Guidelines produced by OCD should be included in essential aspects of CBDRRM and integrated into the aspects of vulnerable groups.
  - Some of the process of CBDRRM activities, such as risk assessment and determination of evacuation routes and places, should be incorporated with technical and scientific aspects. For instance, scientifically-driven hazard maps or maps produced using GIS technology and community-drawn maps should be incorporated with each other.
  - Guidelines should be easy to understand, implemented, and cascaded by target users.
- ◆ DRRM related information is seldom passed down to the community people given the fact that the BDRRMC is confronted with issues regarding resources and capacities.
  - Identify and institute the cascading mechanism of DRRM-related information down to the community to ensure their participation in CBDRRM activities not only for actual events, but also during the preparedness stage.
  - The cascading mechanism should be integrated into the existing mechanism to ensure its sustainability.
  - LGUs and other administrative agencies / offices should be involved in promoting / implementing the CBDRRM activities.
  - Capacities of BDRRMC and DRRM officers to pass along DRRM-related information should be improved.



## 2) Summary of Guidelines

The draft guideline was prepared through discussion with counterparts, discussion with OCD officers (August 2, 2012), and meeting with related agencies (November 6-7, 2013) during the 1<sup>st</sup> and 2<sup>nd</sup> year activities of the project. The summary and the concept of the guidelines are shown below.

Table 2.6.4 Summary of Guideline

Item	Summary
Name	CBDRRM Basic Instructor's Guide (BIG)
Objective	The objective of BIG is to serve as a standard guide for training communities
User	<ul style="list-style-type: none"><li>• Trainers at national and local level will conduct the TOT</li><li>• Trainers at Barangay level will train the community</li></ul>
Concept	<ul style="list-style-type: none"><li>• To ensure the integrity of the CBDRRM activities program</li><li>• To provide easy-to-understand materials</li><li>• To propose effective and appropriate practices</li></ul>

Source: Expert Team

### (a) To ensure the integrity of the CBDRRM activities program

All the necessary items on the CBDRRM activity is covered through the interview results with a total of 56 agencies, the analysis of 179 collected materials, the workshop to convene the related agencies, and the comments from these related agencies.

### (b) To propose effective and appropriate practice

Some real stories and good practices are included in the guideline in order to clarify/make easier the implementation of CBDRRM activities.

### (c) To provide easy-to-understand materials

A "tool kit" (explanation slides and handout) is attached to the guidelines. This tool kit provides some lecture module materials which can be used by the trainers.

[22] Prepare CBDRRM Training Course as a Part of TI Program

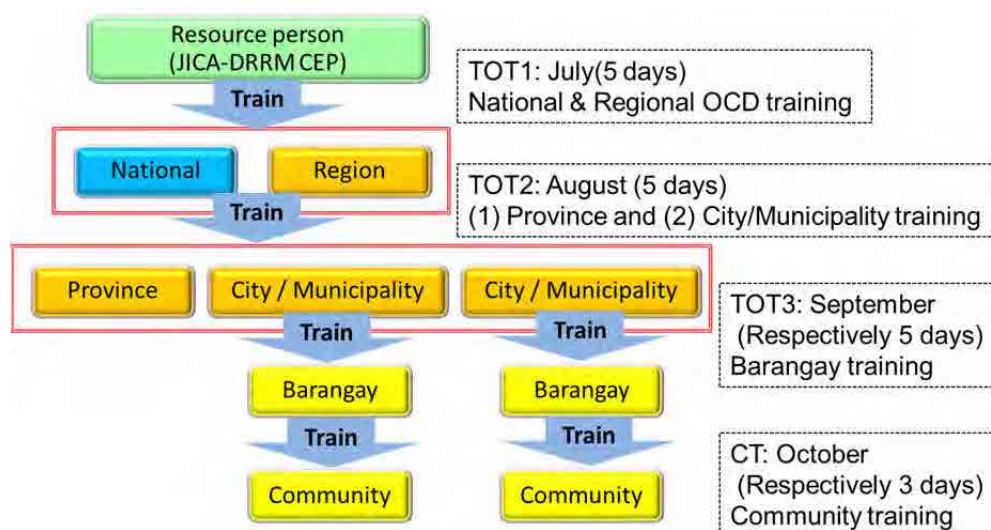
[41] Implementation of CBDRRM Training Course as a Part of the TI Program: Pilot Testing and Feedback

## 3) Preparation of Training Course

The prepared training course will be used for the TOT activities which will be conducted at the national, local and barangay level to train the pool of trainers for the CBDRRM activity, and for the training of the community. It will be used by the NDRRMTI which will be established in the near future. The program of the training course is 5 days for the TOT activity and 3 days for the Community Training, since the items to be understood by the trainers and the items to convey to the community are different.

## 4) Implementation of Pilot Test

In order to finalize the guideline and the training course, the pilot test was conducted from July to October 2014. The composition of the pilot test is shown in the figure below.



Source: Expert Team

Figure 2.6.4 Composition of Pilot Test

1 Region, 1 Province, 1 City, 1 Municipality and 2 Barangays were selected as the pilot area. The national and regional level officers were trained at TOT1, the provincial and city/municipal level officers were trained at TOT2 by the trainers who were trained at TOT1, and the barangay level officers were trained at TOT3 by the trainers who were trained at TOT2. The barangay-level officers who were trained at TOT3 trained the community people at the Community Training (CT).

Regarding the Basic Instructor’s Guide, its Usability/User Friendliness, Comprehensiveness/Sufficiency or Adequacy, and Appropriateness will be evaluated and the training course itself will also be checked from the point of view of Effectiveness and Sustainability.

Since the purpose of pilot testing is the finalization of the drafted materials, it is indispensable to collect comments/feedback from the users (officers from pilot LGUs). In this sense, “high motivation of officers for DRRM” will be included in the criteria to select pilot areas. The selection criteria are as follows:

- ◆ High motivation of officers for DRRM
- ◆ Disaster-prone areas
- ◆ Accessibility is good (for the monitoring activity)
- ◆ Availability of risk maps by the READY project

The selected pilot area is shown in the table below.

Table 2.6.5 Selected Pilot Area

Region	Province	City/ Municipality	Barangay
Region III	Province of Bataan	City of Balanga City	Brgy. Tortugas
		Municipality of Morong	Brgy. Sabang

Source: Expert Team

During the pilot testing, the review meetings were conducted at the end of the activity every day to clarify the issues and feedback to the next day activity and next pilot testing. The evaluation workshop was also conducted at the end of the whole pilot testing at Manila on October 14, 2014. In this

workshop, the remaining issues were discussed for finalizing the guidelines and the training course. The major issues raised in the workshop were as follows.

- ◆ More time shall be allocated for the community risk assessment, since it is very important.
- ◆ More detailed examples are necessary for the template to describe the outputs of the community activities shown in the guideline.
- ◆ The community-level action plan, which is the final output of the community activity, shall be reflected to the barangay level DRRM plan. More time shall be allocated for action planning.
- ◆ A more detailed list of trainings and the implementing agencies for each activity described in the guidelines shall be shown.
- ◆ The handout must be distributed to the community.
- ◆ The drill shall be implemented during the 3-day community activity.



**TOT1**



**TOT2**



**TOT3**



**Community Activity**



**Community Activity**



**Evaluation Meeting**

Source: Expert Team

Photo 2.6.1 Pilot Test

[42] Finalize CBDRRM Guidelines

[43] Finalize CBDRRM Training Course in DRRMTI

**5) Finalization of the Guidelines and Training Course**

The guidelines and the training course were finalized based on the results of the pilot testing and the evaluation workshop. The schedule of the training course, which corresponds to the composition of the guidelines, is shown in the table below. The guideline for the 3-day community training and the guideline for the 5-day TOT were prepared.

Table 2.6.6 Schedule of Training Course

5-day TOT activity

Date	Schedule
1 <sup>st</sup> day	<p><b><u>Opening Activities</u></b></p> <ul style="list-style-type: none"> <li>• Invocation</li> <li>• Philippine National Anthem</li> <li>• Opening Remarks</li> <li>• Introduction of Participants</li> <li>• Expectations, Setting, and Training Overview</li> <li>• Formation of Host Teams</li> <li>• Setting of House Rules</li> </ul> <p><b><u>Module 1: The Philippines Context and Importance of CBDRRM</u></b></p> <ul style="list-style-type: none"> <li>• The Local Philippine Disaster Situation</li> <li>• Basic Concepts on DRRM and CCA/M</li> <li>• CBDRRM as an Approach to DRRM</li> <li>• Legal Basis for CBDRRM</li> </ul>
2 <sup>nd</sup> day	<p><b><u>Module 2: Steps in Conducting CBDRRM</u></b></p> <ul style="list-style-type: none"> <li>• Community Risk Assessment</li> <li>• Participatory Planning</li> <li>• BDRRMC Strengthening</li> </ul>
3 <sup>rd</sup> day	<p><b><u>Module 3: Preparedness, Prevention, and Mitigation Mechanism</u></b></p> <ul style="list-style-type: none"> <li>• Review the Definition and Importance of Disaster Preparedness, Prevention, and Mitigation</li> <li>• National Warning System</li> <li>• Mechanism per Hazard</li> </ul>
4 <sup>th</sup> day	<p><b><u>Module 4: Disaster Response and Preparations for Rehabilitation and Recovery</u></b></p> <ul style="list-style-type: none"> <li>• Disaster Response</li> <li>• Key Roles and Responsibilities during Disaster Response</li> <li>• Evacuation Camp/Center Management</li> <li>• Relief Delivery Operation</li> <li>• Providing First Aid</li> <li>• Basic Water Safety and Rescue</li> <li>• Management of the Dead and the Missing</li> <li>• Psychosocial Support</li> </ul>
5 <sup>th</sup> day	<ul style="list-style-type: none"> <li>• Individual and Family Response to Specified Disasters</li> <li>• Preparation for Rehabilitation and Recovery</li> <li>• Simulation Exercise</li> </ul> <p><b><u>Module 5: Action Planning</u></b></p>

3-day community activity

Date	Schedule
1 <sup>st</sup> day	<p><b><u>Opening Activities</u></b></p> <ul style="list-style-type: none"> <li>• Invocation</li> <li>• Philippine National Anthem</li> <li>• Opening Remarks</li> <li>• Introduction of Participants</li> <li>• Expectations, Setting, and Training Overview</li> <li>• Formation of Host Teams</li> <li>• Setting of House Rules</li> </ul> <p><b><u>Module 1: The Philippines Context and Importance of CBDRRM</u></b></p> <ul style="list-style-type: none"> <li>• The Local and Philippine Disaster Situation</li> <li>• Basic Concepts on DRRM and CCA/M</li> <li>• CBDRRM as an Approach to DRRM</li> <li>• Legal Basis for CBDRRM</li> </ul> <p><b><u>Module 2: Steps in Conducting CBDRRM</u></b></p> <ul style="list-style-type: none"> <li>• Community Risk Assessment</li> </ul>
2 <sup>nd</sup> day	<p><b><u>Module 2: Steps in Conducting CBDRRM</u></b></p> <ul style="list-style-type: none"> <li>• DRRM Planning</li> <li>• Review of the BDRRMC Structure</li> </ul> <p><b><u>Module 3: Preparedness, Prevention, and Mitigation Mechanism</u></b></p> <ul style="list-style-type: none"> <li>• National Warning System</li> <li>• Validation of the Early Warning System and Evacuation Plan</li> <li>• Preparedness, Prevention, and Mitigation Tips</li> </ul>
3 <sup>rd</sup> day	<p><b><u>Module 4: Disaster Response and Preparations for Rehabilitation and Recovery</u></b></p> <ul style="list-style-type: none"> <li>• Key Roles and Responsibilities during Disaster Response</li> <li>• Evacuation Camp/Center Management</li> <li>• Providing First Aid</li> <li>• Individual and Family Response to Specified Disasters</li> <li>• Preparations for Rehabilitation and Recovery</li> </ul> <p><b><u>Module 5: Action Planning</u></b></p>

Source: Expert Team

**(3) Establishment of Database**

[47]Consolidation/Reflection into IMS Database

It is important for agencies at the national, regional, local, and barangay level to play their own roles properly based on the concept paper in order to implement the CBDRRM activity nationwide. The main roles are the implementation of TOT activity and the community training, and the training of pool of trainers. OCD has to monitor the implementation conditions of CBDRRM activities. The project proposed the monitoring method as follows and the database for the monitoring was created.

- ◆ The agencies at the national, regional, local and barangay level will record the name of trainees and trainers of the TOTs and CTs, and will report it to the higher agencies.
- ◆ The OCD Regional offices will input the reported data into the database, and will monitor the implementation conditions of CBDRRM activity together with the OCD central office.

The data, which shall be put into the database, will follow the instruction shown in memorandum No. 705, “Guidelines in the Conduct of DRRM Training and Capacity-Building Activities.” The details are explained in section 2.5.

#### **(4) Preparation of the National Policy, including the Action Plan**

[46]Prepare Action Plans to Implement CBDRRM Activities Nationwide

##### **1) Strategies for Nationwide Implementation of CBDRRM Activities**

One of the most important objectives of the project is that the CBDRRM activity is implemented nationwide after the project. For this purpose, the project supported to prepare the concept paper, the training course/guideline, and the database for the monitoring. In addition to these outputs, it is necessary to have a strategy to let LGUs implement the CBDRRM activity, since the main actor for the CBDRRM activity is LGU including the barangay. The strategy, which is the result of the discussion among the project team, is as follows:

- ◆ The training course/guideline will be prepared, the CBDRRM activity will be standardized, and the activity will be implemented by LGUs easily.
- ◆ The national policy to implement CBDRRM activity nationwide will be prepared based on the concept paper. The methodology, the role allocations, the target of nationwide implementation, action planning, etc., will be defined in the national policy for the basis of nationwide implementation of the CBDRRM activity.
- ◆ The national policy together with the training course/guideline will be officially approved by the NDRRMC. The memorandum will be circulated to the related agencies including all the LGUs in the Philippines.
- ◆ The OCD will monitor the implementation conditions of the CBDRRM activities by utilizing the database and will take necessary actions depending on the conditions.

##### **2) Related Information for Action Planning**

The action plan that will be included in the national policy should be the realistic plan based on the budget scale and the capacity of each agency level. The following items were discussed in the project for the action planning:

- ◆ The number of years to complete the TOTs for all the barangays in the Philippines (Set the target year to complete the nationwide TOTs)
- ◆ The number of TOT activities per year for each agency level to achieve the target
- ◆ Necessary annual budget for each agency level to implement the necessary number of TOTs per year

In order to consider the above items simply, the conditions were set as follows:

- ◆ Each agency level conducts the TOT activity twice a year
- ◆ Each TOT activity trains 40 trainees
- ◆ The breakdown of the 40 trainees is 8 trainees from 5 agencies. It means that one TOT covers 5 agencies (10 agencies are trained a year)

There are 17 regions, 80 provinces, 1,634 cities/municipalities, and 42,028 barangays in the Philippines. The result is shown in the table below.

Table 2.6.7 Summary of Result

TOT	Necessary Years
TOT1: from National to Region	Two years
TOT2: from Region to Province	One year
TOT3: from Province to City/Municipality	Average two years However, some provinces have 40 to 50 cities and municipalities. Those provinces need 5 years to complete TOT activities
TOT4: from City/Municipality to Barangay	Average three years However, some cities have more than 40 barangays. Those cities need more than 5 years to complete TOT activities. And 26 cities have more than 80 barangays. Those cities need more than 8 years in the calculation.

Source: Expert Team

The project team discussed that the target number of years to complete once and for all throughout the Philippines might be three to four years. In the case for the cities that have more barangays, it is necessary to consider and change the number of participants or the number of activities per year.

Regarding the necessary annual budget to implement the TOT activities, if it is calculated by using the basic cost for the training program shown in memorandum No.705 “Guidelines in the Conduct of DRRM Training and Capacity-Building Activities,” with the same conditions as the above calculation, 776,000Php will be necessary for each agency annually. The table below shows the average annual LDRRMF at each level of the LGUs (5% of IRA in 2012), except for the barangay level. The LDRRMF at barangay level shows the actual budget of LDRRMF in 2014 at the barangays in the City of Balanga, Region III. By this table, it is easy to consider and recognize the appropriateness of 776,000Php against the LDRRMF at each level.

Table 2.6.8 LDRRMF at each Level

Level	LDRRMF (Php)
Province	43,260,000
City	22,300,000
Municipality	3,160,000
Barangay (Average of barangays in the City of Balanga)	125,669
Barangay (Max of barangays in the City of Balanga)	279,388
Barangay (Min of barangays in the City of Balanga)	63,098

Source: Expert Team

It is necessary to set the realistic target by using these data for the preparation of the action plan.

## 2.7 Other Activities

Descriptions of other activities are presented in the following.

### (1) Counterpart meeting

The counterpart meetings were held as shown below. The major contents of the meetings were the confirmation of the progress, sharing outputs and problems, the agreement of the contents, etc.

Table 2.7.1 List of Counterpart meetings

1<sup>st</sup> year

No.	date	Major Topics	Organizations
1	02.05.2012	<u>Kick-Off Meeting</u> - Human Resource Development Component - Operations Component - Next Counterpart Meeting	Participants: 11 - OCD - JICA Expert Team
2	30.05.2012	<u>1<sup>st</sup> Counterpart Meeting</u> - Progress of Operation Component - Progress of CBDRM Component - Schedule for upcoming events	Participants: 15 - OCD - JICA Expert Team
3	22.06.2012	<u>2<sup>nd</sup> Counterpart Meeting</u> - Progress of CBDRM Component - Planning Component - Selection of pilot area - Schedule for upcoming events	Participants: 14 - OCD - JICA Philippines Office - JICA Expert Team
4	25.07.2012	<u>3<sup>rd</sup> Counterpart Meeting</u> - Activities Prior to JCC Meeting and JCC Agenda - Findings, Issues and Proposed Priority Activities - Progress of Each Component - Schedule for upcoming events	Participants: 13 - OCD - JICA Philippines Office - JICA Expert Team
5	29.08.2012	<u>4<sup>th</sup> Counterpart Meeting</u> - Reiteration of Agreed Component Outputs and Activities during 2nd JCC Meeting - Component Progress - Schedule for coming events	Participants: 15 - OCD - JICA Expert Team
6	15.09.2012	<u>5<sup>th</sup> Counterpart Meeting</u> - Updates on the Development of NDRP - Updates on IMS Development - Schedule for upcoming Counterpart Meeting	Participants: 14 - OCD - JICA Expert Team
7	23.10.2012	<u>6<sup>th</sup> Counterpart Meeting</u> - Progress of Each Component - 3rd JCC Meeting - Upcoming Activities	Participants: 23 - OCD - JICA Philippines Office - JICA Expert Team
8	27.11.2012	<u>7<sup>th</sup> Counterpart Meeting</u> - Progress of Each Component - Holding Annual Seminar on JICA DRRM-CEP - Upcoming Activities - Others	Participants: 21 - OCD - JICA Philippines Office - JICA Expert Team
9	30.01.2013	<u>8<sup>th</sup> Counterpart Meeting</u> - Progress of 1st year - Plan of 2nd year - Cancellation of Seminar - Input to National DRRM Summit - Discussion on CBDRM component	Participants: 14 - OCD, NEDA, DSWD - JICA Philippines Office - JICA Expert Team
10	01.03.2013	<u>9<sup>th</sup> Counterpart Meeting</u> - Wrap up of 1st year	- OCD - JICA Philippines Office - JICA Expert Team



2<sup>nd</sup> Year

No.	date	Major Topics	Organizations
1	21.06.2013	<u>Kick-Off Meeting</u> - Plan of 2 <sup>nd</sup> Year Activities	Participants: 32 - OCD - JICA Expert Team - JICA Philippines Office
2	12.08.2013	<u>1<sup>st</sup> Counterpart Meeting</u> - Progress of Activities	Participants: 22 - OCD - JICA Expert Team - JICA Philippines Office
3	30.08.2013	<u>2<sup>nd</sup> Counterpart Meeting</u> - Progress of Activities - Explanation of Mid-term Review	Participants: 21 - OCD - JICA Philippines Office - JICA Expert Team
4	27.09.2013	<u>3<sup>rd</sup> Counterpart Meeting</u> - Progress of Activities - Overall Schedule - Explanation of Mid-term Review	Participants: 27 - OCD - JICA Philippines Office - JICA Expert Team
5	04.11.2013	<u>4<sup>th</sup> Counterpart Meeting</u> - Progress of Activities - Overall Schedule - Highlights and Recommendations from Mid-term Review	Participants: 29 - OCD - JICA Philippines Office - JICA Expert Team
6	13.12.2013	<u>5<sup>th</sup> Counterpart Meeting</u> - Progress of Activities - Overall Schedule for 2014	Participants: 10 - OCD - JICA Philippines Office - JICA Expert Team
7	21.01.2014	<u>6<sup>th</sup> Counterpart Meeting</u> - Progress of Activities - Overall Schedule - C/P Training in Japan - PDM	Participants: 18 - OCD - JICA Philippines Office - JICA Expert Team

3<sup>rd</sup> Year

No.	date	Major Topics	Organizations
1	09.06.2014	<u>Kick-off Meeting</u> - Confirmation of action plan for 3 <sup>rd</sup> year	Participants: 30 - OCD - JICA Philippine Office - JICA Expert Team
2	19.06.2014	<u>Courtesy Call</u> - Explanation of the project to New Civil Defense Administrator (CDA)	Participants: 5 - OCD - JICA Philippine Office - JICA Expert Team
3	14.07.2014	<u>1<sup>st</sup> Counterpart Meeting</u> - Presentation of the Action plan prepared by counterpart training in Japan - Sharing outputs of the training in Japan - Confirmation of the schedule	Participants: 20 - OCD - JICA Expert Team
4	22.09.2014	<u>2<sup>nd</sup> Counterpart Meeting</u> - Kick off meeting of Terminal evaluation	- OCD - Terminal Evaluation team - JICA Philippine Office - JICA Expert Team
5	17.12.2014	<u>3<sup>rd</sup> Counterpart Meeting</u> - Confirmation of the progress - Confirmation of the works to finalize the project - Confirmation of the Schedule	Participants: 30 - OCD - JICA Philippine office - JICA Expert team

Source: Expert Team

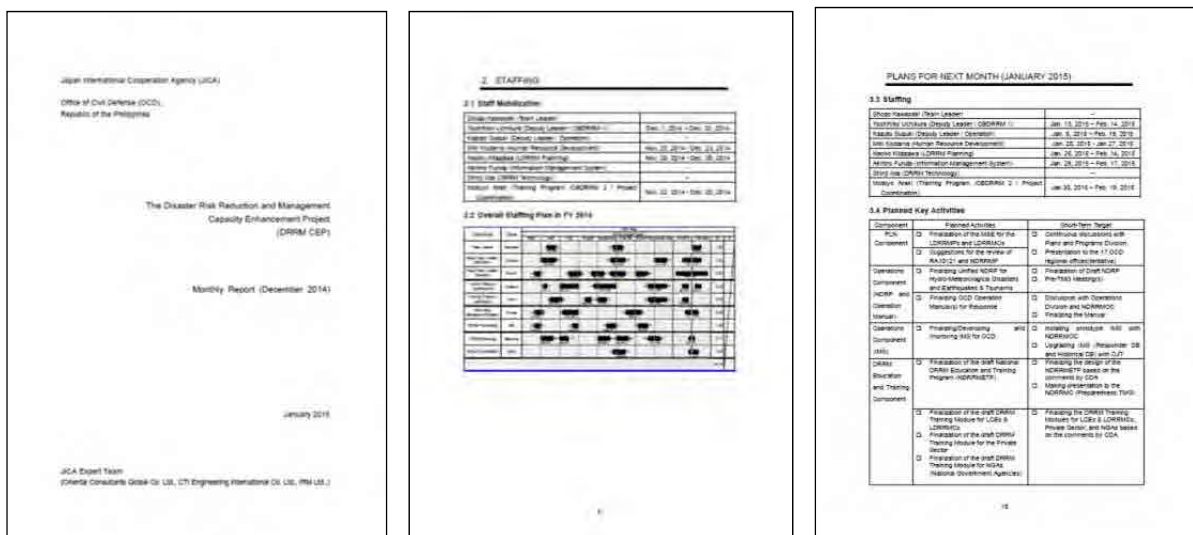


Source: Expert Team

Photo 2.7.1 Counterpart Meeting

## (2) Monthly Report

The monthly reports were prepared every month and distributed to the JICA Headquarters and the Philippines office and Counterparts. The major contents of the report were 1) Assignment of JICA experts, 2) Progress of the project, and 3) Action plan for the next month.



Source: Expert Team

Figure 2.7.1 Sample of the Monthly Report

## (3) PCM Workshop

The Project Cycle Management (PCM) workshop was conducted on February 24, 2014 in order to revise the Project Design Matrix (PDM) based on the recommendations by the mid-term review which was conducted in October 2013. About 20 people participated in the workshop from OCD (major counterparts), JICA Philippines Office, JICA Expert for OCD and JICA Expert Team.

The draft PDM was prepared by JICA Philippines Office by consolidating all answers collected, as well as the proposed PDM from the Expert Team, which was prepared at the end of the Mid-term Review. The draft PDM was explained at the workshop. Based on the draft PDM prepared by JICA Philippines Office, each component member discussed finalizing the indicators and activities for their

component. The final draft PDM was presented at the 6th JCC meeting, which was conducted on February 7, 2014, and was approved with some minor changes.



Source: Expert Team

Photo 2.7.2 PCM Workshop

#### (4) Joint Coordination Committee

Joint Coordinating Committee (JCC) was held according to the following schedule

Table 2.7.2 List of JCC

1<sup>st</sup> Year

No.	Date	Major topics	Organizations
1	18.04.2012	<u>1<sup>st</sup> JCC</u> <ul style="list-style-type: none"> <li>- Commencement of Project</li> <li>- Approval of Work Plan</li> <li>- Working space for Expert Team</li> <li>- Information on JICA long term expert</li> </ul>	Participants: 29 <ul style="list-style-type: none"> <li>- OCD, NEDA, DSWD, DILG</li> <li>- PHIVOLCS, PAGASA</li> <li>- LPP, ULAP, LMP</li> <li>- Embassy of Japan</li> <li>- JICA HQ, Philippines Office</li> <li>- JICA Expert Team</li> </ul>
2	03.08.2012	<u>2<sup>nd</sup> JCC</u> <ul style="list-style-type: none"> <li>- Priority Areas and Detailed Activities</li> <li>- Modification of the Project Design Matrix (PDM)</li> <li>- Selection of Pilot Areas</li> <li>- Schedule of the Project in FY2012</li> <li>- Capacity Assessment</li> <li>- JICA Long-Term Expert</li> </ul>	Participants: 26 <ul style="list-style-type: none"> <li>- OCD, NEDA, DSWD, DILG</li> <li>- PHIVOLCS, PAGASA</li> <li>- LPP</li> <li>- Embassy of Japan</li> <li>- JICA HQ, Philippines Office</li> <li>- JICA Expert Team</li> </ul>
3	14.11.2012	<u>3<sup>rd</sup> JCC</u> <ul style="list-style-type: none"> <li>- Progress of the Project</li> <li>- Development of information Management System</li> <li>- Selection of Pilot Areas for verification of the CBDRRM guideline</li> <li>- Schedule of the Project in FY2012</li> </ul>	Participants: 32 <ul style="list-style-type: none"> <li>- OCD, NEDA, DILG</li> <li>- PHIVOLCS, PAGASA</li> <li>- LPP, ULAP, LMP</li> <li>- Embassy of Japan</li> <li>- JICA HQ, Philippines Office</li> <li>- JICA Long-Term Expert</li> <li>- JICA Expert Team</li> </ul>
4	22.02.2013	<u>4<sup>th</sup> JCC</u> <ul style="list-style-type: none"> <li>- Progress of the Project</li> <li>- Plan of 2nd Year Activity</li> <li>- Proposal of 2nd Year Activity for CBDRRM component</li> </ul>	Participants: 37 <ul style="list-style-type: none"> <li>- OCD, DSWD, NEDA</li> <li>- PHIVOLCS</li> <li>- LPP</li> <li>- JICA Philippines Office</li> <li>- JICA Long-Term Expert</li> <li>- JICA Expert Team</li> </ul>

2<sup>nd</sup> Year

No.	Date	Major topics	Organizations
1	18.10.2013	<u>5<sup>th</sup> JCC</u> - Mid-term Review	- OCD - JICA Expert Team - JICA Philippines Office - Mid-term Review Team - JCC members
2	07.02.2014	<u>6<sup>th</sup> JCC</u> - Progress of activities - Plans of activities for the 3rd year - Approval of revised PDM	Participants: 39 - OCD - JICA Expert Team - JICA Philippines Office - Embassy of Japan - JCC members

3<sup>rd</sup> Year

No.	Date	Major topics	Organizations
1	20.08.2014	<u>7<sup>th</sup> JCC</u> - Progress of activities in 3rd Year - Sharing the activities for each component - Discussion of next activities	Participants: 34 - OCD, NEDA, DSWD, DILG - PHIVOLCS, PAGASA, LPP - JICA Expert Team - JICA Philippine Office - JICA long term Expert
2	10.10.2014	<u>8<sup>th</sup> JCC</u> - Explanation of contents of terminal evaluation - Agreement on the contents of the evaluation report	Participants: 36 - OCD, NEDA, DSWD, DILG - PHIVOLCS, PAGASA, LPP - JICA Expert Team - JICA Philippine Office - JICA long term Expert
3	12.02.2015	<u>9<sup>th</sup> JCC</u> - Sharing final outputs - Discussion of further issues	Participants: 41 - OCD, NEDA, DSWD, DILG - PHIVOLCS, PAGASA, LPP - JICA Expert Team - JICA Philippine Office - JICA long term Expert - Japanese Embassy

Source: Expert Team



Source: Expert Team

Photo 2.7.3 JCC

**(5) Newsletter**

The Newsletters were prepared to share the progress of the project with counterparts and to introduce project activities to the other organizations.

Table 2.7.3 News Letter

No.	Date of issue	Contents
1	10.04.2012	- Commencement of Project - Comment from OCD - Implementing Structure
2	05.06.2012	- Counterpart Meeting - Fact Finding Visits - Introduction of the Project Team
3	20.08.2012	- The 2nd JCC Meeting - Project Component and Detailed Activities
4	17.10.2012	- Development of the NDRP - Progressing of the NDRP Development - Introduction of the Project Team (II)
5	16.11.2012	- The 3rd JCC Meeting - Summary of Progress
6	09.01.2012	- Appreciation from DRRMCEP Team
7	25.02.2013	- New OCDA commits full collaboration with JICA DRRMCEP - The 4th JCC Meeting
8	15.07.2013	- Kick-off Meeting - Counterpart Training Program in Japan
9	09.09.2013	- HRD Component: OCD Capacity Enhancement Training (Advanced Course)
10	29.10.2013	- Operations Component: NDRP - Mid-Term Review
11	22.01.2014	- CBDRRM Component: Writeshop for Basic CBDRRM Guideline and Guiding Policy - Disaster preparedness and early warning information in Visayas during Typhoon Yolanda
12	16.06.2014	- Kick-off meeting of final year - Approval of NDRP - Result of counterpart training in Japan

Source: Expert Team



Source: Expert Team

Figure 2.7.2 Sample Newsletter

## Chapter 3 Achievement of Project Purpose

### 3.1 Summary of Terminal Evaluation

The terminal evaluation was conducted from September 22 to October 10, 2014. The objectives of the terminal evaluation are shown as follows:

- ♦ To confirm the actual inputs and activities, implementation process, the degree of achievements of the outputs, and the prospects of achieving the project purpose and overall goals according to PDM
- ♦ To assess the Project from the five evaluation criteria – Relevance, Effectiveness, Efficiency, Impact, and Sustainability – based on the JICA’s guidelines for project evaluation
- ♦ To make recommendations on measures to be taken during and beyond the remaining cooperation period in consultation with agencies concerned, and draw lessons that can be learned from the project experience for planning and implementing similar technical cooperation projects in the future

The level of achievement was assessed based on the Indicators of the PDM. Among the 14 indicators set at the output level, the Project had almost achieved 5 indicators, partially achieved 8 indicators, and hardly achieved 1 indicator.

Table 3.1.1 Level of Achievement (at the time of terminal evaluation)

No	Indicators	Result of Assessment	
1-1	Suggestions for Sunset Review of RA 10121 and improvement of NDRRMP on LGU’s DRRM activities based on project experiences are prepared.	Hardly Achieved	Suggestions have yet to be developed.
1-2	RDRRMPs at all Regions (17 Regions) are formulated and approved.	Almost Achieved	All RDRRMPs were approved except for the one for NCR.
1-3	LDRRMPs for pilot LGUs in Region II are formulated and approved.	Almost Achieved	The drafts of all four LDRRMPs were finalized, and the local DRRM Council already approved three of them.
1-4	Monitoring tools/sheets of LDRRMPs and LDRRMOs for LGUs is developed.	Partially Achieved	Checklist and Assessment Form is yet to be pilot-tested, consulted, and finalized.
2-1	NDRPs for Hydro-Meteorological, Earthquake and Tsunami Disasters are approved.	Partially Achieved	NDRP for Hydro-Meteorological Disaster was approved, while NDRP on Earthquake and Tsunami is yet to be developed.
2-2	OCD Operations Manual for Response is approved.	Partially Achieved	Draft OCD Operations Manuals were developed which is applicable to the current OCD structure.
2-3	IMS (Databases of Responder, Incident, and Historical Disaster) at the Central and Regional Offices is approved.	Partially Achieved	IMS needs to be substantiated, improved, and approved.
2-4	24 ICT staff are trained for IMS. (CO: 7 and ROs 17)	Partially Achieved	More trainings are planned, in particular for ROs.
2-5	Drills for NDRP, Operations Manual, and IMS are implemented.	Partially Achieved	Another drill is scheduled in November 2014.

No	Indicators	Result of Assessment	
3-1	NDRRMETP is finalized and approved by the OCD top management.	Partially Achieved	NDRRMETP needs to be substantiated, finalized and approved. (Draft design was already approved by CDA in July 2014.)
3-2	Priority training modules for DRRM TIs are finalized and approved by the OCD.	Almost Achieved	Four training modules need to be finalized and approved.
3-3	Civil Defense Education and Training Program is developed and approved by OCD top management.	Almost Achieved	CDETP needs to be finalized and approved. (Draft design was already approved by CDA in July 2014.)
4-1	The CBDRRM National Policy (Concept Paper), Basic Instructor's Guide, and Training Course are presented to NDRRMC TMG-Preparedness for finalization and approved by the Chairperson of NDRRMC.	Almost Achieved	Draft Concept Paper and pilot-tested Basic Instructor's Guide (including training course) need to be finalized and approved.
4-2	Action plan to implement and monitor/evaluate CBDRRM activities are prepared for/by the national and regional levels.	Partially Achieved	Action Plan as a part of the Concept Paper which is for the final presentation to the full TMG for Disaster Preparedness and translation to NDRRMC Policy

Source: Terminal Evaluation Report

The level of achievement of the project purpose at the time of the terminal evaluation is as follows.

Table 3.1.2 Level of Achievement (at the time of terminal evaluation)

No	Indicators	Result of Assessment	
1	Plans, manuals and guidelines prepared through the project are authorized.	Partially Achieved	As summarized in the table below.
2	Concepts, systems, and programs prepared through the project are ready for operation.	Partially Achieved	As summarized in the table below.

Source: Terminal Evaluation Report

The tables below summarize whether the plans, manuals, and guidelines prepared through the project are authorized or not, and if the concepts, systems, and programs prepared through the project are ready for operation or not.

Table 3.1.3 Authorized Project Outputs (at the time of terminal evaluation)

	Already Authorized	Yet to be Authorized
Output 1	<ol style="list-style-type: none"> <li>1. Regional DRRM Plan of Region-II</li> <li>2. Isabela Province DRRM Plan</li> <li>3. Ilagan City DRRM Plan</li> <li>4. Alcala Municipality DRRM Plan</li> <li>5. Regional DPPM Plans of other 15 regions</li> </ol>	<ol style="list-style-type: none"> <li>1. Cagayan Province DRRM Plan</li> <li>2. Checklist and Assessment Form (M&amp;E tool)</li> </ol>
Output 2	<ol style="list-style-type: none"> <li>6. NDRP on Hydro-meteorological Disaster</li> </ol>	<ol style="list-style-type: none"> <li>3. NDRP on Earthquake and Tsunami</li> <li>4. OCD Operations Manual for Response</li> </ol>
Output 3	-	<ol style="list-style-type: none"> <li>5. National DRRM Education and Training Program (Its draft design was already approved.)</li> <li>6. Four priority training modules for DRRM TIs</li> <li>7. Civil Defense Education and Training Program (Its draft design was already approved.)</li> </ol>
Output 4	-	<ol style="list-style-type: none"> <li>8. Concept Paper of CBDRRM National Policy</li> <li>9. Basic Instructor's Guide</li> <li>10. Action Plan for CBDRRM activities</li> </ol>

Source: Terminal Evaluation Report

Table 3.1.4 Project Outputs Ready for Operation (at the time of terminal evaluation)

	Ready for Operation	Yet to be made Ready
Output 1	-	1. Checklist and Assessment Form (M&E tool)
Output 2	1. OCD Operations Manual 2. IMS (Information Management System) 3. New cluster groupings (in NDRP)	-
Output 3	4. Four priority training modules for DRRM TIs	2. Civil Defense Education and Training Program
Output 4	-	3. Concept Paper of CBDRRM National Policy

Source: Terminal Evaluation Report

The recommendations made in the terminal evaluation are shown below:

- ◆ Completion of remaining project activities
- ◆ Follow-up and monitoring the approval of outputs
- ◆ Continuous improvement of project outputs with the OCD's own initiative
- ◆ Extension and dissemination of good practices of the Project to other areas
- ◆ Strengthening of technical capacity of the OCD
- ◆ Promoting coordination of disaster-related organizations
- ◆ Localizing the outputs/results of the Project on DRRM activities
- ◆ Ensuring appropriate number of staff



### 3.2 Achievement of Project Purpose

The level of achievement of the indicators shown in the PDM is shown in the table below (at the end of the Project, as of 31 January 2015). Both the project purpose and the achievements of each output have been already achieved or almost achieved. Regarding some of the activities which have not been achieved yet, their products have been already prepared and are waiting for the approval by NDRRMC or CDA. An early approval is expected.

Table 3.2.1 Level of Achievement (at the end of the project)

No	Indicators	Result of Assessment	
1-1	Suggestions for Sunset Review of RA 10121 and improvement of NDRRMP on LGU's DRRM activities based on project experiences are prepared.	Achieved	-
1-2	RDRRMPs at all Regions (17 Regions) are formulated and approved.	Almost Achieved	All RDRRMPs were approved except for the one for the NCR.
1-3	LDRRMPs for pilot LGUs in Region II are formulated and approved.	Almost Achieved	All four plans were developed, and three of them were already approved except for the one for Cagayan Province.
1-4	Monitoring tools/sheet of LDRRMPs and LDRRMOs for LGUs is developed.	Achieved	-
2-1	NDRPs for Hydro-Meteorological, Earthquake, and Tsunami Disasters are approved.	Almost Achieved	NDRP for Earthquake and Tsunami Disaster is developed and waiting for approval.
2-2	The OCD Operations Manual for Response is approved.	Almost Achieved	The manual is developed and waiting for approval.
2-3	IMS (Databases of Responder, Incident and Historical Disaster) at the Central and Regional Offices is approved.	Almost Achieved	IMS is developed and waiting for approval.
2-4	24 ICT staffs are trained for IMS. (CO: 7 and ROs 17)	Achieved	-
2-5	Drills for NDRP, Operations Manual and IMS are implemented.	Achieved	-
3-1	NDRRMETP is finalized and approved by the OCD top management.	Achieved	-
3-2	Priority training modules for DRRM TIs are finalized and approved by OCD.	Achieved	-
3-3	Civil Defense Education and Training Program is developed and approved by the OCD top management.	Achieved	-
4-1	CBDRRM National Policy (Concept Paper), Basic Instructor's Guide, and Training Course are presented to NDRRMC TMG-Preparedness for finalization and are approved by the Chairperson of NDRRMC.	Almost Achieved	The concept paper is prepared, but the national policy is waiting to be prepared and approved.
4-2	Action plan to implement and monitor/evaluate CBDRRM activities are prepared for/by the national and regional levels.	Almost Achieved	The budget for the activity is secured, but the action plan is not yet integrated into the national policy to be approved.

Source: Expert Team

The level of the achievement at the end of the Project is shown in the table below.

Table 3.2.2 Level of Achievement (at the end of the project)

No	Indicators	Result of Assessment	
1	Plans, manuals, and guidelines prepared through the project are authorized.	Almost Achieved	As summarized in the table below.
2	Concepts, systems, and programs prepared through the project are ready for operation.	Achieved	-

Source: Expert Team

The tables below summarize whether the plans, manuals, and guidelines prepared through the project are authorized or not, and if the concepts, systems, and programs prepared through the project are ready for operation or not.

Table 3.2.3 Authorized Project Outputs (at the end of the project)

	Already Authorized	Yet to be Authorized
Output 1	1. Regional DRRM Plan of Region-II 2. Isabela Province DRRM Plan 3. Ilagan City DRRM Plan 4. Alcala Municipality DRRM Plan 5. Regional DPPM Plans of other 15 regions 6. Checklist and Assessment Form (M&E tool)	1. Cagayan Province DRRM Plan
Output 2	7. NDRP on Hydro-meteorological Disaster	2. NDRP on Earthquake and Tsunami 3. OCD Operations Manual for Response
Output 3	8. National DRRM Education and Training Program 9. Four priority training modules for DRRM TIs 10. Civil Defense Education and Training Program	-
Output 4	-	4. Concept Paper of CBDRRM National Policy 5. Basic Instructor's Guide 6. Action Plan for CBDRRM activities

Source: Expert Team

Table 3.2.4 Project Outputs Ready for Operation (at the end of the project)

	Ready for Operation	Yet to be made Ready
Output 1	1. Checklist and Assessment Form (M&E tool)	-
Output 2	2. OCD Operations Manual 3. IMS (Information Management System) 4. New cluster groupings (in NDRP)	-
Output 3	5. Four priority training modules for DRRM TIs 6. Civil Defense Education and Training Program	-
Output 4	7. Concept Paper of CBDRRM National Policy	-

Source: Expert Team

## Chapter 4 Challenges, Efforts, and Lessons Learned for Project Implementation and Challenges and Recommendations for Future

Section 4.1 shows the challenges faced during Project implementation, the efforts taken by the Philippine side and Japanese side to solve the challenges, and the lessons learned based on such challenges and efforts. The challenges and the recommendations for the implementation of similar projects are also described.

Sections 4.2 to 4.5 show the challenges, the efforts and the lessons learned for each output. The challenges and the recommendations in order to sustain and improve the Project activities are also described.

### 4.1 Overall Project

#### 4.1.1 Challenges, Efforts and Lessons Learned for Project Implementation

##### **(1) Challenges and Efforts for Project Implementation**

###### **1) Changes of the situation from the time of the Preparatory Survey**

A lot of DRRM activities have been conducted after the establishment of RA10121 in the Philippines. The preparatory survey was conducted for about two years (from February 2010 to November 2011) to decide the detailed contents of this project before starting the project. During the survey period, the preparation of the NDRRMP was one of the main activities in the project. However, the NDRRMP was prepared by the Philippines side during the period between the signing of R/D (October 2011) and the start of the project (March 2012). Therefore, the activities of the project had to be modified after the start of the project.

Originally, the details of the project activities were not decided and, due to the above reasons, the needs survey was conducted during the first four months of the project and the details of the project activities were decided based on the results of the needs survey without changing the final outputs.

It was a good practice to conduct the needs survey for four months at the beginning of the project because it is relatively difficult to change the original project activities for the standard technical cooperation project. The project could support the activities which were really necessary for OCD by this approach at the beginning of the project.

###### **2) Changes of condition and policy during the project period**

The role of OCD was increased significantly from the disaster response activities to the whole DRRM activities including the pre disaster activities based on RA10121. Therefore, OCD proposed the OSSP in order to expand the capacity of OCD and to fulfill the new roles on DRRM. The number of staff of OCD will be increased from 300 people at present to 1,500 people according to the OSSP. However, the OSSP has not yet been approved by DBM though it has already been approved by DND. The NDRRMTI, which is the training institute for DRRM specified in RA10121, was not established during the Project period, since the capacity enhancement of OCD based on the OSSP is necessary for its establishment. Because there were some activities that were planned based on the establishment of

NDRRMTI or some other activities that had to be reviewed based on the OSSP, the implementation of the Project was not easy.

In addition, because of the repeated disasters, the NDRRM Summit was suddenly conducted under the initiative of the President just before the commencement of the 2<sup>nd</sup> year activity (March 2013), and the deadline for the submission of LDRRMP was specified in the summit. Because of this limited time for the deadline, the schedule of Project activity had to be modified.

The Project Team tried to collect the latest information according to these changes of the conditions and tried to adjust the contents of Project activities and their schedules as much as possible.

### **3) Organizational and personnel change of the OCD**

The CDA of the OCD, who is the project director on R/D, has changed twice during the project period. The CDEXO, who is the project manager, has also changed twice, the third CDEXO has left and the position is currently vacant. There was an organizational change also at the end of the 1<sup>st</sup> year activity, and some of the main counterparts have also changed. It was difficult to secure the continuity of some of the project activities.

Under this situation, the OCD tried to secure the personnel for the project and nominated the chairperson of the project in addition to the CDA and CDEXO. The project team tried to explain the objectives, detailed contents, and their progress of the project activities to the new top management personnel and counterparts in OCD through the implementation of the monthly counterpart meeting. In addition, the project team tried to make the top management personnel understand the project by utilizing the counterpart training program in Japan.

### **4) Busy Schedule of OCD officials**

There were long rainy days and the typhoon Sendong during the first year of the project. There were the national and regional summits and the typhoon Yolanda during the second year. There were also typhoons Glenda and Ruby, Pope Francis, and the APEC during the third year. OCD officials had to spend their time on emergency operations. Although it is indispensable to enhance the physical capacity of OCD such as to increase the number of staffs based on the OSSP in order to fulfil the role OCD specified in RA10121, the OSSP has not been approved and the number of staffs of OCD have not been increased during the project period. Some of the project activities had to be conducted on the initiative of the expert team to some extent under such situations especially during emergency situations.

The supporting staff was employed by the expert team for each component in order to communicate with the busy counterparts and to provide necessary support to the activities, even when the Japanese expert was not in the Philippines.

### **5) Sustainability of Project Activity**

The project activities and its outputs are expected to be continued or utilized after the project. Therefore, the expert team tried to support the counterparts to conduct the activity by their own initiative instead of conducting the activity by the expert team.

The final goal of the activities were set to get approval from the NDRRMC, so that the outputs of the project will not be just the outputs of the project but the official plans, guidelines, and systems, in order to sustain the activity.

## **(2) Lessons Learned from the Implementation of the Project**

### **1) Flexible Implementation of Project Activity**

As is stated above, the conditions surrounding the project have been changed a lot. However, the project team has adjusted the activities and schedules to the changed conditions. It is important to clarify the goals and adjust the activities and schedule flexibility to achieve the goals.

### **2) Utilization of Mid-Term Review and Terminal Evaluation**

As stated above, OCD staff and its counterparts are very busy. Most of the counterparts for each output know the activities and progress they are responsible for; however, there are some counterparts who do not know about the project as a whole.

The mid-term review and the terminal evaluation require considerable time during the busy project activity for both the Japanese side and Philippines side. However, it is a good opportunity for the Philippines side to know the overall picture of the project and the progress of all the activities, and for the both sides to re-set the goals of each output to achieve according to the surrounding environment. It is an effective way to implement the project flexibly according to the latest conditions, and to review the progress and revise the project design if necessary based on the result of the mid-term review and the terminal evaluation.

## **4.1.2 Challenges and Recommendations for Implementation of Similar Project**

### **(1) Understand the Needs of Counterparts**

One of the best ways to formulate the new projects is that the Japanese side understands the needs of the counterparts and proposes the recommended activities, and the counterparts request the project officially based on the recommendation. In the case of this project, the needs of the Philippines side were understood and the contents of the activities, which could be supported by Japan, were discussed by taking a long time for the preparatory survey. And also, another four months were taken to finalize the detailed activities at the beginning of the project. This will be the ideal example of the project formulation.

### **(2) Secure the Personnel and Budget**

Generally, the necessary cost for the project implementation has to be owned by the Philippines side for the technical cooperation project. However, there are often cases where the necessary budget is not secured for the project because the budget is usually allocated based on the discussions a year before. Now, the counterparts know about the JICA technical cooperation project through the implementation of this project; therefore, the necessary budget and personnel should be secured for the next project. In order to secure the budget for the project activity, the schedule of the project can be adjusted in order to include the activity to discuss and acquire the budget for the actual project activity of the next year.

## 4.2 Output 1: Planning Component

### 4.2.1 Challenges, Efforts and Lessons Learned for Project Implementation

#### (1) Challenges and Efforts

##### 1) Formulate Local DRRM plans in a short time

The major activities of the planning component were conducted in Region 2. Region 2 was selected as a pilot region because of the high typhoon frequency, one of the selection criteria.

On the other hand, Local Chief Executives were requested to submit Local DRRM Plans by October 1 according to Memorandum Series No. 169 issued by OCD in March 2013.

To formulate four LDRRMPs in six months, the knowledge of the LGUs on comprehensive LDRRMP had to be acquired in a short time and OCD-R2 coordinated closely with the other regional offices to provide adequate lectures.

To efficiently conduct the expected activities, local staff teams stayed in the pilot areas to standby and efficiently coordinate between counterparts, related agencies, and Japanese experts.

##### 2) Involvement of Various agencies to monitor LDRRMPs and LDRRMOs

DILG is supervising the formulation of CDP and HURLB the formulation of CLUP. LGA is monitoring CCA.

At the local level, cities (excluding the independent cities) and municipalities are under the provincial government. Though the provincial offices are also LGUs, the review of the cities and municipalities seems to be difficult in some areas (some LGUs show resistance to review plans formulated by other LGUs).

Because the review of LDRRMPs and LDRRMOs involves various agencies from different levels of governance, the planning component consulted and convened related agencies to formulate realistic tools and processes.

#### (2) Lessons Learned

##### 1) The importance of counterparts' participation and transfer of ownership

One of the major outputs of the planning component was the development of a monitoring and evaluation system (review system). To achieve this output, the active participation of OCD-R2 was fundamental. Although it has limited personnel, OCD-R2 recognized the importance of the project and acted as a mediator between the LGUs and JICA-DRRM CEP and contributed considerably.

At the central level, the officers participated actively during the preparation of the monitoring system despite their heavy tasks and busy schedule. They are planning to share the outputs to all the OCD regional directors during the next Senior Leaders' Conference, prior to NDRRMC approval. In this way, it can be recognized that the ownership of the outputs was successfully transferred to the OCD and that the sustainability of activities after the project is almost guaranteed.

## **2) Importance to show a good sample**

Japanese experiences and practices were introduced during the workshops for the formulation of the CVRDRRMP and LDRRMPs. Some of these inputs (such as inter-LGU-coordination and coordination in the basin) were incorporated in each plan. Moreover, during the LDRRMP-Orientation workshop, the pilot LDRRMPs formulated during the Resilience project were also presented. One major accomplishment during the Cagayan LDRRMP orientation workshop was that all the LGU representatives agreed to formulate LDRRMP by following the template until the end of 2015.

The formulation of a comprehensive LDRRMP is a recent concept and only a few LGUs were able to formulate such plans. That is why the introduction of good samples that can be adopted by LGUs will be important to enhance the formulation of comprehensive LDRRMPs.

### **4.2.2 Challenges and Recommendations for Future**

#### **(1) Early approval of the review system**

The planning component developed a review system that will serve to provide basic information to analyze what to do to improve the quality of the LDRRMPs and to maintain or enhance the LDRRMOs' capacity.

However, the developed review system is still the internal system of the OCD. The OCD has to operate the system and explain its effectiveness and importance to the related agencies in order to get approval from NDRRMC and to monitor and evaluate the LDRRMPs and LDRRMOs efficiently in cooperation with LGU and DILG.

#### **(2) Re-diffusion of the LDRRMP template and conduct of training program**

The LDRRMP template was shared with the LGUs through the National and Regional DRRM summits. Because LGUs were not given enough time to formulate their LDRRMPs and because some Regional summits were postponed, the majority of the LDRRMPs submitted in 2013 and 2014 are not in compliance with the LDRRMP template.

In the near future, it is fundamental for the OCD to ensure the knowledge of the LGUs on the prescribed template and the "Local Disaster Risk Reduction and Management Plan Formulation Training Manual" by utilizing the LGU level summit etc. On the other hand, the training program to enhance the OCD central and regional officers on LDRRM Planning has to be considered to ensure appropriate and efficient technical support.

#### **(3) Strengthen coordination to revise the guidelines**

The Planning Component followed the process introduced in the "Local Disaster Risk Reduction and Management Plan Formulation Training Manual." However, it seems that at the present time, LGUs do not have enough skills or manpower to follow this process and to formulate a comprehensive LDRRMP in compliance with the LDRRMP prescribed by NDRRMC through OCD.

That is why the expert team suggests the OCD to identify the medium- and long-term objectives such as "all the LGU developed an LDRRMP in which XX% of the contents indicated by the LDRRMP

template/checklist are present until 20XX.” Based on these intermediate objectives, revision of the template, checklist and formulation manual must be held periodically by the OCD in coordination with related agencies and needs to be strengthened.

**(4) Maintain the transparency of the LDRRMF/Clarification of the LDRRMP purpose and ensure the monitoring of the actions cited in the LDRRMP**

As stated in RA10121 and JMC No2013-1, the “LDRRMP shall be the basis in the allocation of LDRRMF. The LGUs have to formulate and implement a comprehensive and integrated LDRRMP in accordance with the national, regional and provincial framework, and policies on disaster risk reduction in close coordination with the local development councils. It should encompass the four thematic areas of disaster risk reduction and management such as disaster prevention and mitigation, disaster preparedness, disaster response, and disaster rehabilitation and recovery.”

As explained previously, 90% of the LDRRMPs were reported as already formulated. However, the majority of the LDRRMPs collected during the pilot test are a simple matrix, similar to the annual LDRRM fund investment plan.

To ensure the transparency of the LDRRMF utilization, it is fundamental to clarify the definition and meaning of the LDRRMP. The DRRM vision and goals for the future and PPAs to implement in the next years have to be included in the LDRRMP and the release of the LDRRM Fund must be based on the list of the target PPAs cited in the LDRRMP.

The expert team suggests the OCD to communicate a clear definition and objective of the LDRRMP/difference between the LDRRMP and the LDRRMF investment plan to LGUs and to re-consider the qualification for the release of the LDRRMF in cooperation with DILG and DBM.

Then, the monitoring and evaluation of the implementation of the LDRRMP must be done. The steps for the Monitoring and Evaluation Process are indicated in the NDRRMP but it seems that this process is not followed at the local level because of the lack of concrete guidelines. In the future, a realistic and concrete monitoring and evaluation method for the implementation must be considered by the OCD and the reporting process to the respective Councils must be discussed by the OCD and DILG in order to be ensured to maintain the transparency of the LDRRMF.

**(5) Institutionalization of establishment of functional LDRRMOs**

To enhance the establishment of functional LDRRMOs, JMC 2014-1 was issued in April 2014. However, the actual situation is that because of the lack of manpower, skills, and budget resources, the LDRRMOs cannot be as operational as indicated in the memorandum and the budget allocated to LDRRMOs depends on the willingness and priorities of the Local Chief Executives.

That is why the expert team suggests DILG to mention the establishment of LDRRMOs also in the Local Government Code.

To enhance the functionality of LDRRMOs by providing adequate assistance, all the NDRRMC member agencies should share their expectations to LDRRMOs and clarify the role and responsibility of each agency.



**(6) Promote the use of science-based tools**

The technical agencies such as MGB, PHIVOLCS, PAGASA, and NAMRIA are providing risk maps/vulnerability maps, and disaster analysis reports. DRRM vision, outcomes, and PPAs (Project, Program Activities) must be identified on the analysis of the present situation and SWOC (Strengths, Weakness, Opportunities, and Challenges). However, the results of the pilot test demonstrated that the SWOC and risk profile and use of science-based knowledge were mentioned in only a few LDRRMPs.

In the future, the data provided by technical agencies will be more sophisticated, and methods to transmit information will be performed.

To ensure the use of the latest science-based tools during the LDRRMP formulation, the OCD has to discuss with NDRRMC members and implement methods to communicate these tools to LGUs/LDRRMOs and to guide them by providing technical assistance.

#### 4.3 Output 2: Operations Component

##### 4.3.1 Challenges, Efforts and Lessons Learned for Project Implementation

###### (1) Challenges and Efforts

###### 1) Positioning of the NDRP in Perspective under the Philippine DRRM Planning System

The formulation of the NDRP was selected as the main activity of Output-2 for the following reasons:

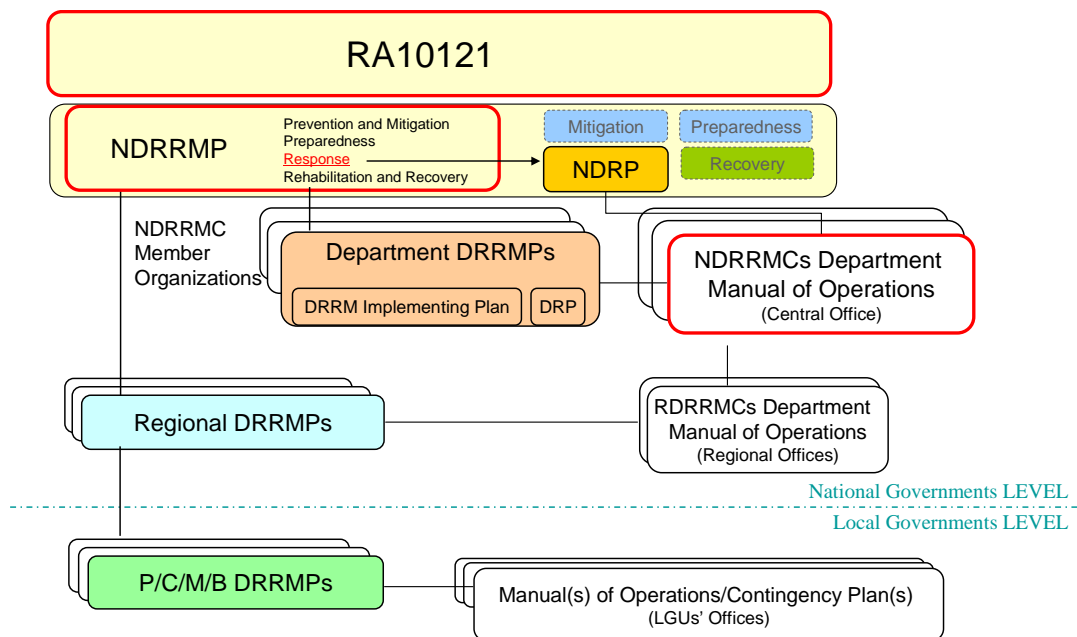
- ◆ Necessity of Updating/Creating Plans for Response Operation being currently utilized by related agencies/organizations since some offices/centers still utilize the Operation Plans under PD1566, (Imprecise Roles & Responsibilities for Related Agencies since there is no national preparedness and/or response plan under RA10121), and
- ◆ Consideration of Priority Projects in the NDRRMP in which developments of plans, guidelines and tools are specified, such as the National Disaster Response Plan, Guidelines on communications and information protocols, Guidelines on criteria/standards for a local flood early warning system, Guidelines on Evacuation, Manual of operations of disaster operations centers, and so on.

However, mutual understanding of the NDRP in perspective on Philippine DRRM Planning Policy/System has not been obtained among the NDRRMC member agencies.

In this connection, the JICA Team and OCD C/P formulated the NDRP together with the discussions of the NDRP in perspective on Philippine DRRM Planning Policy/System.

As a result, the Team recognized the position of the NDRP can be identified as follows:

- ◆ The NDRP is a strategic plan that should define the basic policy for the Response behind all manuals and guidelines to be prepared by each related agency as one of four (4) pillars of the Philippine DRRM System as Figure 4.3.1 illustrates below.



Source: NDRP and DRRM-CEP Team

Figure 4.3.1 Concept of Philippine DRRM Planning System (Draft)

This concept has been presented and discussed in every workshop and meeting for the formulation of the NDRP from the Team. In the discussions, what plan(s) should be formulated in the next step(s) or prioritized in accordance with envisioned Philippine DRRM Planning system.

## 2) Securing the Sustainable Improvement System of the NDRP and Operations Manual

A C/P Agency often fails to update, improve, use, and refer to several plans formulated under the programs and projects even though those are published and distributed.

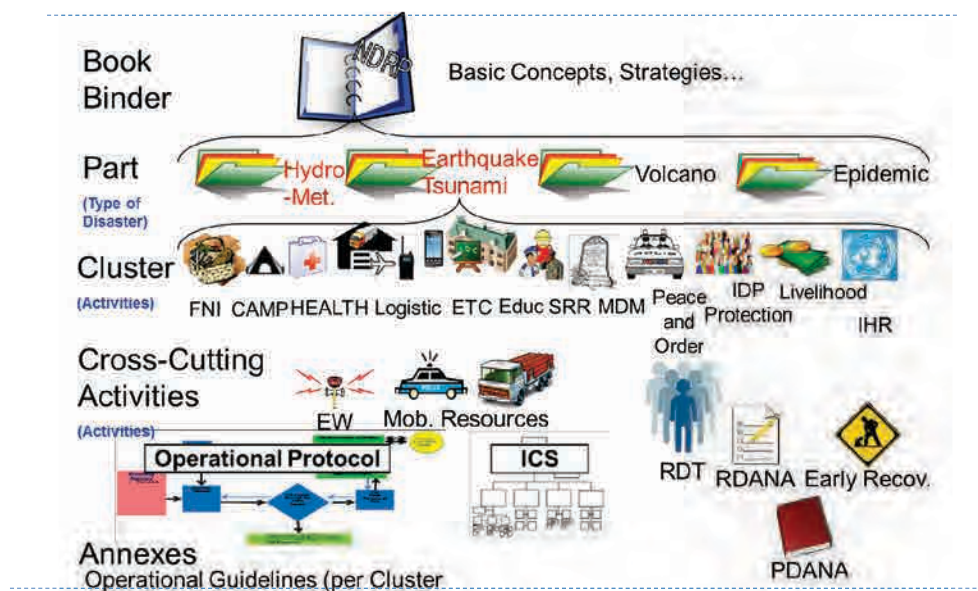
To avoid spoiling the efforts of the Project activities, the NDRP has been formulated based on the following concepts:

- ◆ Basic response operational concepts have been followed by current policies and approaches currently applied and lessons learned,
- ◆ Binding Book Type for the NDRP was selected as the final style since the NDRP should be revised and/or improved at suitable periodical intervals based on lessons learned from drills, exercises and/or every actual response operations for huge disasters, and
- ◆ Operational Protocols and/or actions to be taken by agencies/organizations in the NDRP are prepared by every type of disaster in terms of 1) easy revision and updating of the NDRP and 2) easy consistency between the NDRP and Guidelines/Manual to be prepared by other organizations including the contingency plans prepared by the LGUs.

2

7

## Configuration of the NDRP (Philippines)



Disaster Risk Reduction and Management Capacity Enhancement Project (DRRM CEP) 

Source: NDRP and the Team

Figure 4.3.2 Structural Contents of the NDRP

### **3) Securing Continuity of IMS Operations**

At the beginning term of the Project in 2012, the Team identified that some systems, especially the disaster information management system like EMIS, SAHANA, and CALAMIDAT.PH were no longer functioning for some reason.

So as to avoid failure of sustainable utilization of the IMS introduced by the Project, the following activities are included in the project activities:

- ◆ At the commencement of the development of the IMS, policies and concepts based on the essential and actual needs were discussed among the Team. After the clarification of what systems and modules are essentially needed, the system has been developed;
- ◆ In the project activities, several technical trainings were conducted on a step-by-step basis in terms of skills for IMS and GIS for both OCD-CO and OCD-RO staff. In addition, the Team has revised the concepts and modules of the IMS through these trainings;
- ◆ In order to develop human resources and clearly establish the skills for the operation of the IMS and GIS, exclusive manuals and modules for the OCD staff, such as “OCD IMS management manual for admin” and “Emergency responders module operation manual” have been prepared and developed for the OCD staff, especially for staff of the ITCS (CEIS), Operations Support Division, and NDRRMOC.

### **4) Enhancement of Utilization of the IMS and GIS as Common Tools in the OCD**

In the Project, IMS has been mainly developed for supporting the disaster response activities to standardize the operations through formulating the NDRP and OCD Operations Manual. It is clearly expected that these IMS developments can be utilized, sustained, and developed, judging from actual exercises during disaster operations. In addition, it is recommended that the OCD should improve the sophistication of the IMS not only for disaster response but also for other tasks, such as planning and training tasks.

In this connection, promotion and vitalization of the utilization of the IMS in the whole of the OCD has been considered in the Project as follows;

- ◆ Development of “OCD Training Database” including Name/Year of Trainings conducted with Trainees, Instructors, and other information under the HRD Component, and
- ◆ “Local DRRM Plans Monitoring and Evaluation Database” for Checking Local DRRM Plans for Completion and Local DRRM Office Information under PLANNING Component

As of February 2015, the Training Division of the OCD-CO has begun developing a Training Database to evaluate and monitor training activities by agencies and LGUs.

## **(2) Lessons Learned**

### **1) Necessity of Discussions about Planning and Lessons outside Japan**

One of the main purposes of JICA technical cooperation projects is to develop, enhance and strengthen capacity of C/P through activities designed and defined by PDM based on technical skills, knowledge and lessons from Japan. In the Project, it is confirmed that the Team should provide and

introduce C/P not only to techniques, skills, knowledge and lessons from Japan, but also those from the other countries. Throughout the activities in the Project, the Team has utilized plans and/or frameworks in other countries to develop the NDRP, such as the Disaster Response Framework by FEMA (US) and the disaster response plan prepared by UNDP for Pakistan as well as the basic disaster management plan of Japan. These plans and/or frameworks in other countries served as a useful reference to develop the NDRP. In the workshops involving other organizations, C/P facilitated the discussions about developing the NDRP through the use of plans and frameworks provided by the Team as a reference. The references from other countries as well as lessons from Japan supported the discussions and activities in the Project.

## **2) Collaboration with UN-OCHA**

UN-OCHA, other international humanitarian organizations and some INGOs were invited to every big workshop and write-shop to develop the NDRP in the Project. As a result, DFA, DepEd and DTI, which hesitated to participate in the meetings for the NDRP in 1st and 2nd Year of the Project, moved into action to join the workshops and meetings for the NDRP in the 3rd Year of the Project. One of reasons is that UN-OCHA applied pressure on them to join the activities in the Project.

In the Project, the Team collaborated effectively with UN-OCHA to develop the NDRP prior to the Agreement to further strengthen cooperation and collaboration in order to better address complex humanitarian needs including disaster risk management between JICA and UN-OCHA in July 2014.

Involvement of UN-OCHA in the activities of JICA technical cooperation projects related to disaster risk management should be considered upon analysis of the benefits and demerits with respect to each project.

### **4.3.2 Challenges and Recommendations for Future**

#### **(1) Updating and Development for Other Types of Disasters of the NDRP**

In the Project, the NDRP for Hydro-Meteorological Disasters and Earthquakes and Tsunamis has been formulated. However, there are other significantly concerned disasters in the Philippines, such as Volcanoes, Epidemics/Pandemics, and Human-induced Disasters. The response operations against these disasters shall be considered respectively due to those characteristics (the window of time from foretaste to occurrence, extent of damages, means of minimization, etc.). Hence, the OCD and NDRRMC shall be advised that the NDRP for other types of disasters are developed and formulated.

In addition, reviews on the NDRP were conducted through several exercises and workshops in and out of the Project. OCD, DSWD and NDRRMC shall be recommended to review and update the NDRP in the line of up-to-date systems based on experiences of the discussions by NDRRMC-TMG Meetings and methods supported by the Project. The review on the NDRP shall come up for discussion of the NDRRMC-TMG annually.

#### **(2) Cascading Down to Regions and LGUs of Concepts and Policies under the NDRP**

It is necessary to cascade the concepts and policies of the NDRP down to regions and LGUs in order to harmonize the disaster response operations between the National Organizations and LGUs. Response Systems that have already been institutionalized at the national level, namely PDRA,

RDANA and RDT/ Team NDRRMC described in the NDRP, are less well understood by the LGUs. It is essential for adequate collaboration and maximization of national response power against every disaster to let the LGUs know these concepts.

For this purpose, the OCD and NDRRMC shall take into account the following activities;

- ◆ Development of Training Module(s) of “National Disaster Response Concept” for LGUs,
- ◆ Distribution of the NDRP Policy and Concept through activities of “Project DINA” and/or “Project Batingaw,” and
- ◆ Other Education and Information Campaigns

**(3) Formulation of Other National Plan(s) based on the Philippine DRRM Planning Framework to be defined**

As described in the previous section [4.3.1 Issues, Approaches and Lessons Learned in Project Management], the Team has continued to recommend the necessity of envisioning the Philippine DRRM Planning Framework to the OCD and NDRRMC Member agencies throughout the project activities. It is still not clear what kind of plans the NDRP should formulate or prepare. Based on the proposed Philippine DRRM Planning by the JICA Expert Team shown in Figure 4.3.1, it should be discussed in the NDRRMC. In this regard, the Planning Service and Operations Service of the OCD in cooperation with other related organizations shall take the initiative of the discussion and advocate the establishment of the planning framework.

DILG has already commenced the formulation of the National Disaster Preparedness Plan as one of the key plans defining a direction of “Preparedness” in the Philippine DRRM System following the formulation of the NDRP. Subsequently, the OCD and Vice-Chairperson Agencies of four (4) pillars shall promptly take into consideration the following issues:

- ✓ The Necessity of Formulating a National Prevention & Mitigation Plan/Policy and National Rehabilitation & Recovery Plan/Policy,
- ✓ Clarification of the Relationship between the NDRP and Contingency Plan to be prepared by the LGUs,
- ✓ The Necessity of prioritization and Clarification of the BCP in the Private Sector and Area-BCP considering region-wide economic impacts and its mitigation against disasters in the Philippine DRRM System,

**(4) Continuing Development of an Information Management System of the OCD and Strengthening the Cooperation and Coordination System among NDRRMC Member Agencies**

The Team has developed the IMS and trained OCD Staff regarding the IMS and basic GIS skills in order to improve efficiency of current work and effective disaster response operations for OCD staff. In this connection, the OCD has strongly been recommended to continue IMS operation for more efficient operations. Moreover, the OCD has also been recommended to further develop the information management system and databases for more effective outputs to be generated through OCD Mandates. For these purposes, the following two (2) points shall be established by the OCD;

- ◆ Establishment of Methods for the Utilization of the IMS and Database for Improvement of Philippine DRRM activities, and
- ◆ Establishment of a Method and Purpose of Sharing Electrical Data among NDRRMC Members for Improvement of Philippine DRRM activities.

In the not-so-distant future,

- ✓ The OCD will construct a new NDRRMC Operations Center,
- ✓ PAGASA, PHIVOLCS will improve and highly develop the accuracy and dissemination system of their early warning predictions in line with the development of numerical calculations and information technology renovations in the world.

The OCD shall take great initiative of improvement of the Philippine DRRM System in terms of the communications system between the national government and Filipino people based on the advancement of basic communication technology. On the other hand, the OCD shall also be required to clarify the use of accumulated database and information as well as roles and responsibilities of the central government for the mechanism of data sharing and establishment of the database. This initiative taken by the OCD should include not only information about Disaster Response but also information regarding the other three pillars. The databases and information collected and accumulated will be utilized for the establishment of a new assessment method based on scientific approaches of the DRRM. The utilization of databases and accumulated information for hazard and risk assessment will also mark a turning point from qualitative assessment to quantitative assessment.

In order to enhance effective activities preventing and mitigating damage, accelerate prompt disaster preparedness and response activities, and assist efficient recovery and reconstruction, efforts for data sharing and integration among the NDRRMC Member agencies shall further be promoted. NAMRIA has currently established the “Philippine Geoportal” to share geo-spatial data with other national government agencies. In addition, DOST-ICTO (Information and Communications Technology Office) has also started a Web hosting service for national government agencies to provide them with greater security and robustness in Internet technology in accordance with E.O. No.39-2013 (July 2013). As a reference of sharing of geo-spatial data or integration of web hosting service by other agencies, it is important to carry out more in-depth discussions on the sophistication of cross-cutting information and data sharing and accumulation among the NDRRMC member agencies. The most essential thing on this matter is not to introduce a highly-developed and expensive system but to determine, in advance, key roles, responsibilities, manning, and mutual cooperative framework among the NDRRMC member agencies as well as specific purposes of the system by plan(s) and/or guideline(s).

#### 4.4 Output 3: DRRM Education and Training Component

##### 4.4.1 Challenges, Efforts and Lessons Learned for Project Implementation

###### **(1) Challenges and Efforts for Project Implementation**

###### **1) Coordination with the OCD Activities in a Transition Period**

With the enforcement of the RA10121 in 2010, OCD planned and conducted various initiatives and activities, including the activities relevant to the Output 3 activities in the Project. The Japanese expert team of the Project made it necessary to coordinate decisions for the Project activities with the counterparts at the beginning of the Project period; however, the team faced some difficulties coordinating with the OCD's activities in the first year of the Project for the following reasons and others: 1) progress of some of the OCD's activities had been slowing down or suspended due to financial limitation or others, and 2) chiefs of the counterpart divisions of Output 3, i.e., Education and Training Division and Human Resource Management and Development Division of the OCD, had been frequently changed. The Project activities had sometimes been extended to wait for the implementation of the OCD's activities which were behind schedule.

Along with the counterparts' awareness of the Project activities and deeper understanding of the system and the purpose of the Technical Cooperation Project through the 1<sup>st</sup> year of the Project, the Japanese expert team could further discuss and make close coordination for the revision of the activities with the counterparts at the beginning of the 2<sup>nd</sup> year of the Project. Through the discussion, the project activities were revised as necessary, in line with the OCD's activities.

###### **2) Delay of the Establishment of the NDRRMTI**

At the beginning of the Project, the activities for the establishment of the NDRRMI were vigorously conducted, including the setting up of the NDRRMC Working Committee on the Establishment of the DRRMTIs. Therefore, the DRRM-CEP team decided to support the activities of the Working Committee for achieving the project output. However, with the suspension of the activities of the Working Committee due to budget limitations and others, the team had to change the Project activities. Furthermore, due to the change of the chief of the Education and Training Division, the OCD decided to formulate the operation plan of the TIs by themselves, and the direct support activities for the formulation was excluded from the Project activities. With the delay of the approval of the OSSP which includes setting up of the NDRRMTI with allocation of the appropriate staff members, the proposed operational plan of the NDRRMTI was not drafted during the Project period.

In these circumstances, the expert team with counterparts deliberated and focused on how to realize nationwide expansion of the DRRM education and training and developed the NDRRMETP.

###### **3) Coordination with the Relevant Agencies for the Formulation of the NDRRMETP**

To formulate the NDRRMETP, the DRRM-CEP team set up a Technical Working Group (TWG) consisting of members from relevant agencies and discussed the development of the program in the TWG meetings. The participants from the member agencies in the TWG were frequently changed and new members attended many of the meetings on each occasion. The new members often did not get



the information from past discussions in the TWG meetings from their predecessors, which caused some duplication and repeating of the discussions.

In the middle of the activities of the second year, the team compiled some of the discussion results as a draft program. With this draft, the team visited the relevant agencies to get opinions and suggestions for improvement as well as distributing printed drafts for consideration. The efforts could make the discussion positive and forward-looking.

## **(2) Lessons Learned**

### **1) Utilization of an Advantage of the JICA Technical Cooperation Project**

The basic idea of the JICA Technical Cooperation Project is that the expert team supports the activities of the counterparts. OCD had no experience of the JICA Technical Cooperation Project before the DRRM-CEP, and the expert team could not have a clear understanding of the Project activities by the counterparts at the beginning. However, after the Project activities had been revised based on the situation of the OCD during the Project period and successfully coordinated with the OCD's activities at the beginning of the 2<sup>nd</sup> year of the Project, the counterparts recognized the Project activities were not extra work and provided technical support to their own activities. With this understanding, the Project activities were smoothly implemented. Flexible consideration and revision of the activities in the process of the Project for the organization, which was in a transition phase, made the Project activities more effective and practical.

### **2) Coordination with Various Agencies**

In the process of the development of the NDRRMETP, the team asked various relevant agencies to participate in the discussion of the Program or the implementation of the pilot test of the DRRM training courses. Through the direct coordination with the agencies, the team often received some useful information relevant to the OCD's activities, including the relevant activities of each agency on DRR training and education. Many agencies receive the support from external organizations, and sharing information among the agencies is important for avoiding duplication and overlapping of activities.

### **3) Group Discussion by the Participants for the Review of the Pilot Test of the Training Course**

At the beginning of the Project activities, the review by the participants of the pilot test of the training course was conducted via evaluation sheet. However, in the latter part of the Project period, the team decided to make time for a group discussion by the participants for the review of the training on the final day. The Project team members facilitated the discussion and compiled many good suggestions for improving the training course. The team recognized that the review by the evaluation sheet provided many opinions and suggestions according to individual needs; however, the group review provided more comprehensive and holistic opinions and suggestions for the improvement through the exchange of opinions among participants.

### **4) Program Development as Premises for Addition and Improvement**

Through the experiences of the disasters in each county, new knowledge and technical information to be learned for DRRM is increased and the system and efforts for the DRRM are changed. The DRRM education and training program needs to be improved and expanded according to these changes.

Through the experiences of response to the typhoon, the need for such consideration was discussed in the process and the programs were developed as living documents.

#### 4.4.2 Challenges and Recommendations for Future

##### **(1) Implementation of the DRRM Education and Training based on the NDRRMETP**

In the Project, the NDRRMETP was developed aiming at providing DRRM education and training for the nationwide DRRM stakeholders, and providing the basic policy to promote DRRM education and training in the whole of the Philippines. Meanwhile, under the condition that the establishment of the NDRRMTI is delayed and the program development was limited to the training for the first priority stakeholders, and the NDRRMETP is continuously improved, the following activities and efforts should be considered and conducted by the OCD/NDRRMTI.

##### **1) Official Establishment of the NDRRMTI**

The DND approved the proposed OSSP (Organization Structure and Staffing Pattern), which allocated NDRRMTI staff members, and is now being reviewed by the DBM (Department of Budget and Management). The OCD is planning to officially establish the NDRRMTI in 2016 and will resume the extensive discussion on the operational plan. They will start the implementation of the NDRRMETP even before the official establishment of the NDRRMTI, however, it is important to create a well-prepared organizational structure with the official establishment of the NDRRMTI for ensuring steady implementation of the Program. During a discussion in the last TWG workshop, the relevant organizations agreed to resume the NDRRMC Working Committee on the Establishment of DRRMTIs. The OCD is urged to take necessary actions to restart the activities for the establishment.

##### **2) Launching of the Priority DRRM Training Courses for the NDRRMETP**

The OCD is planning to conduct the final test run of the finalized DRRM training courses for four priority stakeholders with their budget of 2015 and officially launch the courses in July, National Disaster Consciousness month. For ensuring the nationwide rollout mentioned in the NDRRMETP, the OCD needs to launch the training courses as scheduled and enhance awareness of the expected learning service providers on the NDRRMETP. The OCD is recommended to get support of the media to widely introduce the necessity of the promotion of the DRRM education and training through the launching event, and to lead to the consideration of the LGUs to prepare the budget for the implementation of the education and training program.

##### **3) Monitoring, Review, and Improvement of the Training Courses**

To properly monitor the implementation and make reference for conducting future training courses, it is necessary to record and manage the data of the conducted trainings. It is recommended that the OCD/NDRRMTI fully utilizes the Training Database developed in the DRRM-CEP activities for recording the training data.

Furthermore, the OCD is requested to review the training courses conducted by themselves or other agencies, in order to improve the Program, training courses and modules on a regular basis.

#### **4) Close Coordination with the Relevant Agencies and Establishment of the Accreditation System for Learning Service Providers**

The NDRRMETP provides the DRRM training courses for the four priority stakeholders, i.e., LCEs, LDRRMCs, PSEs, Communities, and Private Sectors. And it designs the basic implementation scheme of the training courses based on the agreement with the relevant agencies. For ensuring the implementation of each course, active involvement and initiatives of the agencies are essential. The OCD has responsibilities to support and coordinate with the agencies to steadily conduct the training courses by monitoring and evaluating their trainings and holding a periodical coordination meeting to share and discuss challenges for the implementation of trainings etc.

The NDRRMETP plans to develop and introduce the Accreditation System for the learning service providers for the nationwide provision of the DRRM training courses. The OCD is planning to set up a TWG for formulating a guideline for the accreditation system and discussing the regulation and process for the accreditation. The OCD is expected to review and identify the roles of the agencies and organizations to conduct DRRM education and training throughout of the country in the discussion.

#### **5) Development of the DRRM Training Courses for the Other Stakeholders and Provision of the Specialized Technical Courses**

The preliminary draft NDRRMETP included the DRRM training courses for Media and Academe. However, in order to make the Program practical, in line with the OCD's activities for the establishment of the NDRRMTI, the finalized NDRRMETP only includes the courses for four priority stakeholders. In the future, the training courses for the other important DRRM stakeholders should be identified, developed and included in the Program by the OCD based on the experience in the Project, step by step.

Also, the specialized technical courses to learn specific DRRM techniques, such as Incident Command System, Contingency Planning, and Business Continuity Planning were excluded in the finalized NDRRMETP in order to focus on the basic and comprehensive DRRM training courses as a first step. In the future, the excluded specialized technical training courses should be reviewed and included in the Program by the OCD in cooperation with the related agencies.

#### **6) Clarification of the DRRM Education and Training Conducted by the OCD/NDRRMTI**

The IRR of the RA10121 prescribes the establishment of the DRRMTIs as OCD's Power and Function (Rule 7). And Rule 8 of the IRR stipulates the purposes of the NDRRMTIs: to train public and private individuals, both local and national, in such subjects as DRRM, to consolidate and prepare training materials and publications of DRRM books and manuals, to conduct periodic awareness and education programs to accommodate new elective officials and members of the LDRRMC and others. In the meanwhile, Outcome 8 of the NDRRMP (communities are equipped with necessary skills and capability to cope with the impacts of disasters) says the lead outcome coordination agency is DILG and the lead implementation agency is OCD. Further, in Outcome 9 of the NDRRMP (Increased DRRM and CCA capacity of Local DRRM Councils and Offices at all levels), the lead agency is only DILG and the OCD is not included even as an implementing partner. As such an example, the details for providing the DRRM education and training by OCD/NDRRMTI are vague in the IRR and

NDRRM, and do not clearly describe which levels (National and Local) and which stakeholders are their responsibility. .

For the nationwide rollout of the DRRM education and training, it is necessary for the OCD and the related agencies to clarify the detailed roles of relevant agencies such as the DILG which has responsibility for capacity development of the LGUs, the CSC which is mandated to provide a capacity development program to public sector employees, the DTI which has roles for capacity enhancement of the private sector and the DepED in the IRR (Implementing Rules and Regulations) of Republic Act No. 10121, and also to establish a stronger and more stable implementation system for DRRM education and training.

## **(2) Implementation of the DRRM Education and Training based on the CDETP on DRRM**

The program developed in the Project is a living document, which is considered to be continuously improved and revised based on the experiences of the implementation of the training. Therefore, the following activities and efforts should be implemented by the initiative of OCD accordingly.

### **1) Steady Implementation of the CDETP on DRRM with the Increase of Staff Members**

The number of OCD staff members is expected to rapidly increase with the final approval of the OSSP. The capacity enhancement of staff members will be a pressing task of the OCD. Enhancing the capacity of staff members in the Education and Training Division who are mandated to provide the training to the other staff should be conducted promptly.

### **2) Implementation of the Training Needs Assessment on a Regular Basis**

In the CDETP on DRRM, the number of the expected implementation of each training course is not described and the training should be provided based on the needs of the staff members. In view of this, it is very important to conduct the training needs assessment on a regular basis and to analyze the result of the assessment. The OCD is requested to conduct the training needs assessment utilizing the assessment tool developed in the DRRM-CEP activities and to secure the budget for the implementation of the training courses based on the needs analysis.

### **3) Review and Improvement of the Program**

In order to formulate the Program, a Working Committee consisting of some division chiefs and regional directors in the OCD was set up. In the Committee, the members could discuss how to effectively provide the DRRM training for the OCD staff members based on the issues and challenges which each division and regional office faced. The OCD is recommended to continuously conduct the activities of the Committee as a venue for discussing the effective implementation, review, and improvement of the CDETP on DRRM.

### **4) Management of the Training Data**

Currently, the data of the training for each individual is not properly managed in the OCD. Therefore, it is difficult to say training courses are provided properly to all those who need training. The utilization of the training database developed in the DRRM-CEP activities will help the easy management of the training data for the OCD.

The OCD is requested to manage the training data, select the target participants of the training based on the records, and make the training more effective by leveling the participants of each course.

**5) Integration of the Capacity Enhancement Program in Other Competencies**

At the time of the start of the Project, the AUSAID planned to support the capacity enhancement of the competencies other than the DRRM related capacities. However, the AUSAID program just identified the competencies and did not provide a specific capacity enhancement program. Therefore, the program for the capacity enhancement of such competencies is still under development. While capacities for planning and policy review are important for the OCD staff members who are mandated to conduct/support DRRM planning, monitor and evaluate DRRM activities, and analyze and evaluate DRRM policy, the Committee for formulation of the CDETP on DRRM determined that the Program should consider such competencies as a part of the Program in the future. The consideration of the capacity enhancement of such competencies should be made in line with the progress of the development of the capacity enhancement program for other competencies by the HRMDD (the Human Resource Management and Development Division).

**(3) Development of the Effective Educational Materials and Tools for DRRM Education and Training**

Rule 8 of the IRR of the RA10121 stipulates the NDRRMTI is established to conduct research programs to upgrade knowledge and skills and document best practices on DRRM. However, currently the OCD does not conduct the research and analysis in a systematic way and keep the record of past disaster experiences as analytical documents. In the pilot tests of the DRRM training courses conducted in the Project, limitation of the educational materials based on the past disaster information and experience are raised as an issue in the evaluation. Therefore, the OCD is recommended to systematically analyze and compile past disaster information, good practices, and lessons learned from past disaster experiences. Furthermore, the development of educational materials and tools based on analysis and compilation of said data should be considered. Some of the OCD staffs already know about the education materials and tools in Japan through the Project activity and the training program in Japan, and are ready to utilize this knowledge.

## 4.5 Output 4: CBDRRM Component

### 4.5.1 Challenges, Efforts and Lessons Learned for Project Implementation

#### (1) Challenges and Efforts

##### 1) Collection of Comments from Related Agencies

The Concept Paper and the Training Course/Guidelines were prepared in cooperation with the JICA Expert Team and the counterparts of the OCD. However, the comments and opinions from related agencies, including the LGUs, are very important since the implementation of the CBDRRM activity is related to many agencies.

Several workshops were conducted to collect comments from the related agencies on the guidelines. However, the draft guidelines were sent to them to collect comments, since some of the agencies could not participate in the workshops. Although not so many comments could be collected at first, many agencies made comments when the guidelines were almost completed. They requested the project team include their own guidelines or descriptions from their specialties.

It was decided to include the descriptions of specialized fields as an annexure of the guidelines since there is the idea that only minimum requirements were described in the guidelines.

##### 2) Limitation of the Pilot Test

There was a query regarding whether the objective could be achieved by the pilot test at only one location, since the objective of the pilot test is to confirm the validity and finalize the TOT system and guidelines. Some counterparts said that the pilot test should be conducted at various places, because the budget scale, human resources, capacity, etc., vary greatly depending on the LGUs.

However, since the budget and time were both limited, for the pilot area, a flood-prone area was selected to cover the most frequent disaster area in the Philippines and one province, one city, and one municipality were selected to cover the difference of budgetary scale, in order to secure the generality.

It was explained to the counterpart members that the confirming validity of the TOT system and the guidelines should not be ended by this pilot test. Monitoring, evaluation, and improvement of the TOT system and the guidelines must be continuous.

#### (2) Lessons Learned

##### 1) Formulation of Images through Actual Activity

It is sometimes difficult to support the counterparts in conducting project activities if there is no practical idea for the outputs of the project activities. One of the challenges of technical cooperation projects is to make the counterparts understand the importance of the outputs and to create the image of the outputs together with the counterparts.

In the case of this Project, there were several "Systems" to be developed as the outputs of Project activities. However, it took some time to make the counterparts understand the importance of some of the systems. Therefore, it took some time to achieve the outputs. However, if it is difficult to make the counterparts understand what they need to do, it is better to take more time for this process, because it

is the most important process in a technical cooperation project and it will often be the case in the developing countries.

## **2) Implementation of Activity on the Initiative of Counterparts**

Some of the activities of JICA Technical Cooperation Projects all over the world are conducted on the initiative of Japanese Experts. Often, the counterpart agency is very busy due to a lack of personnel compared with their mandate, like the OCD is. However, in the case of output 4 of this project, the counterparts conducted their activity very actively for the pilot test. The counterparts also prepared the materials and explained the Concept Paper and the guidelines by their initiatives during the Technical Management Group (TMG) meeting for Preparedness in the NDRRMC. They are also preparing a National Policy by themselves, and they have already secured the budget for printing the guidelines. It is obvious that the counterparts conduct the activity aggressively if they really feel the necessity of the activity, meaning, it is also obvious and important for JICA to support activities for which the counterparts really need technical assistance.

### **4.5.2 Challenges and Recommendations for Future**

The challenges and recommendations (Short Term) are described in (1) and (2) shown below.

#### **(1) Early Approval and Publicity of Training Course/Guidelines and National Policy including the Action Plan**

The OCD has already secured the budget for TOT activities to be conducted by the OCD central office and regional offices in 2015. On the other hand, most of the LGUs, including the Barangays, do not know about the National Policy and it means they have not secured a budget. Therefore, it is necessary to finalize the National Policy to get approval from the NDRRMC and to disseminate it to all over the Philippines by utilizing the Joint Memorandum Circular (JMC), etc., as soon as possible.

#### **(2) Monitoring, Evaluation, and Promotion of the CBDRRM Activity**

After the approval and dissemination of the National Policy, the OCD will direct the OCD regional offices and the RDRRMCs to implement and promote the CBDRRM activity nationwide, through the TOT activity for regional levels. It is necessary to describe the CBDRRM activity on the DRRMP and budget it for DRRMF at each level in order to implement the CBDRRM activity nationwide. The OCD will monitor and promote the CBDRRM activities by the LGUs by utilizing the review tool (Output 1) and the database (Output 4)

The challenges and recommendations (Mid- Long Term) are described in (3), (4), and (5) shown below.

#### **(3) Clarification of Role Allocation for CBDRRM Activities**

The main actor of the CBDRRM activity is the LGU (LDRRMO). It is easy to understand that the DILG and LGA, which have responsibility to manage and train the LGUs, will support the LGUs for the CBDRRM activity also. On the other hand, as is shown in the 4.4.2, the role allocation of DILG and OCD is not clear.

The Concept Paper shows the role allocation of NGAs and LGUs. Based on the concept paper, the role allocation of the related agencies for CBDRRM activity should be re-considered and reflected in RA10121 or the NDRRMP by OCD in cooperation with the related agencies.

**(4) Contents of the DRRMP at Barangay Level**

The template of the LDRRMP is already defined, but the contents are wide ranging, and the knowledge on DRRM and the advanced capacity are required for planning. Therefore, it is difficult for the Barangay-level officers to prepare their DRRMP following the present template.

Realistically, the community level action plan, which will be prepared during the CBDRRM activity, will be the basis of the Barangay-level DRRMP. However, the contents of the Barangay level DRRMP should be discussed and its guidelines should be prepared by the OCD and DILG in order to prepare the effective plan efficiently.

**(5) Advanced CBDRRM Activity**

The project supported to prepare the guidelines that explain the basic knowledge and activities of the DRRM in order to promote the basic CBDRRM activity nationwide. However, there have already been some LGUs and communities who have more awareness, knowledge, and skills regarding the DRRM around the areas vulnerable to disasters. The other guidelines, which show more advanced CBDRRM activity, will be effective for such LGUs and communities. The OCD should discuss the contents of such guidelines.

The actual advanced CBDRRM activities by such LGUs and communities should be recorded by the OCD and shared with other LGUs and communities as good practices.



## Chapter 5 Recommendations to Achieve Overall Goal

The challenges, countermeasures, and lessons learned for the project implementation, and the challenges and recommendations to sustain, improve, and promote the project activities of each output after the project are described in chapter 4.

The overall goal of the project defined in the PDM is “DRRM activities conducted by organizations of the Government of the Philippines are improved.” At the beginning of chapter 5 (section 5.1), issues and lessons learned of the DRRM activities, which are significant based on the experiences of recent disasters, in particular the disaster that occurred in November 2013 (Yolanda Disaster), are also extracted as the recommendations and considerations to attain the overall goal. Subsequently, activities to date being tackled and carried out by the OCD and other related organizations to solve or mitigate the said issues and lessons learned through response and rehabilitation operations for the Yolanda Disaster are described. Remaining issues and further recommendations for which the NDRRMC member agencies have not started conducting activities are as follows.

In the next section (5.2), the final recommendations from the viewpoints of mid- and long-term perspectives are extracted based on the recommendations for each output described in chapter 4 and remaining issues and further recommendations.

### 5.1 Challenges and Recommendations from Recent Disasters

Typhoon Yolanda, which made landfall on November 08, 2013 in the surrounding area of Tacloban City in Leyte Island and crossed into the Visayas area of the Philippines, caused devastation to human lives and economic activities of the Visayas area. It caused 6,293 deaths, 1,061 missing persons and 28,689 injuries as well as serious economic impacts mainly in the Visayas area.

In the Project, the Team and staff members responded to every disaster operation, such as operations for Typhoon Pablo that hit the Mindanao in December 2012 (Pablo Disaster), Typhoon Ruby that also hit the Visayas in December 2014 (Ruby Disaster), Typhoon Seniang that hit the Mindanao in December 2014 (Seniang Disaster) as well as Yolanda Disaster, appropriately as ad-hoc project activities in reply to requests from OCD or voluntarily as listed in Table 5.1.1.

Table 5.1.1 Disaster Response Operations conducted by the Team during Project Period

Disaster	Term of Operations	Activities Conducted	Remarks
Pablo	2012/12/05~12/07	Participation in RDANA	Taking this opportunity, “Cluster Approach” as basic concept of the NDRP was concreated.
Yolanda	2013/11/08~12/31	Preparation of Disaster Situation Maps	IMS being developed in the Project was utilized in the activities.
	2013/11/13~11/14	Disaster Damage Inspection	Draft terms of reference for needs assessment by JICA were prepared.
	2013/11/26~12/31	Needs Assessment Study	Needs Assessment Team established in the Project submitted a report prepared separately.
Ruby	2014/12/03~12/12	Back-up Support and Support for preparation of Disaster Situation Maps	C/P took initiative to prepare maps.
Seniang	-	Back-up Support	The Team did not support response activities. Basically, C/P prepared maps by themselves.

Through the ad-hoc activities mentioned in Table 5.1.1 (in particular, response and needs assessment operations for the Yolanda Disaster), the Team recognized other issues covering Philippine DRRM in addition to issues grasped based on the original activities defined in the PDM. These issues and lessons learned from the Yolanda Disaster are described below. Activities addressing issues and lessons learned on earlier efforts to date with their effectiveness and recommendations based on issues remaining unsolved follow.

### **1. Issue on Yolanda-1: Disaster Scale and Extent could not be predicted in advance of Disaster**

#### **(1) Lesson Learned 1-1: Securing Information Communication about Intensity of Typhoon and Prediction of Storm Surge Disaster**

##### **1) Lesson Learned**

Typhoon Yolanda had decreased atmospheric pressure around its center up to 895 hPa 3 days prior to landfall. PAGASA continued to issue Severe Weather Bulletins at periodical intervals (every 12 hours) with devastating strong winds information (Maximum sustained winds of 225 kph near the center with gusts of up to 260 kph), expected rainfall amount within the 600 km diameter of the Yolanda (from 10–30 mm per hour (Heavy–Intense)), alerts against possible flashfloods and landslides for areas under signal #2 - #4 and alerts against storm surges reaching up to 7-meter high waves.

However, staff of LGUs and citizens were not fully aware of these continuous issuances regarding the furious intensity of Yolanda. In addition, according to several researchers and academe and media sources, most citizens did not know the meaning of “storm surge,” which was the dominant cause of death.

This fact has led to the following lessons:

- ◆ Warning Agencies should not only issue alert(s), but also convey expected phenomena to facilitate citizens in more understandable ways:
- ◆ Citizens shall be educated and enlightened about knowledge of disaster and DRRM.

##### **2) Addressing Lesson Learned and Effectiveness of Earlier Efforts**

NDRRMC/OCD has accelerated activities of Project “DINA” (Disaster Information for Nationwide Awareness) so that the public can gain disaster preparedness knowledge on what to do before, during and after the disasters through a number of audio–visual presentations (AVPs), which discuss DRRM topics, enabling the public to undergo online DRRM–related instruction, and spread the utilization of a smart-phone application “Batingaw,” which provides immediate access to disaster warnings, advisories, location data, and disaster mappings.

When viewed from different directions of the efforts by NDRRMC and OCD, response operations during the Ruby Disaster showcased the effectiveness of earlier efforts improving preparedness and response activities based on lessons from Yolanda. Three days prior to landfall of Typhoon Ruby, atmospheric pressure near the center recorded the lowest at 905 hPa. At that time, NDRRMC/OCD strongly advised pre-emptive evacuation to LCEs who administrate areas possible affected by Typhoon Ruby through all means of communications, such as fax, e-mail, SMS and media based on

Severe Weather Bulletins by PAGASA, which recognized the maximum sustained winds and gustiness of the center of Ruby were as same as Yolanda. Due to these strong advisories to LCEs, the number of pre-emptive evacuees to safer places reached more than 700 thousand and the number of deaths or missing persons due to Ruby was only 18, even though Ruby lost its strength and was at 935 hPa when it made landfall.

As for contribution by the Project on this matter, it is expected that databases, such as Responders DB as one of IMS developed by the Project, will be utilized in “Batingaw” and/or other data sharing platforms to convey DRRM information widely to citizens. In this connection, it is required that OCD should develop data sharing tools for all databases related to DRRM. Furthermore, it is essential to deliver DRRM knowledge to LCEs who should make decisions on DRRM, such as evacuation orders and proper incident management during emergencies. In this regard, the periodical and continuous conduct of Executive Course on DRRM for LCEs as one of training courses designated in the NDRRMETP in which pilot training sessions have been conducted in the Project contributes to earlier decision-making and prompt disaster response operations for mitigating damage due to the disaster.

It is strongly recommended that this training course (DRRM-L101: Executive Course on DRRM for LCEs) shall be conducted periodically so that each LGU receiving Alerts and Advisories from central governments will implement prompt preparedness and response actions to reduce the damage by the disaster.

**(2) Lesson Learned 1-2: Necessity of More Accurate Hazard Maps against Storm Surges and other disasters**

**1) Lesson Learned**

More than 7,000 people were killed or missing after typhoon Yolanda. One of the reasons for this vast damage is the lack of non-structural measures as shown below, in addition to the tremendous strength of the typhoon described above and the lack of structural measures, etc.

- ◆ There were few hazard maps for storm surges at the City or Municipal level, though the maps were available at the Provincial level. In addition, the actual area affected by typhoon Yolanda exceeded the estimated area in the hazard map remarkably.

This fact indicates that it is imperative for mitigating and/or preventing damage by disaster(s) to create more accurate and detailed hazard maps, and utilize hazard map(s) for preparedness and response activities more effectively, such as the implementation of evacuation drills/exercises and education/awareness campaigns utilizing hazard maps.

**2) Addressing Lesson Learned and Effectiveness of Earlier Efforts**

NDRRMC/OCD has initiated Pre-Disaster Risk Assessment (PDRA) to estimate the expected damage extent prior to the landfall of typhoons based on typhoon track prediction by PAGASA and hazard maps prepared by scientific agencies since the Yolanda Disaster. Pre-emptive evacuation by more than 700 thousand people who were living in LGUs that might have been hit by the impending Typhoon Ruby was promoted through strong advisories based on this PDRA by NDRRMC/OCD.

The PDRA is described and explained in detail and designated as one of the most important activities in the Pre-Disaster Phase in the NDRP, which the Team and C/P developed in the Project. It is

expected that the NDRRMC and warning agencies will issue alerts and advisories based on the PDRA activities by more accurate forecasts and prediction of disaster in accordance with the NDRP to be updated annually.

### **(3) Issues Remaining Unsolved and Recommendations**

In the Philippines, many non-structural measures have already been conducted. However, the preparation and the improvement of hazard maps, and the establishment and operation & maintenance of the early warning system, etc. should be promoted according to the changes in social conditions and the improvement of technology for holistic improvement of the Philippine DRRM.

As described above, there is a budding movement to take advantage of lessons learned in the past to improve preparedness and response measures, such as for operations during the Ruby Disaster based on lessons learned from the Yolanda Disaster. The promotion of education and information campaigns for vulnerable communities and more accurate advisories to LGUs in line with the anticipated damage by disaster have already been activated and accelerated. Moreover, the further strengthening and enhancement activities of non-structural activities as enumerated below shall be considered.

#### **1) Scientifically-based Risk Assessment and Hazard Mapping**

Scientifically-based risk assessment and hazard mapping are necessary for all the DRRM measures such as awareness enhancement, PDRA, evacuation instructions, etc. These are also indispensable for structural measures and evacuation planning. In the Philippines, scientifically-based risk assessment and hazard maps are not adequately prepared or standardized. Although there have already been many hazard maps according to the project basis, the methodologies for the preparation and the prerequisites or the conditions of the maps are not understood by the users. In OCD, there are some staff who cannot understand the plurality or existences of multiple hazard maps for the same disaster and in the same location/area. In this connection, it is imperative for not only residential people and staff of LGUs, but also staff of the central government to discuss and explain the meanings of anticipated disasters with different return periods. These issues have resulted from the following facts:

- ◆ Unified Hazard Analysis and Risk Assessment Methods has not been established, and
- ◆ Indication and labeling methods for delineation of Hazard/Risk Maps have not been authorized.

Hence, the NDRRMC shall urgently standardize and formulate the guideline(s) for hazard analysis and risk assessment when drawing hazard/risk maps. Analysis and preparation of maps must be implemented based on standardized method(s) and guideline(s).

It is also proposed to disseminate scientifically-based risk assessment and hazard mapping nationwide and to secure a certain level of accuracy through standardization of the risk assessment methods. The consideration of target disasters and the return period of the disaster, etc. should be discussed together with the discussion of the National Disaster Prevention and Mitigation Policy or Plan.

#### **2) Strengthening the Implementation of Non-Structural Measures including Evacuation Planning**

During the Ruby Disaster, a number of people conducted preemptive evacuation through the tremendous efforts of NDRRMC/OCD and LGUs prior to the landfall of the typhoon. However, the following issues remain and are unsolved.

- ◆ During the Pablo Disaster in 2012, several evacuees became victims due to damage to evacuation centers, and
- ◆ During the Yolanda Disaster in 2013, public buildings being used as evacuation centers where a number of people were accommodated were affected by storm surges and several evacuees died or went missing.

In this regard, especially for evacuation, the preparation of guidelines for evacuation planning to define the following items is proposed, since the locations of the evacuation centers and evacuation routes, the process of actions from the receipt of the warning messages to the evacuation activity, etc., have not been standardized:

- ◆ Locations and requirements for the Evacuation Center
- ◆ Requirements for the Evacuation Routes
- ◆ Information issued by the government on evacuation, its dissemination, and actions to be taken
- ◆ Periodical implementation of exercises, reviews and improvements of the plan and its cycle, etc.

## **2. Issue on Yolanda-2: Recovery and Rehabilitation Programs and the Project has been derailed or not gone as planned**

### **(1) Lesson Learned 2-1: Necessity of PDNA Guideline(s)**

#### **1) Lesson Learned**

In order to aim at recovering from the devastation caused by the Yolanda Disaster in November 2013, the NDRRMC / OCD started Post-Disaster Needs Assessment (PDNA) immediately after the disaster. However, it took six months to complete for the following reasons:

- ◆ It was too enormous and extensive to grasp the whole picture of damage in a short time,
- ◆ In addition, the roles and responsibilities of each organization for assessment have not been clarified. Therefore, conducting PDNA was very difficult for OCD.

Furthermore, the Office of the Presidential Assistant for Rehabilitation and Recovery (OPARR) was established during PDNA to support the NDRRMC/OCD and deal with the unclear roles and responsibilities for rehabilitation and recovery activities. However, it did not contribute to acceleration and expedition of rehabilitation and recovery activities including conduct of PDNA.

The supporting system by NDRRMC member agencies for conduct of PDNA, for which OCD should take the initiative, should be established for prompt implementation.

#### **2) Addressing Lesson Learned and Effectiveness of Earlier Efforts**

OCD has already started the preparation of guidelines for PDNA based on the lessons learned from the Yolanda Disaster. It is expected that the guidelines will be authorized in the near future so that a PDNA is promptly executed immediately after huge disasters, and earlier recovery and rehabilitation activities can be implemented appropriately based on results of the PDNA.

According to the office of the President, the OPARR will be merged or absorbed into the NEDA. This restructuring has more advantages than disadvantages in terms of clarification of roles and

responsibilities on Philippine DRRM policies since the NEDA is designated as a vice-chairperson for theme of Recovery and Rehabilitation in the NDRRMP.

Contributions by the Project on this matter include “Development of Civil Defense Education and Training Program for OCD (CDETP)” and Modules related to PDNA to be included in the CDETP in Output 3 as well as the development of NDRP conceptualizing PDNA in Output 2. In CDETP developed through the Project activities, Introduction to Pre-Disaster Risk Assessment (PDRA) in Basic DRRM Training Course and Post-Disaster Needs Assessment (PDNA) Course in Advanced Course for staff of OCD were designated as indispensable training courses. The staff of OCD will acquire abilities for smooth and proper implementation of PDNA through training sessions designated by the Project.

## **(2) Lesson Learned 2-2: Mainstreaming DRRM into CLUP and CDP**

### **1) Lesson Learned**

As mentioned above, it is a problem that the preparation of PDNA and implementation of recovery and rehabilitation programs was delayed or have been delayed. One of the significant causes of these issues may include the incomplete mainstreaming of DRRM into the Comprehensive Land Use Plan (CLUP) and Comprehensive Development Plan (CDP) to be formulated by each LGU including their guidelines and Implementing Rules and Regulations (IRRs) of related Acts/Laws.

In the aftermath of the Yolanda Disaster, DENR issued an order to secure an easement of 40 meters in width from the coastline on which people are prohibited from residing based on PD 1067 (Water Code). However, it causes a lot of hardship or troubles due to objections on the part of residents and inconsistency or conflicts between this ad-hoc order and CLUPs/CDPs currently formulated by each LGU. It is essential to proceed with DRRM taking into account reducing vulnerability and risk in CLUPs/CDPs in advance of a huge disaster.

### **2) Addressing Lesson Learned and Effectiveness of Earlier Efforts**

In the National DRRM Summit and the Regional DRRM Summits which were both held for advocacy of Philippine DRRM to LCEs, importance of mainstreaming of DRRM into CLUPs and CDPs was repeatedly discussed and addressed under the initiative of DILG and NEDA as well as OCD. However, few CLUPs and CDPs are considering DRRM at this time. There is a little information that some LGUs have started the review of CLUPs and CDPs based on the lessons learned from Yolanda Disaster.

In fact, this issue has been mentioned previously as one of the recommendations in Activity:

“[54] Suggestions for Sunset Review of RA10121 and improvement of NDRRMP on LGU’s DRRM activities” in this Report as follows:

- ◆ “To enhance the formulation of the DRRM related plans such as CDP, CLUP and LDRRMP, the burden of the LGUs has to be decreased. That is why the coordination between the national agencies, which are responsible for formulating the policies training programs and module preparation, has to be strengthened as indicated in RA10121” (See (4) Section 2.3.2 of Chapter 2.)

This issue and recommendation has already been shared with OCD through activities of the Project.

### **(3) Lesson Learned 2-3: Infrastructures, Housing and Property vulnerable to Disaster**

#### **1) Lesson Learned**

In the Yolanda Disaster, the effects were recorded and estimated as follows:

- ◆ The number of damaged houses: 1,140,332 houses (550,928 totally / 589,404 partially)
- ◆ Damaged Amount of Health Facilities: PhP 1,272,434,800.00
- ◆ Damaged Amount of Schools: PhP 2,309,823,650.00
- ◆ Damage to Crops (rice, corn, other crops): PhP 9,491,493,471.47

In addition to the damages itemized above, a number of buildings of LGUs and central governments, which should play an important role for response, recovery and rehabilitation operations, were also damaged. This caused the delay or derailing of recovery and rehabilitation activities.

#### **2) Addressing Lessons Learned and Effectiveness of Earlier Efforts**

Compared to the Yolanda Disaster, the effects of the Ruby Disaster were quite small in terms of death toll. The number of dead or missing in the Ruby Disaster (18 people dead) was less than 1% of the total death toll of the Yolanda Disaster. However, the number of houses damaged in the Ruby Disaster reached 290,670 houses (42,466 totally / 248,204 partially) corresponding to approximately 25% of Yolanda Disaster even though the intensity of Typhoon Ruby was much smaller than the tremendous Typhoon Yolanda.

Focusing our eyes on a recent typhoon, the Seniang Disaster caused 66 deaths with 6 missing due to flash floods and landslides despite the weak intensity of Typhoon Seniang (the lowest pressure: 1,000 hPa or maximum sustained winds of 65 kph / gustiness of up to 80 kph.)

On the other hand, at present, it is certainly recognized that some activities for improving DRRM, such as training activities for retrofitting of housing against disaster, and formulation of structural or relocation plans preventing built-up areas from storm surges, have been initiated. However, these movements have not expanded nationwide but remain limited to disaster-affected areas. The mighty DRRM swell of shifting an approach to disaster risk management from “Post Disaster Response” to “Proactive Disaster Management,” which is an approach that focuses on mitigation and preparedness, has not been generated.

In order to achieve the Project purpose (Capacity of DRRM of OCD is strengthened), the Project has focused on four (4) components composed of Planning, Operations, Education and Training, and CBDRRM. Therefore, the Project activities related to this lesson learned in terms of “Prevention and Mitigation” were few or scarce. However, the Team discussed the following issues with C/P and officers of the NDRRMC member agencies throughout the Project period.

- ◆ Necessity of revising hazard maps due to the formulation of plan(s) for prevention and mitigation structural measures; and
- ◆ Measures for risk avoidance and risk mitigation.

#### **(4) Issues Remaining Unsolved and Recommendations**

As described above, activities with respect of “Prevention” and “Mitigation” as well as rehabilitation have not demonstrated observable progress in improving the Philippine DRRM. In this connection, it

is required that prevention and mitigation activities should be promoted and accelerated. In particular, the following shall be taken into consideration on a priority basis:

**1) Mitigation of Economic Damage by Structural Measures**

The wide area around Tacloban City, which is one of the economic centers of Eastern Visayas, was heavily affected by typhoon Yolanda. The human and economic damages were expanded because of the collapse of important buildings such as city hall, the evacuation center, hospital, school, etc., in addition to damage to economic areas and main roads. Although it is said that the structural measure is expensive, it is not always expensive if human lives and the “cost effectiveness” are properly considered.

It is necessary to define the national policy or the standard for the structural measures such as whether it protects a whole area or a selected local area which is economically important, and how the protection level (return period of disasters) is defined, etc. Although some of the standards for flood control have already been defined by the DPWH, this kind of standard should be defined as the national policy for each disaster, not by a single agency but by the NDRRMC, and it should be described in the National Disaster Prevention and Mitigation Policy or Plan or equivalent policy papers, such as CLUPs, CDPs, or their guidelines.

The preparation of the training module for the planning and implementation of the structural measures is also proposed in order to enhance the proper understanding of the structural measures by the DRRM related officers, and to publicize the effectiveness of the structural measures.

**2) Mitigation of Human Damage by Strengthening Important Buildings**

The standards to strengthen the important buildings against disasters, such as the locations for the buildings based on the hazard maps, and the structures to be strong enough against the forces by disasters, etc., should be discussed and described in the building standards or the guidelines for the important buildings. Actually, there have already been several standards and guidelines in the Philippines. However, there are some challenges such that existing standards and guidelines are not (or cannot be) used, or the capacity to check and authorize the structure is not enough, etc. It is necessary for the OCD and NDRRMC to create the system to enhance the practicability of the standards and the guidelines.



## 5.2 Recommendations to Achieve Overall Goal

The recommendations to achieve overall goals are summarized below by combining the recommendations selected from chapter 4 and the recommendations shown in section 5.1.

### **1. Recommendations for the Plan Structure**

#### **(1) Consideration for the Plan Structure on DRRM (Component 2)**

Although it is described in the NDRRMP to prepare the NDRP and the Contingency Plan etc., their positions in the plan structure on the DRRM and their detailed contents are not clear. Those plans or the guidelines to prepare those plans will be easily prepared under the common understandings by the related agencies, if the plan structure is discussed and defined.

#### **(2) Re-confirmation of the Objective of the LDRRMP and Relation with the LDRRMF, and the Activation of System (Component 1)**

The LDRRMP, which shows the policy of LGUs on DRRM, has to be approved in order to utilize the LDRRMF for the DRRM activities. However, there are many LGUs that are utilizing the LDRRMF by only submitting the one page LDRRMF Implementation Plan (KDRRMFIP) as the LDRRMP. It is difficult to assess the validity of the DRRM activities and the expenditure of LDRRMF with only the LDRRMFIP. LGUs have to understand the meaning and system of the LDRRMP and LDRRMF properly and have to prepare the LDRRMP, so that the priority DRRM activities can be conducted according to the plan. OCD and related agencies have to support LGUs on those activities.

#### **(3) Discussion on Contents of Barangay Level DRRMP (Component 4)**

The template of the LDRRMP is already defined, but the contents are wide-ranging, and the knowledge of the DRRM and advanced capacity are required for planning. Therefore, it is difficult for the Barangay-level officers to prepare their DRRMP following the present template.

Since the role of the Barangay on DRRM is very important especially for the CBDRRM activities, the realistic barangay-level DRRMP with the CBDRRM activity is expected to be prepared by discussing the contents of the DRRMP and preparing the guidelines showing the basic items to be included in the DRRMP.

### **2. Recommendations for Role Allocation of Related Agencies**

#### **(4) Clarification of Role Allocation to Support LGUs on DRRM (Component 1)**

The LGUs have a big role in the DRRM such as the preparation of the LDRRMP, the establishment of LDRRMO, the preparation of other plans, and implementation of some activities, etc. Since the LGUs do not have enough capacity to do those activities properly, the National Government Agencies (NGAs) have to support their activities.

However, the NGAs are not able to support LGUs properly, since the role allocation is not clearly described in RA10121 and NDRRMP. The support activities will be conducted efficiently without overlapping by clarifying the roles of the related agencies, especially for the DILG and OCD, to support the LGUs in the DRRM.

**(5) Clarification of Role Allocation for Education & Training on the DRRM including the CBDRRM Activity (Component 3, Component 4)**

Because education and training is necessary for all the sectors in the Philippines, there are many agencies responsible for education and training according to the respective laws. In the case of “Education and Training on DRRM”, there are some descriptions in RA10121. However, the roles of the OCD and NDRRRMTI, etc. are not clear for the “Education and Training for LGUs on DRRM,” since there are roles of DILG and LGA for the “Education and Training of LGUs.” The education and training program can be conducted effectively and efficiently by clarifying these roles.

**3. Recommendations for Other DRRM Activities**

**(6) Human Resource Development of LDRRMOs (Component 1)**

Since the LDRRMOs are responsible for the DRRM activities by LGUs and the role of LGUs on the DRRM is very important, the officers dispatched to the LDRRMOs are very much expected to perform well. NDRRMC has already issued the memorandum to specify the requirements for the officers of LDRRMOs. However, most of the LGUs are not able to dispatch suitable officers to the LDRRMOs at present, since the requirements specified in the memorandum are very high.

Therefore, it is recommended to give more time to the LGUs for the staffing of the LDRRMOs and to prepare the policy to educate and train the required officers during the allocated time, so that the LGUs will be able to promote the activities.

**(7) Localization of the NDRP (Component 2)**

The Project supported the preparation of NDRP. However, the regional and the local level agencies are always at the frontline of the disasters. It is indispensable for the regional and the local level agencies to have better coordination for the response activities in order to minimize the damage by the disasters.

Therefore, the localization of the NDRP has to be promoted. The national concept for disaster response described in the NDRP shall be shared among the regional and local level agencies. The capacity of the LGUs for disaster response will be enhanced by the preparation of the NDRP at the local level.

**(8) Improvement of the Information Management System for the DRRM (Component 2)**

The framework of the database for OCD was developed and some of the available data have already been accumulated in the database. The capacity for the response activity by using IMS was enhanced together with the basic skill training on GIS.

The IMS will be utilized not only for disaster response but also for risk assessment and policy making through the establishment of an information sharing system among the NDRRMC member agencies, the utilization of shared data, and the utilization of GIS skills trained during the project period, etc.

**(9) Preparation and Standardization of other Training Modules and Activation of the Education and Training Program (Component 3)**

The development of the prioritized four training modules on DRRM was supported by the Project. However, there are still a number of training modules on DRRM to be standardized or developed.

The preparation and the standardization of other training modules on the DRRM shall be promoted based on global issues, the result of periodic evaluations, and needs assessment, so that there will be a variety of training modules on the DRRM, the education and training activity will be activated, and the capacity of related officers on the DRRM will be enhanced.

**(10) Implementation of Scientifically-Based Risk Assessment and Hazard Mapping (Recent Disaster Experience)**

As shown in section 5.1, the lack of scientifically-based risk assessment and hazard mapping was one of the reasons for the extensive the damage in recent disasters.

All the necessary DRRM activities such as structural measures, evacuation planning, awareness enhancement, the PDRA, etc., will be implemented as accountable and convicting activities by using the scientifically-based risk assessment and hazard maps.

**(11) Preparation of the Evacuation Plan and its Guidelines (Recent Disaster Experience)**

As shown in section 5.1, the amount of human damage will depend on whether the LGUs and the community people can take proper actions for the evacuation or not. At present, there are no evacuation plans or guidelines for planning that define the actions for evacuation by the LGUs and the community people.

The LGUs will be able to prepare their evacuation plan, once the guidelines are prepared. It is expected that the government officers and the community people will be able to have the common understanding of the evacuation activities during the emergency situations and to conduct smooth evacuation activities.

**(12) Preparation of the National DRRM Prevention & Mitigation Plan (Recent Disaster Experience)**

As shown in section 5.1, the lack of the structural measures was one of the reasons for the extensive damage in recent disasters. Although the structural measures cost a lot, the necessity and relevance have to be discussed together with the local CDP and CLUP. The preparation of the National DRRM Prevention & Mitigation Plan shall be recommended.

By this plan, it is expected that the people related to the DRRM will understand the importance and the necessity of the structural measures, and the previous DRRM activities focused on the non-structural measures will be shifted to the balanced DRRM activities with the structural measures. It is also expected that the economic damage will be reduced by the disasters and it will lead to sustainable social economic development.

**(13) Periodic Review, Improvement, and Promotion of Plans and Systems Prepared and Established by Project Activities (Overall Project)**

The project activities have been conducted in consideration of the actual implementation of the plans and the continuous operation of the system after the project. It is expected that the capacity of the OCD and the NDRRMC will be enhanced and the DRRM activities in the Philippines will be activated by the periodic review, improvements based on the review, and the nationwide promotion.

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