

**Republic of the Philippines  
Office of Civil Defence (OCD)**

**Disaster Risk Reduction and Management  
Capacity Enhancement Project  
Phase2 (1st Period)**

**Project Completion Report (1st Period)**

**March 2023**

**Japan International Cooperation Agency (JICA)**

**Oriental Consultants Global Co., Ltd.**

**CTI Engineering International Co., Ltd.**

**Pacific Consultants Co., Ltd.**

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## 【Abbreviations】

CBTS	Capacity Building and Training Service
CCC	Climate Change Commission
CDD	Curriculum Development Division
CDP	Comprehensive Development Plan
CDPFI	Center for Disaster Preparedness Foundation, Inc.
CDRA	Climate and Disaster Risk Assessment
CHED	Commission on Higher Education
CLUP	Comprehensive Land Use Plan
COA	Commission on Audit
CSO	Civil Society Organization
DBM	Department of Budget and Management
DENR	Department of Environment and Natural Resources
DHSUD	Department of Human Settlements and Urban Development
DILG	Department of Interior and Local Government
DILG-LGA	Department of Interior and Local Government – Local Government Academy
DLE	Damage and Loss Evaluation
DOH	Department of Health
DOST-PHIVOLCS	Department of Science and Technology – Philippine Institute of Volcanology and Seismology
DOST-PAGASA	Department of Science and Technology – Philippines Atmospheric, Geophysical and Astronomical Services Administration
DPWH	Department of Public Works and Highways
DRRM	Disaster Risk Reduction and Management
NDRRM TRI	National Disaster Risk Reduction and Management Training Research Institute
DSWD	Department of Social Welfare and Development
DepED	Department of Education
GMMA-RAP	The Great Metro Manila Risk Assessment Project Risk Analysis Project
HFA	Hyogo Framework for Action
HLURB	Housing and Land Use Regulatory Board
ICA	Individual Capacity Assessment
ITAD	Training and Advocacy Division
JICA	Japan International Cooperation Agency
LCCAP	Local Climate Change Action Plan
LCE	Local Chief Executive
LDP	Local Development Plan
LDRRMC	Local DRRM Council
LDRRMO	Local DRRM Officer

LDRRMP	Local DRRM Plan
LGU	Local Government Unit
MGB	Mines and Geo-Sciences Bureau
NAMRIA	National Mapping and Resource Information Authority
NDRRMC	National DRRM Council
NEDA	National Economic and Development Authority
NEDA-RDS	National Economic and Development Authority Regional Development Services
NGA	National Government Agency
NGO	Nongovernmental Organization
OCD	Office of Civil Defense
PDPFP	Provincial Development and Physical Framework Plan
PDPS	Policy Development and Planning Service
PHP	Philippine Peso
PSA	Philippine Statistics Authority
RA10121	Republic Act No. 10121
RDP	Regional Development Plan
RDRRMC	Regional DRRM Council
RDRRMO	Regional DRRM Officer
RDRRMP	Regional DRRM Plan
REDAS	Rapid Earthquake Damage Assessment System
RRMS	Rehabilitation and Recovery Management Service
RWAN	Rice Watch and Action Network
SUC	State University and College
SWERVE	Severe Wind Estimation of Risk Using Vulnerability and Exposure
TOT	Training of Trainers
ULAP	Union of Local Authorities of the Philippines
UNDP	United Nations Development Programme
UNDRR	United Nations Office for Disaster Risk Reduction
UP-SURP	University of the Philippines -School of Urban and Regional Planning
USD	United States Dollar
WG	Working Group



# Project Completion Report

## I. Basic Information of the Project

### I.1 Country

The Republic of the Philippines

### I.2 Title of the Project

Disaster Risk Reduction and Management Capacity Enhancement Project Phase II

### I.3 Duration of the Project (Planned and Actual)

The 1<sup>st</sup> Period

Plan : From September 2019 to June 2022 (34 months)

Actual: From December 2019 to March 2023 (43 months)

The 2<sup>nd</sup> Period

Plan : From July 2022 to November 2024 (29 months)

Actual: From April 2023 to July 2025 (28 months)

### I.4 Background

The Republic of the Philippines (hereinafter referred to as “Philippines”) is a vulnerable country to various natural disasters such as typhoons, floods, earthquakes, volcanic eruptions and others, just like Japan. According to the World Risk Report 2017 published by United Nations University, the Philippines is one of the countries exposed to a serious risk of natural disasters in the world.

After the adoption of Hyogo Framework for Action 2005-2015 (hereinafter referred to as “HFA”), the government of the Philippines has made a shift in the approach for disaster management: from post disaster response to prevention and mitigation based on Disaster Risk Reduction and Management (DRRM) strategy. In 2009, the Strategic National Action Plan for Disaster Risk Reduction 2009-2019 was formulated as a concrete action based on the HFA. Then, the Philippine Disaster Risk Reduction and Management Act (R.A. 10121), hereinafter referred to as “DRRM Act” was enacted in 2010.

The Office of Civil Defense (OCD) is appointed as the Secretariat of the National DRRM Council (NDRRMC), which under the DRRM Act is the central and leading organization for DRRM activities in the Philippines. OCD is mandated to implement and promote various DRRM activities, not only post disaster emergency response but also disaster prevention and mitigation. Consequently, OCD is facing many challenges for strengthening the capacity of its organization and human resources.

Under these circumstances, the Japan International Corporation Agency (hereinafter referred to as “JICA”) has supported the strengthening of the capacity of OCD as lead agency in the NDRRMC through the continuous dispatch of long-term experts and the implementation of the “Disaster Risk Reduction and Management Capacity Enhancement Project 2012-2015” (hereinafter referred to as “Project I”), which is implemented to coordinate with other related agencies of national DRRM planning and disaster responses at the national level was enhanced as well as the DRRM’s efforts in the Philippines.

However, there are still many challenges such as the development of DRRM activities at the level of Local Government Units (LGUs) and strengthening of the monitoring system at the national level. There is an urgent need to further strengthen the implementation and coordination capabilities of OCD involving other related agencies and promote DRRM activities in LGUs.

### I.5 Overall Goal and Project Purpose [from Record of Discussions (R/D)]

The overall goal, project purpose, expected outputs, and respective activities since the beginning of the Project are summarized in Table I.1.

**Table I.1 Summary of overall goal, project purpose, outputs, and activities**

<b>Overall Goal</b>	Reducing disaster human casualties and economic losses under NDRRMC’s initiative.	
<b>Project Purpose</b>	Planning, implementation and monitoring system of the RDRRMPs/ LDRRMPs is developed for the purpose of reducing disaster human casualties and economic losses with the necessary technical support by National DRRM system centered upon NDRRMC	
	<b>Output</b>	<b>Activities</b>
Output1	Guidebooks for hazard information use and risk assessment are developed so that disaster-related officials centered upon RDRRMC and LDRRMC can understand local disaster risks and realize disaster risk reduction through countermeasures.	<ul style="list-style-type: none"> <li>1-1 Review the current state of hazard assessment/information and identify.</li> <li>1-2 Review the current state of risk assessment/information and identify.</li> <li>1-3 Consider risk assessment methods so that disaster-related officials can understand local disaster risks and realize disaster risk reduction through countermeasures.</li> <li>1-4 Set selection criteria and select LGUs in the pilot regions.</li> <li>1-5 Support the review of risk information in the pilot areas based on the existing hazard/risk assessment by using the risk assessment methods considered in 1-3.</li> <li>1-6 Develop draft guidebooks for reviewing hazard/risk information.</li> <li>1-7 Based on the results of 4-4, revise the guidebooks developed in 1-6.</li> </ul>
Output2	Guidebooks for the formulation of RDRRMPs/ LDRRMPs based on disaster risk information are developed for the purpose of reducing disaster human casualties and economic losses.	<ul style="list-style-type: none"> <li>2-1 Review the current state of RDRRMPs/LDRRMPs and identify challenges.</li> <li>2-2 Consider the options of disaster risk reduction measures to reduce human casualties and economic losses based on disaster risk information that should be implemented at each level of region, province, city and municipality.</li> </ul>

	<p>2-3 Support the formulation of RDRRMPs/LDRRMPs in the pilot areas based on the risk assessment conducted in 1-5.</p> <p>2-4 Review the related local plans such as CDP, CLUP and LCCAP, and support adjustment of RDRRMPs/LDRRMPs in the pilot areas.</p> <p>2-5 Develop draft guidebooks for the formulation and revision of RDRRMPs/LDRRMPs.</p> <p>2-6 Based on the results of 4-4, revise the guidebooks developed in 2-5.</p>
<p>Output3    OCD's information management (including global indicators such as Sendai Framework for Disaster Risk Reduction), monitoring and evaluation system on the formulation, revision and implementation of RDRRMPs/LDRRMPs is established</p>	<p>3-1 Review the current state of OCD's information management on RDRRMPs/LDRRMPs and identify challenges.</p> <p>3-2 Consider OCD's information management, monitoring and evaluation.</p> <p>3-3 Develop draft guidebooks and monitoring and evaluation structure in order to implement the system considered in 3-2.</p> <p>3-4 Conduct a workshop for all the OCD regional offices on the draft guidebooks and monitoring and evaluation structure developed in 3-3.</p> <p>3-5 Conduct activities in the pilot area based on the draft guidebooks and monitoring and evaluation structure developed in 3-3.</p> <p>3-6 Based on the results of 3-4 and 4-4, revise the guidebooks and monitoring and evaluation structure developed in 3-3.</p>
<p>Output4    Training system is established in order to replicate the project outcome and conduct training for regions and LGUs in the Philippines.</p>	<p>4-1 Review the current state of DRRM training including construction of the NDRRM Training Institute and identify challenges.</p> <p>4-2 Consider the draft training structure for regions and LGUs.</p> <p>4-3 Based on the guidebooks developed in 1-6, 2-5 and 3-3, develop draft training programs and modules for regions and LGUs.</p> <p>4-4 Conduct a workshop for all the OCD regional offices on the draft training programs and modules developed in 4-3.</p> <p>4-5 Conduct training in the pilot areas based on the draft structures for training, monitoring and evaluation developed in 3-3 and 4-2 and the draft training programs and modules.</p> <p>4-6 Based on the results of 4-4, revise the training structure developed in 4-2 and the training program and modules developed in 4-3.</p> <p>4-7 Develop the training implementation plan (including timeline, budget, training of trainers, etc.) in order to replicate the project outcomes and conduct DRRM training for regions and LGUs in the Philippines.</p>

Source: JICA Expert Team

## I.6 Implementing Agency

### I.6.1 Overall structure of the Project

The main counterpart (C/P) of this project is the Office of Civil Defense (OCD).. OCD collaborates with the C/Ps listed below to achieve the Project objectives.

**Table I.2 C/Ps and Related Agencies**

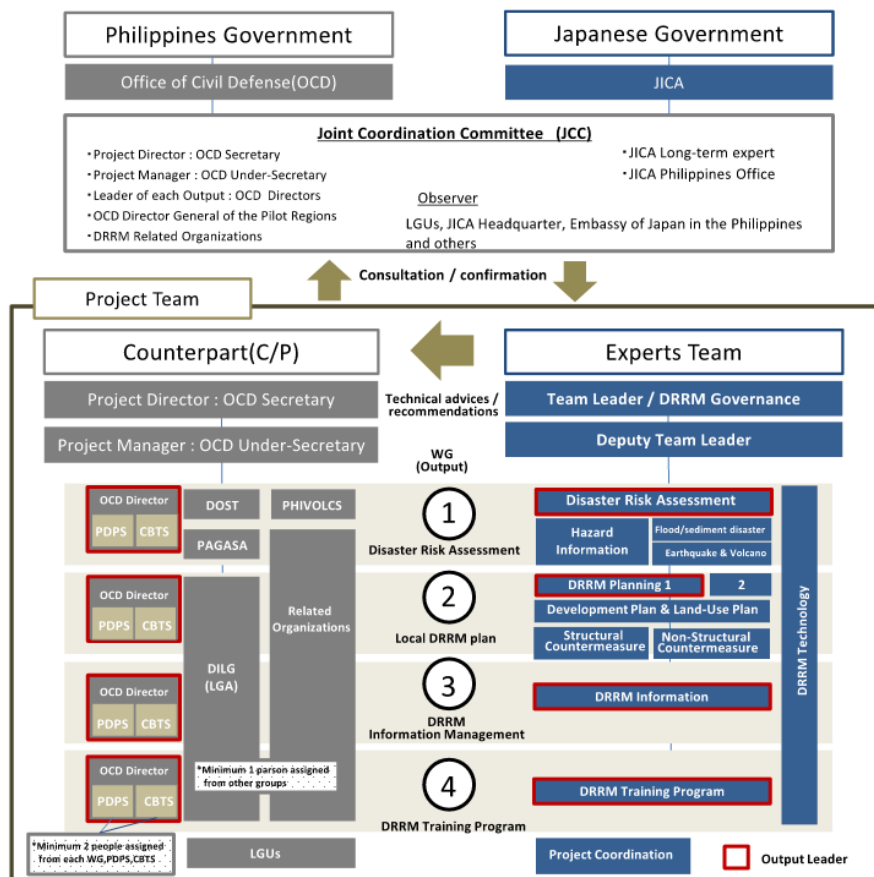
Organization Name		Involvement in the Project	Relevant Outputs	
C/P	OCD-Central	<ul style="list-style-type: none"> <li>- C/P of the Project</li> <li>- Coordination with related organizations</li> <li>- Formulation and facilitation of the Approval/Authorization of the Project Outputs</li> <li>- Establishment of internal and inter-agency structures to monitor the formulation and implementation status of LDRRMPs, conduct of training to expand the Pool of Trainers, and also to maintain the sustainability of the Project.</li> <li>- Establishment of procedures to periodically review and renew Project Outputs</li> </ul>	Overall Project (including monitoring of the Project activities, inter-agency arrangements, and others)	
	OCD-Regional	Pilot Regions (Region IV-A, VII and XI)	<ul style="list-style-type: none"> <li>- Coordination with Pilot LGUs</li> <li>- Review of RDRRMP</li> <li>- Technical Assistance to LGUs by using the Draft Guidebooks (Pilot Testing)</li> </ul>	Overall Project
		All Regions	<ul style="list-style-type: none"> <li>- Inputs to improve Project Outputs</li> </ul>	
	LGUs	Pilot LGUs	<ul style="list-style-type: none"> <li>- Conduct of pilot activities</li> <li>- Formulation and approval of revised LDRRMP</li> <li>- Review and monitoring of LDRRMP</li> </ul>	Mainly Outputs 1, 2 and 3
Related Organizations	<ul style="list-style-type: none"> <li>• DILG</li> <li>• HLURB</li> <li>• CCC</li> </ul>	<ul style="list-style-type: none"> <li>- Inputs to formulate and perform guidebooks</li> <li>- Inputs to establish effective monitoring system</li> </ul>	Mainly Outputs 1,2, and 3	
	<ul style="list-style-type: none"> <li>• DILG-LGA</li> <li>• CHED</li> <li>• ULAP</li> </ul>	<ul style="list-style-type: none"> <li>- Inputs to develop training programs and modules</li> </ul>	Mainly Outputs 1,2,3, and 4	
	<ul style="list-style-type: none"> <li>• PHIVOLCS</li> <li>• MGB</li> <li>• PAGASA</li> <li>• PSA</li> <li>• NAMRIA</li> </ul>	<ul style="list-style-type: none"> <li>- Inputs to develop the "Guidebooks on the utilization on Hazard Information and on the conduct of Risk Assessment"</li> <li>- Inputs to develop training programs</li> </ul>	Mainly Output 1	
	<ul style="list-style-type: none"> <li>• DSWD</li> <li>• DPWH</li> <li>• NEDA</li> <li>• DOH</li> </ul>	<ul style="list-style-type: none"> <li>- Inputs to develop "Guidebooks on the Formulation and Review of LDRRMPs"</li> </ul>	Mainly Output 2	
	<ul style="list-style-type: none"> <li>• COA</li> <li>• DBM</li> </ul>	<ul style="list-style-type: none"> <li>- Inputs to develop monitoring indicators, consider feasible and effective structures (especially to monitor the use of LDRRMF)</li> </ul>	Mainly Outputs 2 and 3	

Source: JICA Expert Team

## I.6.2 Administrative structure of the Project

The implementation structure of the Project is shown in Figure I.1.

The Project members from both the Philippine side and Japanese side are divided into four Working Groups (WGs) based on the Project's Outputs. Directors in OCD Central Office are assigned as WG leaders and the staff members from the Policy Development and Planning Service (PDPS) and Capacity-Building and Training Service (CBTS) in OCD are assigned as members of each WG so that the Philippine side takes ownership of the Project. At least two staff members from PDPS and CBTS are assigned as members of each WG for continuity of OCD capacity enhancement through the WG activities. Furthermore, at least one person from respective NDRRMC member related organizations is assigned as member of each WG to build a good linkage between OCD and other organizations. The roles and responsibilities of each organization are identified to strengthen the DRRM in the Philippines.



Source: JICA Expert Team

Figure I.1 Administrative structure of the Project

## II. Results of the Project

### II.1 Results of the Project

#### II.1.1 Input by the Japanese side (Planned and Actual)

##### (1) Expert dispatch

Sixteen (16) Japanese experts have been dispatched based on the Plan of Operation (PO) in the Work Plan. The assigned roles of the experts are listed as well as the planned and actual dispatch and man-months (Table II.1).

**Table II.1 Dispatch of JICA Experts**

Roles	Number of Dispatch		Man Month (MM)	
	Planned	Actual	Planned	Actual
Team Leader / DRRM Governance	10	5	10.00	11.90
Deputy Team Leader / DRRM Planning 1	9	4	5.53	6.25
DRRM Planning 2	10	8	11.80	17.12
Disaster Risk Assessment	8	6	6.50	10.27
Hazard Information 1 (Flood & Sediment Disaster)	5	4	4.73	4.53
Hazard Information 2 (Earthquake & Volcano)	5	2	5.00	5.52
Structural Countermeasure	5	4	4.50	5.23
Non-Structural Countermeasure	5	3	4.50	5.17
Development Plan & Land-Use Plan	5	3	4.33	4.00
DRRM Information	5	5	3.77	3.92
DRRM Training Program	4	6	3.43	6.35
DRRM Technology	6	2	1.40	1.37
Project Coordination / Capacity Development	9	8	0.00	7.00
Disaster Risk Assessment 2	0	2	0.00	0.00
Infrastructure & Lifeline	0	1	0.00	0.00
DRRM Planning 3	0	2	0.00	0.00
<b>Total</b>	<b>86</b>	<b>65</b>	<b>65.5</b>	<b>92.13</b>

Source: JICA Expert Team

##### (2) Japan Training Participants

The Philippine C/P OCD and officers from pilot LGUs came to Japan for a training session on January 11-26, 2023.

**Table II.2 Breakdown of Training Participants**

Position	Participants	
OCD (Central)	8	Total 15
OCD (Regional)	3	
LGUs Officer	4	

Source: JICA Expert Team

### (3) Equipment Provision

One note PC was provided for office use in November 2019. Details of the equipment are shown in Table II.3.

**Table II.3 Details of Equipment**

Equipment	Product Specification	No. of Unit
PC	Acer Aspire 3 A315-42G-R03V BLK	1

Source: JICA Expert Team

#### II.1.2 Inputs by the Philippine side (Planned and Actual)

##### Counterpart assignment

OCD designated a Project Leader and WG leaders. OCD assigned WG members from OCD several divisions of OCD. Total number of members is 31.

**Table II.4 List of WG members**

Working Group (WG) / Output	Leader	Members
<b>WG1: Disaster Risk Understanding and Information</b>	Ms. Cheryl Loise Leal, PDPS	<ul style="list-style-type: none"> <li>• Mr. Ryan Chrstpher Viado, RRMS</li> <li>• Mr. Relan Jay Asuncion, OS</li> <li>• Ms. Deniece Krizia Manding, OS</li> <li>• Ms. Mary Grace Somido, OS</li> <li>• Mr. Kenneth Menor, PDPS</li> <li>• Mr. Marvin Kristian Arias, PDPS</li> <li>• Mr. Raffy Lucas, CBTS</li> </ul>
<b>WG2: Local DRRM Plan</b>	Ms. Ma. Christina Lee, PDPS	<ul style="list-style-type: none"> <li>• Mr. Manuel Nivera Jr., CBTS</li> <li>• Ms. Cheryl Loise Leal, PDPS</li> <li>• Mr. Benito Salcador, Jr., RRMS</li> <li>• Mr. Ryan Christopher Viado, RRMS</li> <li>• Ms. Mary Ann Sarah Ulat, OS</li> <li>• Mr. Renato Libunao Jr., PDPS</li> <li>• Mr. Paolo Jonas Alan, OS</li> </ul>
<b>WG3: Monitoring and Evaluation</b>	Ms. Raquel De Leon, PDPS	<ul style="list-style-type: none"> <li>• Ms. Leonila Dissanayaka, RRMS</li> <li>• Mr. Marivin Kristian Arias, PDPS</li> <li>• Ms. Hannah Grace Escamilla, CBTS</li> <li>• Ms. Gia Mae Resaba, PDPS</li> <li>• Ms. Grace Joice Ganas, CBTS</li> <li>• Ms. Tanya Celina Cauntay, PDPS</li> </ul>
<b>WG4: Training and Replication</b>	Ms. Lorelei Bendijo, CBTS	<ul style="list-style-type: none"> <li>• Mr. Relan Jay Asuncion, OS</li> <li>• Ms. Aimee Menguilla, OS</li> <li>• Mr. Alvin Geronimo, RRMS</li> <li>• Ms. Shereen Hombrebueno, CBTS</li> <li>• Mr. Julius Hontiveros, RRMS</li> <li>• Ms. Rose Ann Tierra, CBTS</li> <li>• Ms. Aurora Dela Rosa, CBTS</li> <li>• Ms. Monique Raizza Jacob, PDPS</li> <li>• Ms. Hyacinth Jeaned Barros, PDPS</li> <li>• Mr. Mark Anthony Rana, PDPS</li> </ul>

Source: JICA Expert Team

## **Provision of offices**

OCD designated an office for the project for smooth progress of the activities. Apart from this, OCD provided a conference room and snacks at some meetings.

### **II.1.3 Activities (Planned and Actual)**

#### **(1) Overview of the Project**

##### **[0-1]: Support to hold the JCC Meeting and Inter WG Meeting**

In addition to JCC Meetings, Inter WG Meeting was held for monitoring the outputs and progress of the project once every six month.

**Table II.5 JCC Meetings and Inter-WG Meetings**

<b>Date</b>	<b>Meeting</b>	<b>Main Agenda</b>
2021/11/24	1 <sup>st</sup> JCC Meeting	<ul style="list-style-type: none"><li>• Activities under COVID-19 restriction</li><li>• Stage 1 Pilot Activity - Pilot LGUs Selection</li><li>• Next Step</li></ul>
2021/11/24	Inter WG Meeting	<ul style="list-style-type: none"><li>• Revision of Guidebooks</li><li>• Stage 2 Pilot LGUs Selection</li><li>• Next Step</li></ul>
2022/1/28	Inter WG Meeting	<ul style="list-style-type: none"><li>• Revision of Guidebooks</li><li>• Preparation for JCC Meeting</li></ul>
2022/2/24	2 <sup>nd</sup> JCC Meeting	<ul style="list-style-type: none"><li>• Introducing the Tubigon MDRRMP</li><li>• Next Plan</li></ul>
2022/7/28	Inter WG Meeting	<ul style="list-style-type: none"><li>• Explanation of the Delay in Pilot Activities</li><li>• Progress of Pilot LGUs</li><li>• Next Step</li></ul>
2022/12/13	Inter WG Meeting	<ul style="list-style-type: none"><li>• Update of WG1-3 Guidebooks</li><li>• Preparation for JCC Meeting</li></ul>
2022/2/8	3 <sup>rd</sup> JCC Meeting	<ul style="list-style-type: none"><li>• Summary of the 1<sup>st</sup> Period of the Project</li><li>• Envisioning of the 2<sup>nd</sup> Period of the Project</li></ul>

Source: JICA Expert Team

##### **[1-4]: Set selection criteria and select LGUs in the pilot regions**

The pilot activities were divided into two stages. The activities in Stage 1 were conducted by the Japanese experts and the Philippine C/Ps, and the activities in Stage 2 were mainly initiated by the Philippine C/Ps for the smooth implementation of the activities for nationwide dissemination.

The target 4 LGUs in Stage 1 were selected based on the selection criteria shown below.

- Timing for the revision of LDRRMP matches
- Easy access from Manila
- High potential Socioeconomic impact (=Income class is high)
- Various hazards to be referred by other LGUs (Flood, Earthquake, Geological disasters, Storm Surge, Tsunami, Typhoon etc.)



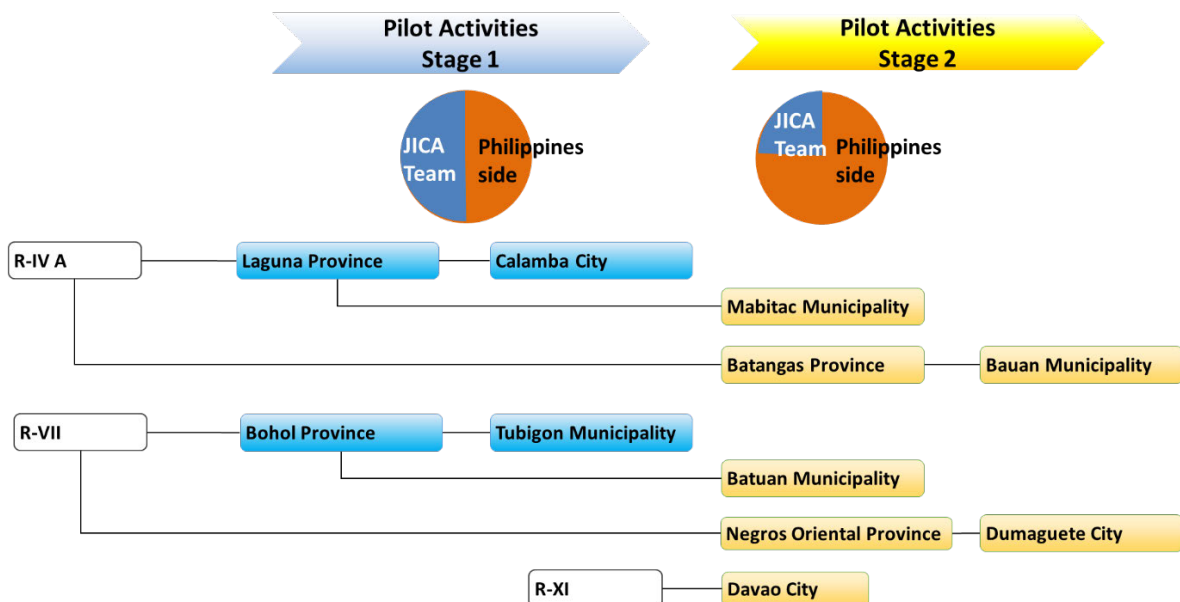
- High motivation for the activities by LDRRM officers
- No duplicated activities

The target 6 LGUs in Stage2 were selected based on the criteria shown below in addition to the criteria for Stage 1.

- 4<sup>th</sup> to 6<sup>th</sup> income class municipalities
- LGUs targeted for other related projects such as R2R project (Ready to Rebuild Project supported by World Bank)
- LGUs with tourist areas

For the stage 2 activities, in addition to the above 6 LGUs, Davao City was selected as pilot LGU for the development of LDRRMP relative to Disaster Risk Reduction through flood control project.

The 11 LGUs selected for the pilot activities are shown in the figure below.



Source: JICA Expert Team

Figure II.1 Pilot LGUs

## (2) Output 1

### **[1-1]: Review the Current State of Hazard Assessment/Information and Identify Challenges**

[1-1] is described in [1-2].

### **[1-2]: Review the Current State of Risk Assessment / Information and Identify Challenges**

Starting 2019, a series of baseline interviews and follow-up meetings with related national government agencies, local government units, and academic organizations were held in order to review the current status of Hazard Assessment / Information and Risk Assessment / Information and identify challenges. These were done in preparation for the pilot activities of Stage 1 to be carried out by Pilot LGUs.

**Table II.6 Series of Meetings on Hazard Assessment by WG1**

<b>Date</b>	<b>Agencies and Organizations</b>	<b>Main Agenda</b>
Oct.11, 2019	Baseline interview with DOST/ PHIVOLCS	Current Actions by DOST about Hazard Analysis, Disaster Risk Assessment, and Development of Related Systems
Oct.15, 2019	Baseline interview with UP-Resilience Institute	Current Status of UP NOAH Project (Flood, Landslide, Storm Surge)
Oct.16, 2019	Baseline interview with DOST/ASTI	Utilization of Satellite Images (PEDRO) Advanced Mapping Technology
Oct.30, 2019	Baseline interview with DOST/PHIVOLCS	REDAS GeoRisk.PH
Nov.6, 2019	Baseline interview with DENR/MGB	Flood and Landslide Susceptibility Maps (1:50,000, 1:10,000)
Nov.11, 2019	Baseline interview with HLURB	CDRA for CLUP
Nov.11, 2019	Baseline interview with NAMRIA	Available Topographic Maps (1:10,000, DEM)
Nov.13, 2019	Baseline interview with DOST/PAGASA	Flood Modeling, Storm Surge Modeling
Nov.15, 2019	Baseline interview with Municipality of General Mariano Alvarez (GMA)	Utilization of the Result of REDAS for CDP, CLUP, and LDRRMP
Nov.19, 2019	Baseline interview with DILG/BLGD	CDRA for CDP
Nov.22, 2019	Baseline interview with DOST/PHIVOLCS	Calculation Method of Damages and Losses by REDAS System Modules in Detail
Dec.6, 2019	Baseline interview with UP-ICE	The Result of GMMA RAP Fragility and Vulnerability Curves of Buildings (Seismic Shaking, Flood, Destructive Wind)
Jan.31, 2020	Baseline interview with DOST/PHIVOLCS	Calculation Method of Damages and Losses by REDAS
Feb.3, 2020	Baseline interview with UP-ICE	Fragility and Vulnerability Curves of Buildings How to develop the exposure database
Feb.7, 2020	Baseline interview with Bacoor City	Building Permission System
Apr.14, 2020	Online Meeting with PAGASA	Flood Modeling, Extreme Rainfall Projection using RCP 4.5 Scenario
Oct.5, 2020	Online Meeting with DENR/MGB	Methodology for Developing Flood Susceptibility Map
Oct.9, 2020	Online Meeting with UP-Resilience Institute	A result of Flood Modeling by UP NOAH
Oct.29, 2020	Online Meeting with DOST/ASTI & PhSA	Automated Building Footprint Extraction
Jan 27,2021	Follow-up meeting with DENR/MGB	Validation of MGB Hazard Maps and UP NOAH Flood Hazard Maps
Jan 28,2021	Follow-up meeting with UP-ICE and DOST/ PHIVOLCS	Consultation on utilization of the current fragility curves developed by UP ICE for evaluation of important public buildings and application of seismic impact assessment for such kinds of buildings using the platform of REDAS
Feb 10, 2021	Project Meeting with DENR/MGB and OCD	Presentation of the harmonized flood hazard maps of MGB and the difference with Project NOAH

Date	Agencies and Organizations	Main Agenda
April 19, 2021	Baseline interview with DOST/PHIVOLCS-GEORISK	Utilization of GeoRisk.PH for the impact assessment for Landslide (Rain-Induced, EQ-Induced), Liquefaction, and Volcanic Eruption
July 7, 2021	Meeting with Tubigon Municipality, Bohol	Discussion on the different development plans (CLUP/CDP) prepared by Tubigon and the DRA tool it used.
July 8, 2021	Meeting with Bohol Province	Discussion on the DRA tool it used for the PDPFP and request for the data used.

Source: JICA Expert Team

In addition, an online training was organized to learn more about the analytical methodology for REDAS, which was developed and operated by DOST/PHIVOLCS. The training was attended by OCD Central Office, OCD-R4A, and OCD-R7 and it was conducted twice as detailed below. Through the training, earthquake damage estimation was conducted for the provinces of Laguna and Bohol.

**Table II.7 Series of REDAS Training for Pilot LGUs**

Date		Target Area / Participants
Aug. 25 - 27, 2020	1 <sup>st</sup> Stage REDAS Online Training	Laguna Province / OCD-PDPS, CBTS, OADR4A, JICA Expert Team
Sep. 8 - 10, 2020	2 <sup>nd</sup> Stage REDAS Online Training	Bohol Province / OCD-OS, OADR7 and others

Source: JICA Expert Team

Based on the results of the above interview survey and the literature review, the current status and major issues in the development and maintenance of data, tools, and procedures that can be used to identify local disaster characteristics and select necessary DRRM measures in the LDRRMP formulation process were identified. These are identified in Table II.8.

**Table II.8 Available Data on Hazards, Exposure, and Vulnerabilities**

	Current Situation	Major Challenges
<b>HAZARD</b>	<p>Hazard maps for major natural disasters (such as earthquake, tsunami, volcanic eruption, flood, landslide, and high tide), which every LGU throughout the country can refer to in the LDRRMP formulation, have been developed and updated by responsible NGAs and academic research institutions.</p> <p>It is possible to check the available hazard maps on the website of GeoRiskPH (<a href="https://georisk.gov.ph/">https://georisk.gov.ph/</a>), Project NOAH (<a href="http://noah.up.edu.ph/#/">http://noah.up.edu.ph/#/</a>), and other NGAs' homepages.</p> <p>MGB is conducting the review and updating of 1:10,000-scale flood and landslide susceptibility maps for the entire country.</p>	<p>For gaining better understanding of local disaster risks as a process of LDRRMP formulation, the LGUs had an initial confusion on what maps to use. The lesson was that LGUs need to be guided on how to select suitable hazard maps from the ones that were developed based on the different analytical approaches (e.g., scenario model or probabilistic model).</p> <p>The NGAs (PHIVOLCS, PAGASA, and MGB) are tasked to inform the LGUs on the types of hazards they have, but are limited in manpower for the nation-wide campaign. There is an option to recommend the use of the GeoRisk.PH platform for planning purposes of the LGUs.</p> <p>In many LGUs, hazard maps are kept and maintained by the department in charge of local development planning (CLUP, CDP, and PDPFP). Also, some LGUs use outdated hazard maps prepared years ago without knowing that updated versions are available. There are challenges in sharing information among LGUs.</p>

<b>EXPOSURE</b>	<p>Various spatial data about land use and land cover are being generated from different sources. LGUs throughout the country can get them without charge according to each application process. But currently, those spatial data do not have attributed information and it is required to integrate available statistical sources, such as a census data in the spatial data, if population and building information are needed for evaluating disaster risks.</p> <p>Generally, the barangay-wise statistics (PSA) and land cover data (NAMRIA) are utilized for exposure database of CDRA.</p>	<p>The best option is for LGUs to develop their own exposure data based on detailed field survey which is recommended to conduct for quantitative disaster impact assessment using REDAS. But most LGUs do not have the capabilities and capacities to do. As one of the recommendations, the NDRRMC may explore a method to prepare a basic exposure database using census data and other available data at the Philippine Statistics Authority (PSA).</p> <p>The GeoRiskPH serves as a platform for the generated hazard maps from MGB, PAGASA, and PHIVOLCS. They also host exposure information from PSA (population), DepED (public schools), and DOH (health facilities). The LGUs may be able to use GeoRiskPH as an option for risk assessment tool.</p> <p>With the current capabilities of GeoRiskPH, three exposure data (population, public schools, and health facilities) are available. However, LGU feels that three exposure data are too small for a comprehensive analysis of disaster characteristics. The inclusion of data on crops and buildings by use is a challenge for the general purpose aspect of GeoRiskPH.</p>
<b>VULNERABILITY</b>	<p>Vulnerability curves of buildings to seismic shaking, flood inundation, and distractive wind (fragility curves of buildings to seismic shaking) have been developed in the GMMA-RAP (Risk Analysis Project for Greater Metro Manila Area) based on the historical records of past disasters, experiences and advises of experts in the country.</p> <p>There are few studies on engineering approaches about vulnerability assessment of buildings, infrastructures, and lifelines for each disaster in Philippines.</p>	<p>There is a need to verify the differences of building types and the characteristics produced under GMMA-RAP with each LGU or local area. This is because GMMA-RAP does not represent majority of the LGUs outside of the Greater Metro Manila Area.</p> <p>There is a way to utilize results of vulnerability assessment of buildings, infrastructures, and lifelines developed in other counties (e.g., results in Japan).</p> <p>The fragility and vulnerability curves produced under GMMA-RAP are only adopted for the evaluation of groups of a population of buildings (not for the evaluation of an individual building).</p>

Source: JICA Expert Team

**Table II.9 Current Evaluation Tools and Methods for Disaster Risk Assessment (DRA)**

	<b>REDAS (Rapid Earthquake Damage Assessment System)</b>	<b>CDRA (Climate and Disaster Risk Assessment)</b>	<b>GeoRiskPH</b>
<b>Main Developer</b>	DOST/PHIVOLCS	DHSUD for CLUP DILG for CDP	DOST/PHIVOLCS
<b>Main Objective (Initial Purpose) for Development</b>	To produce hazard and risk maps immediately after the occurrence of a strong and potentially damaging earthquake	To mainstream CCA-DRRM in the local plans (CDP, CLUP, LDRRMP, and LCCAP) To give findings for analyzing the situation of a concerned LGU from the aspect of CCA-DRRM impacts.	To provide protocols and platforms to share hazards, exposure, and risk information for planning how to reduce the risks of natural hazards

	<b>REDAS (Rapid Earthquake Damage Assessment System)</b>	<b>CDRA (Climate and Disaster Risk Assessment)</b>	<b>GeoRiskPH</b>
<b>Features of Methods</b>	Quantitative damage and loss evaluation using stand-alone software for hazard and risk simulation	Qualitative scoring method using dedicated score charts and matrices Overlay method using GIS software is applied for calculation of the amount of exposure in each hazard level spatially	Overlay method based on web-GIS technology is applied for calculation of hazard areas and estimate affected population in the concerned LGU.
<b>Current Situation</b>	REDAS is the official system to enable a quantitative estimation of damage and loss due to natural disasters in the Philippines. However, REDAS is still not popular for local planning. The result of REDAS has not been reflected in the process of LDRRMP formulation yet. The average number of organizations (such as NGAs, LGUs, and other research institutions) that undergo six-day training from 2006 is 10 organizations per year.	CDRA is one of the major tools to indicate vulnerable areas for each exposed element to climate change and natural disasters using qualitative scoring method. CDRA became popular for mainstreaming CCA-DRRM in CLUP and CDP under the support of DHSUD (HLURB) and DILG. Based on the existing training material for LDRRMP formulation developed by OCD-CBTS, CDRA is recommended as a tool for understanding local disaster risks.	It is possible for LGUs to gain the summary of hazard and risk information for their own administrative area directly from website of GeoRiskPH without requiring enhanced GIS knowledge and skills. Some new functions of GeoRiskPH are still under development.
<b>Major Challenges</b>	There is a big challenge on the aspect of popularization of REDAS utilization for local planning. It is difficult for PHIVOLCS to conduct more trainings in a year, considering that all users of REDAS. Since appropriate person with much knowledge about REDAS is required for operation, LGUs have to develop a human resource or employ an expert.	Since appropriate person with much knowledge about CDRA is required for operation, LGUs have to develop a human resource or employ an expert. It is not adequate for CDRA to estimate quantitative disaster damage and economic losses and effects of mitigation by countermeasure. DHSUD has a plan to upgrade the CDRA to improve usability of the system depending on the level of LGUs.	As of now, GeoRiskPH has a function to calculate the number of affected population and facilities (schools and health facilities) by barangay at the minimum. The simplicity of function is one of the advantages of GeoRiskPH, but it is not adequate for LGUs if they want to use original data about hazard and exposure, and estimate physical damages and economic losses based on their own database.

Source: JICA Expert Team

**[1-3]: Consider Risk Assessment Methods so that officials concerned on DRRM can Understand Local Disaster Risks and Realize Disaster Risk Reduction through Countermeasures.**

From the results of the activities in [1-1] and [1-2], it was found that the current disaster risk assessment in LDRRMP formulation is not fully utilized in the formulation of DRRM strategies with numerical targets for disaster risk reduction. Based on these results, the WG1 member initiated discussions on practical disaster risk assessment procedure closely related to the establishment of a

DRRM strategy and listing of necessary DRRM measures during the LDRRMP formulation stage. After a series of meetings as described below, it was decided to apply Damages and Losses Evaluation (DLE) in the LDRRMP formulation to identify local disaster characteristics and select necessary DRRM measures considering DLE's relevance to existing disaster risk assessment methods such as CDRA.

**Table II.10 Relevant Meetings of WG1**

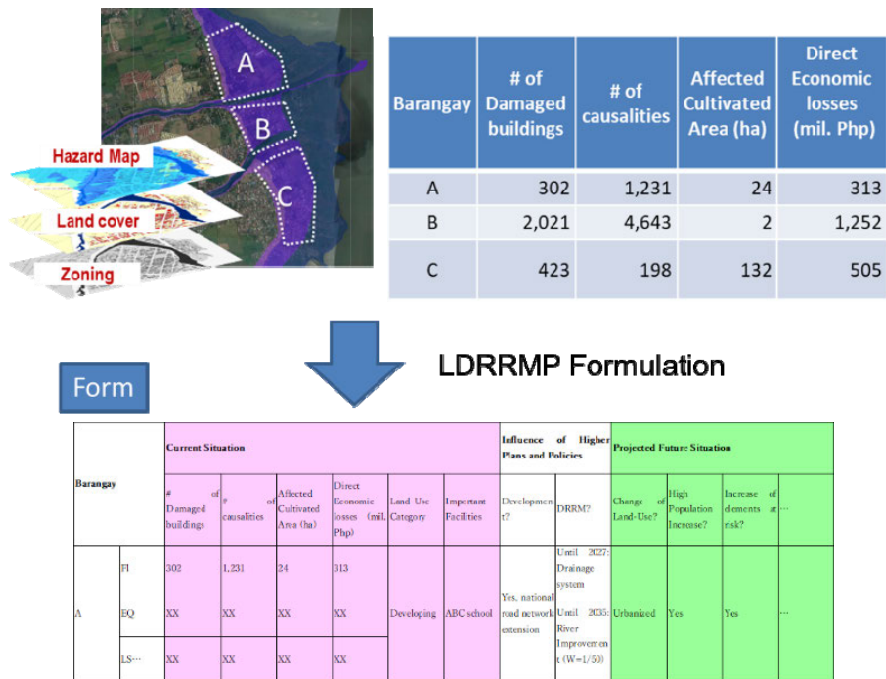
<b>Date</b>	<b>Type of Meeting</b>	<b>Main Agenda</b>
Sep. 14, 2020	Internal Meeting with OCD WG1 members	Introduction of proposed damages and losses evaluation procedure as a DRA method for LDRRMP formulation
Oct. 2, 2020	Internal Meeting with OCD WG1 members	Creation of a working relationship between WG1 and WG2 Reflecting result of DLE to set a DRRM Strategy and select priority countermeasures
Nov.9, 2020	Internal Meeting with OCD WG1 members	Relationship between current DRA methods and Damages and Losses Evaluation (DLE) Examples of DLE in case of seismic shaking and flood
Nov.24, 2020	Consultation Meeting with DOST/PHIVOLCS	Possibility to utilize REDAS as a tool of DLE for LDRRMP formulation
Jan 29, 2021	1 <sup>st</sup> TWG meeting	Presentation of results of surveys conducted since October 2019 showing the current available disaster risk assessment tools Introduce an initial idea of DRA procedure for the formulation of LDRRMPs
April 15, 2021	Internal Meeting with OCD WG1 members	Project updates on the results of consultative meetings conducted with national government agencies on the DRA Technical Guidebook
May 21, 2021	Internal Meeting with OCD WG1 members	Discussion on the draft DLE TG together with WG2 members and OCD
June 24, 2021	Consultation Meeting with OCD and DHSUD	Project Information Sharing with DHSUD on how CDRA is integrated in the DRA/DLE process of the project
July 23, 2021	2 <sup>nd</sup> TWG Meeting	Consultation with PHIVOLCS, OCD, PAGASA, and MGB on the draft TG. Additional recommendations from the member agencies were solicited.
Nov 9, 2021	3 <sup>rd</sup> TWG Meeting	Discussion of the initial major findings of the pilot activities on DRA/DLE
January 27, 2022	Internal Meeting with OCD WG1 members	Presentation of the revisions done on Version 3 of DLE
March 4, 2022	Internal Meeting with OCD WG1 members	Additional discussion on revisions done on Version 3 of DLE
March 30, 2022	Internal Meeting with OCD WG1 members	Additional discussion on revisions done on Version 3 of DLE
April 1, 2022	Meeting with Dr. Solidum And other officials from PHIVOLCS	Discuss the use of GeoRiskPh and REDAS as basic tools of DLE for LDRRMP and RDRRMP formulation
Apr. 4, 2022	4 <sup>th</sup> TWG Meeting	Discussion on the amendment of the DLE procedure. Confirmation of revision of the draft technical guidebook
Jul. 11, 2022	Internal Meeting with OCD WG1 members	Project updates on the progress of the pilot activity

Date	Type of Meeting	Main Agenda
Aug. 9, 2022	Consultation Meeting with DOST/PHIVOLCS	Possibility to upgrade some functions of GeoRiskPH in consideration of DLE for LDRRMP formulation
Sep. 13, 2022	Internal Meeting with OCD WG1 members	Project updates on the progress of the pilot activity Presentation of the revisions done on Version 4 of DLE
Dec. 9, 2022	5 <sup>th</sup> TWG Meeting	Discussion on the amendment of the DLE procedure. Confirmation of revision of the draft technical guidebook

Source: JICA Expert Team

When LGUs develop their own DRRM strategies in terms of reducing human casualties and economic losses, it is necessary to properly understand the impact of potential disasters that may occur in the future and to identify feasible measures to mitigate the residual risk, considering inherent disaster risks even after effective major structural measures are implemented. In order to make an objective judgment of this process, it is necessary to evaluate the disaster risk corresponding to the time series analysis before and after the countermeasures, and DLE, which can quantitatively estimate the damage. Such approach is considered effective.

The results of DLE are very simple. Available hazard, exposure, and vulnerability data are analyzed by GIS to calculate the affected population, number of facilities, and affected cultivated area per barangay in the case of cities and municipalities or per city/municipality in the case of provinces. If a building database containing structural information is available, the number of damaged buildings can also be estimated in detail. If the unit cost of building construction, price of crops, etc. can be set, direct economic losses can also be calculated.



Source: JICA Expert Team

Figure II.2 Example of DLE Procedure

**[1-5]: Support the Review of Risk Information in the Pilot Areas Based on the Existing Hazard / Risk Assessment by Using the Risk Assessment Methods Considered in [1-2].**

**A) 1<sup>st</sup> Stage of Pilot LGUs**

The following is a summary of the activities undertaken to support the 1st stage of the pilot LGUs.

**Table II.11 Activities Undertaken to Support the 1st Stage of Pilot LGUs**

<b>Region</b>	<b>Pilot LGUs</b>	<b>Activities</b>
R4A	Laguna Province	Review of the current DRA results Evaluation of seismic impact Evaluation of flood impact Recalculation of flood impact Preparation of all outputs of GeoRiskPH 1-day Workshop on DRA/DLE
	Calamba City	Evaluation of flood impact 1-day Workshop on DRA/DLE
R7	Bohol Province	Review of the current DRA results Evaluation of seismic impact Preparation of all outputs of GeoRiskPH 1-day Workshop on DRA/DLE
	Tubigon	Review of current DRA results Provision of the updated hazard maps 1-day Workshop on DRA/DLE

Source: JICA Expert Team

- **Confirmation of the implementation status of the current disaster risk assessment in Laguna Province, Calamba City, Bohol Province, and Tubigon Municipality:** After reviewing the documents provided by concerned DRRMO, it was confirmed that Laguna Province and Bohol Province have the results of the DRR-CCAVA conducted several years ago for the development of the PDPFP, and that Calamba City and Tubigon Municipality had conducted CDRA several years ago for the development of their CDP and CLUP. It was clear that these assessed data (e.g., spreadsheets for risk score calculation) could be used directly for the DLE results.
- **Seismic Impact Assessment for Laguna and Bohol Provinces:** Scenario-based seismic impact assessment was conducted by PHIVOLCS using REDAS "SHAKE". As a result, the number of fatalities, building damages, and direct economic losses per barangay in both provinces were estimated.
- **Flood Impact Assessment in Laguna Province:** A flood impact assessment based on the MGB 1:10,000 Flood Vulnerability Map and the flood hazard map prepared under the READY project was conducted by PHIVOLCS using REDAS "FloAT". As a result, the number of fatalities, building damages, and direct economic losses per barangay in Laguna were estimated.



- **Flood Impact Assessment in Calamba City:** Based on the probabilistic flood hazard maps with 5-year, 25-year, and 100-year rainfall return periods prepared by Project NOAH, a flood impact assessment was conducted by JICA Expert Team using the same approach of REDAS "FloAT.
- **Preparation of all outputs of GeoRiskPH for Laguna and Bohol provinces:** PHIVOLCS provided the spreadsheet including Barangay-wise processing data for ground shaking, landslides, tsunamis, liquefaction, floods, storm surge, and strong winds.
- **One-day workshop on DRA/DLE for pilot LGUs:** One-day workshops on disaster risk assessment with WG1 members were held on July 30, 2021 (Calamba City and Laguna Province), August 10, 2021 (Tubigon Municipality), and August 11, 2021 (Bohol Province). The activities revealed that the four pilot LGUs have CDRA (cities and towns) and DRR-CCAVA (province) results, and it was confirmed that the CDRA and DRR-CCAVA processing data could be used as DLEs for the LDRRMP development. The workshop explained how to extract and organize DLE results from DRR-CCAVA and CDRA processing data (e.g., spreadsheets for risk score calculation) to be used in LDRRMP.

#### B) 2<sup>nd</sup> Stage of Pilot LGUs

The following is a summary of the second stage pilot activities of the concerned LGUs.

**Table II.12 2nd Stage Pilot Activities of Concerned LGUs**

Region	Pilot LGUs	Activities
R4A	Batangas Province	Review of the documents provided Briefing Session conducted Provision of REDAS
	Bauan	Review of the documents provided Briefing Session conducted Provision of GeoRiskPh and REDAS
	Mabitac, Laguna	Review of the documents provided Briefing Session conducted Provision of GeoRiskPh and REDAS Conduct of Validation Workshop
R7	Batuan, Bohol	Review of the documents provided Briefing Session conducted Provision of GeoRiskPh and REDAS Conduct of Validation Workshop
R11	Davao City	Review of the documents provided Briefing Session conducted Provision of REDAS Conduct of Validation Workshop

Source: JICA Expert Team

- **Conduct of Briefing Sessions:** WG1 members conducted DLE briefing sessions for every pilot LGU of the second stage. The briefing sessions were conducted online or in-person for each pilot LGU, as many LGUs were busy with election activities that took place in May

2022. The briefings were based on the six steps of DLE: establishing the DLE team, identifying the data and capacity to be held, selecting the target disasters, selecting the DLE process to be applied, and preparing the DLE Form to show the output. In addition, a schedule was determined on what to implement and when to implement so that the LGUs could proceed with the DLE in phases. Homework assignments were also set as milestones.

- **Conduct of follow-up meetings:** Based on the schedule set at the briefing, the progress of the pilot LGUs' activities was reviewed, and technical assistance on DLE procedure was provided in person as needed. Pilot activities have been delayed in some LGUs because of the time required to conclude MOAs due to the pre- and post-election period.
- **Review of the Forms as DLE deliverables and conduct of validation workshop:** WG1 members organized a validation workshop to review the contents of the DLE Forms organized by Mabitac Municipality, Batuan Municipality, and Davao City as DLE deliverables. The validity of the DLE results was assessed by charting the affected population and economic losses based on the data contained in the DLE Form. The result of the validation was done comparing with the information/details on the hazard maps and their experiences. The DLE Form was finalized by improving the modifications identified in the workshop.

#### **[1-6]: Develop Draft Guidebooks for Reviewing Hazard / Risk Information.**

##### **A) Development of DLE Technical Guidebook**

Based on the results of activities [1-1] and [1-2], the JICA Expert Team prepared Version 1 of the DLE technical guidebook, which was introduced to the WG1 members at the 1st TWG meeting held on January 29, 2021. The guidebook was subsequently updated after consultation and review by WG1 members, and its content was confirmed as Version 2 at the 2nd TWG meeting held on July 23, 2021. Version 2 was applied to the DLE procedures in the first stage of pilot activities (Laguna Province, Bohol Province, Calamba City, and Tubigon Municipality).

Based on the results of the first stage of pilot activities, the following main issues were identified.

- Each pilot LGU conducted its own CDRA and DRR-CCAVA in order to update CLUP and PDPFP. The Planning and Development Office (PDO) led the implementation of the CDRA and DRR-CCAVA and managed all results, including spatial data of hazard and exposure. On the other hand, personnel from other offices, including the DRRMO, lacked understanding of the CDRA or DRR-CCAVA result and its process.
- Each pilot LGU continued to use hazard maps that they had for a long time and unaware that updated or current versions of the maps were available.
- LGUs were interested in applying disaster impact assessment tools (e.g., REDAS), but found the process too technical and difficult to handle. As a result, it was difficult for them to use damage estimation tools on their own, and the results of damage estimation have not been implemented in the formulation of the LDRRMP.

Therefore, the JICA Expert Team proposed the following additions to the guidebook to address the above issues and to make the content easier for LGUs to understand. Discussions were held with WG1 members at the 3rd TWG meeting on November 9, 2021.

- Add a step to validate the DLE results by comparing the results of the DLE analysis with original data (such as hazard maps and exposure data) before using the DLE result to formulate the LDRRMP.
- Implement a guide that allows LGUs to easily review and obtain up-to-date hazard maps and exposure data that can be used in the development of the local plan.
- Introduce a guide to provide technical assistance to LGUs using disaster impact assessment tools such as REDAS, SWERVE, etc.
- Clarify the position and characteristics of DLE in the general DRA as a part of the guidebook to increase understanding of what DLE is.
- Add technical guidance to the guidebook that allows the DLE process to proceed in a step-by-step, easy-to-understand manner.
- Add specific examples to the guidebook of how the results of DLE can be used in the development of the LDRRMP (i.e., how to post the results of DLE in the DLE Form).
- Add an explanation of the relationship between DLE and PDNA (Post Disaster Needs Assessment).

Based on the results of discussions with WG1 members, the guidebook was updated and approved as Version 3 at the 4th TWG meeting held on April 4, 2022. Version 3 was applied to DLE procedures in the second stage of pilot activities (Batangas Province, Bauan Municipality, Mabitac Municipality, Batuan Municipality, and Davao City).

From the result of the second stage of pilot activities, the following new findings were identified.

- While the use of GeoRiskPH is recommended for LGUs that do not have a capacity on GIS operation, there were LGUs that used their own exposure data such as farmland, agricultural products, and buildings by use (residential and commercial) in addition to the use of GeoRiskPH.
- Some LGUs that have a capacity on GIS operation conducted DLE using their own data such as boundaries, building distribution, land use, etc., different from the data generated by the NGA.
- Some LGUs noticed that the hazard maps used in the formulation of their current local plans were not updated and tried to find ways to obtain up-to-date ones.

Since many other LGUs may face similar concerns when developing and updating their LDRRMPs, the guidebook was made more "user-friendly". WG1 members made the following revisions in the guidebook, which was approved as Version 4 during the 5th TWG meeting held on December 9, 2022.

- Add definition of terms to provide a better understanding of the terms used in the guidebook.
- Revise the LGU's self-assessment procedure to facilitate the selection of the appropriate DLE approach for LGUs. Direct instructions were provided on what DLE approach an LGU could take based on the results of the LGU's self-assessment.
- Add "Consolidation and Summary of Results" to Step 7.
- Add specific examples utilizing the five DLE approaches and the results of the second pilot activity in the annex.

Note that as of January 2023, the respective DLE processes for Batangas Province and Bauan Municipality are currently underway; the results for Batangas will be included in Version 4.

## B) Preparation of Regional DLE Guidance

Parallel to the preparation of the guidebook for the development of the LDRRMP, the RDRRMP DLE guidance was prepared for the development of the RDDMP that began in June 2022. Initially, it was considered to prepare a separate technical guidebook, but after discussions on how to utilize DLE results during the RDRRMP development phase, it was finally decided to integrate the DLE implementation part into the RDRRMP guidebook formulation. WG1 has been developing of RDRRMP, which defines the basic policy of DLE, and the guidance on how to organize and utilize the analysis results from GeoRiskPH and REDAS SHAKE to support the RDRRMP. The guide is made as following concepts:

- Non- GIS-based Analysis is adapted by OCD-Rs from the viewpoint of simplicity and universality of the DLE Procedure.
- Hazard maps and exposure data authorized by NGAs or utilized in related plans like the Regional Development Plan are used.
- GeoRiskPH and REDAS SHAKE (only for Earthquake Shaking) are the standard DLE approaches.

### (3) Output2

#### **[2-1]: Review the Current Status of RDRRMPs/LDRRMPs and Identify Challenges**

A series of consultation meetings with related agencies was held to review the status of Regional and Local DRRMPs and identify challenges.

**Table II.13 Meetings conducted during the baseline survey**

Date	Consulted Agencies	Milestones
Nov.12, 2019	DSHUD (HLURB)	<ul style="list-style-type: none"> <li>• Collected information on CLUP formulation process and challenges to cascade guidance to LGUs, etc.</li> </ul>
Nov.19, 2019	DPWH	<ul style="list-style-type: none"> <li>• Obtained information on DRRM Programs and Projects of DPWH (Earthquake Management and Resiliency Program, West Valley Fault Vulnerability Assessment, post-rehabilitation projects, compliance, etc.)</li> </ul>

Date	Consulted Agencies	Milestones
Nov.21, 2019	NEDA	<ul style="list-style-type: none"> <li>Obtained information on the following: TA for DRR-CCA mainstreaming in PDPFP; status of PDPFP; and review process and monitoring PDPFP</li> </ul>
Nov.29, 2019	DENR-CCS	<ul style="list-style-type: none"> <li>Obtained information on the Risk Resiliency and Sustainability Program, DRRM-CCA capacity building, and funding</li> </ul>
Dec.6, 2019	DENR-RBCO	<ul style="list-style-type: none"> <li>Collected information on the River Management Plans of major River Basins in Region 4A and 7.</li> </ul>
Dec. 17, 2019	DILG	<ul style="list-style-type: none"> <li>Shared possible areas of harmonization of LDRRMP and LCCAP</li> </ul>
March 3, 2020	DPWH	<ul style="list-style-type: none"> <li>Collect information on building design standards</li> </ul>

Source: JICA Expert Team

Based on the results of the consultation meetings mentioned above and documents review, the following five major challenges related to LDRRMP formulation were identified.

- A) Low vertical and horizontal linkage with other related plans, causing difficulties to formulate applicable and comprehensive DRRMP.
- B) Unclear targets over the short term and mid-term causing difficulties to formulate realistic DRRMP.
- C) Low consideration of measures to reduce disaster risk itself causing difficulties to formulate effective DRRMP.
- D) Low priority on DRRM resulting in insufficient or inadequate budget to implement DRRM measures.
- E) Unclear guides and rules on LDRRMP and low dissemination of guidebooks to LGUs causing challenges for LGUs to formulate and implement DRRMP compliance with NGAs' requirements.

Regarding RDRRMP, the purposes, contents, and basic rules to formulate it are not defined. Therefore, RDRRMP purposes differ per region, and national ministries or offices meet difficulties to allocate appropriate budget for each region. Therefore, a guidebook setting the basic rules on the formulation of RDRRMP was prepared under WG2 based on continuous discussions with OCD head office and regional offices, and related agencies (detailed in Activity [2-5]).

**[2-2]: To Consider DRRM Countermeasures Based on Disaster Risk Information / Consider the Options of Disaster Risk Reduction Measures to Reduce Human Casualties and Economic Losses Based on Disaster Risk Information That Should Be Implemented at Each Level of Governance (National, Regional, Provincial, City, and Municipality).**

**1) Proposed list of possible DRRM PPAs (Programs, Projects, and Activities)**

Resulting from [2-1], a list of possible DRRM measures, including both structural and non-structural measures, to be implemented by each level of governance (National, Regional,

Provincial, City, and Municipality) was considered and will be consolidated based on further consultations with the pilot LGUs and WG members.

As of February 2023, the guidebook only includes a list of floods and earthquakes in consideration of their frequency of occurrence and needs for DRRM measures. Through the pilot activities, other hazards such as the land subsidence in Bohol Province and its secondary disasters, droughts, and other were recognized. Therefore, this list which will also include coastal hazards will be reviewed and upgraded.

**Table II.14 Examples of DRRM Measures Against Flood**

<b>Measures</b>	<b>Merit (Advantage)</b>	<b>Demerit (Disadvantage)</b>	<b>Implementing Agencies</b>	<b>Thematic Area</b>
<b>Examples of Structural Measures Against Flood</b>				
River improvement	Significant reduction of flood risk	In urbanized areas, the land acquisition may be challenging.	DPWH	Prevention/Mitigation
Drainage improvement	Effective reduction of flood risk	Land area acquisition is necessary along the channel.	LGUs	Prevention/Mitigation
Retarding basin	Effective reduction of flood risk	A large land area may be needed depending on the size of the structure	DPWH	Prevention/Mitigation
<b>Examples of Nonstructural Measures Against Flood</b>				
Installation of Early Warning System	It can cost-effectively reduce the risk of human loss.	It will not be effective unless the residents take appropriate actions.	LGUs	Preparedness
Distribution of stockpiles	May prevent secondary damage after a disaster occurs	Difficult to determine the appropriate amount and allocation in advance	LGUs	Preparedness
Land Use Control/ Zoning Ordinance	Avoid disaster risk	Relocation issues and legal compliance	LGUs	Prevention/Mitigation
Relocation	Exposure to hazards can be largely avoided.	Compensation for lands/buildings, consensus building	LGUs	Prevention/Mitigation

Source: JICA Expert Team

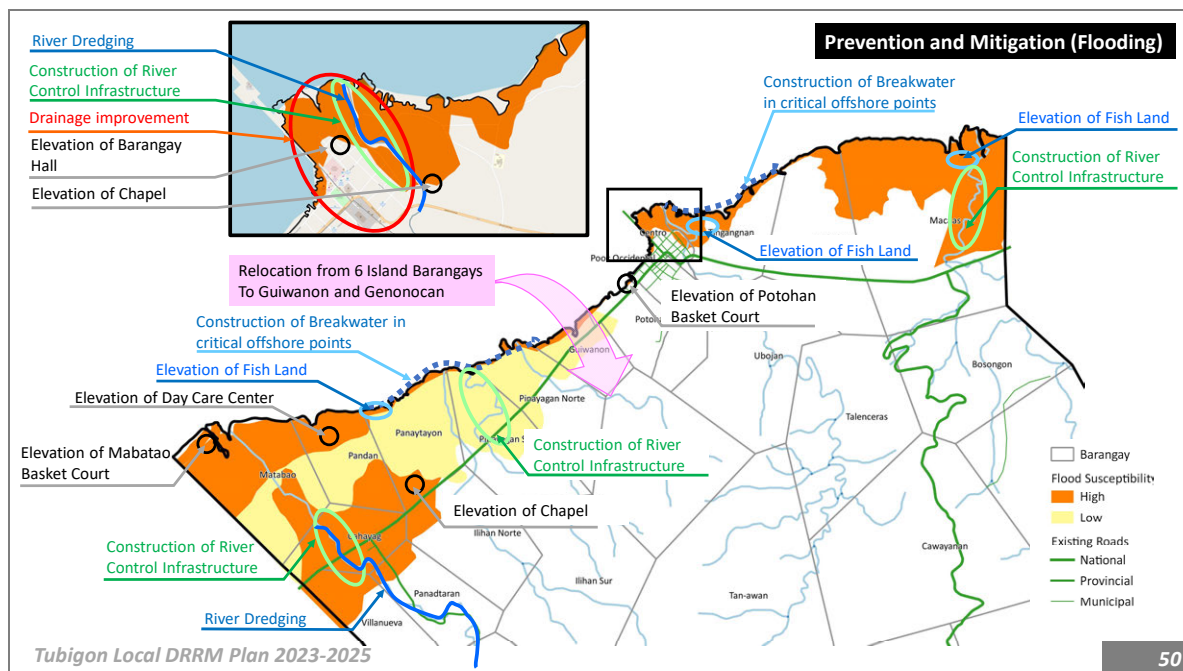
**Table II.15 Examples of DRRM Measures Against Earthquake**

Measures	Merit (Advantage)	Demerit (Disadvantage)	Implementing Agencies	Thematic Area
<b>Examples of Structural Measures Against Earthquake</b>				
Reinforcement or rebuilding of public hospitals, schools, and nursing homes	Once completed, significantly reduce earthquake risk at the locations where an unspecified large number of people gathers	A temporary building may be required.	LGUs	Prevention/Mitigation
Reinforcement or rebuilding of private hospitals, schools, nursing homes, and malls	Once completed, significantly reduce earthquake risk at the locations where an unspecified large number of people gathers	<ul style="list-style-type: none"> <li>✓ Temporary building may be required.</li> <li>✓ Requires incentive of building owners such as financial support from LGUs</li> </ul>	Private, with financial support from LGUs and/or NGAs	Prevention/Mitigation
Reinforcement or rebuilding of government buildings and other public buildings for an emergency, such as the ones along the major roads and evacuation centers	Once completed, significantly reduce earthquake risk at the facilities during emergencies.	A temporary building may be required.	LGUs	Prevention/Mitigation
Reinforcement or rebuilding of private buildings for an emergency, such as the ones along the major roads and evacuation centers	Once completed, significantly reduce earthquake risk at the facilities during emergencies.	<ul style="list-style-type: none"> <li>• Temporary building may be required.</li> <li>• Requires incentives of building owners such as financial support from LGUs</li> </ul>	Private, with financial support from LGUs and/or NGAs	Prevention/Mitigation
Reinforcement or rebuilding of public residential and commercial buildings	Once completed, significantly reduce earthquake risk	A temporary building may be required.	LGUs	Prevention/Mitigation
Reinforcement or rebuilding of private residential and commercial buildings	Once completed, significantly reduce earthquake risk	<ul style="list-style-type: none"> <li>• Temporary building may be required.</li> <li>• Requires incentives of building owners such as financial support from LGUs</li> </ul>	Private, with financial support from LGUs and/or NGAs	Prevention/Mitigation
<b>Examples of Nonstructural Measures Against Earthquake</b>				
Application of seismic building code	No further measures will be required for the new buildings.	Difficult to apply for existing buildings	LGUs	Prevention/Mitigation
Land-use regulation	Exposure to hazards can be largely avoided.	Large extent of land acquisition is necessary. (It depends on the number of households for relocation.)	LGUs	Prevention/Mitigation
Utilization of existing EWS system	It can deliver information after an earthquake.	It will not be effective unless the residents take appropriate actions.	LGUs	Response

Source: JICA Expert Team

## 2) Consideration of Project, Program and Actions (PPAs) in the Pilot LGUs

The LGUs under the Stage 1 pilot testing have identified a long list of needed structural and non-structural measures to achieve their DRRM targets reflecting disaster risk profile. The DRRM measures correspond to per hazard and element at risk, and classified according to the following: prevention and mitigation, preparedness, response and early recovery, and rehabilitation.



Source: JICA Expert Team

**Figure II.3 Example of the PPAs in Tubigon (including collaboration with DPWH)**

## 3) Consideration for the promotion of Inclusive Disaster Risk Reduction and Management

The Sendai Framework for DRR outlines the inclusive, all-of-society approach in reducing disaster risk. Strengthening disaster resilience comes also with investing in gender-responsive programs and activities, establishing mechanisms for the participation of the vulnerable and marginalized sectors, and ensuring implementation of policies that empower women, children, persons with disabilities, indigenous peoples, among others.

In the Philippines, the revised National Disaster Risk Reduction and Management Plan (NDRRMP 2020-2030) positions gender mainstreaming as a major cross-cutting consideration, and plans for initiatives to reduce gender inequalities during disasters. NDRRMP emphasis the need to promote women's participation as decision makers in the DRRM planning process. In addition, DSWD, the vice-chair for the disaster response thematic area, is responsible for providing programs to vulnerable households and communities that may be deeply affected by the impacts of disasters, including climate change.

In the Philippines, poverty reduction and gender equality are positioned as national priorities, and many organizations are working on these issues. Therefore, Working Group 2 will continue to



consult and discuss with related organizations, and add more concrete explanation in the guidebook as much as possible.

In the guidebook prepared under WG2, "Promote Inclusive Disaster Risk Reduction and Management" the above considerations were considered in formulating DRRM measures. As mentioned above, further discussions with OCD and DSWD regarding the specific contents to be included in the guidebook will be continued. In particular, DSWD has faced challenges during the COVID-19 pandemic in terms of relief supplies and subsidies to individuals and communities during emergencies.

In the Guidebook, Working Group 2 recommends the establishment of a DRRM planning team to enable comprehensive planning, and proposes a list of members. This list also includes vulnerable groups.

<Reference> Vulnerable Groups identified as Proposed Members of the DRRM-PT (extracted from the Tables 2 and 3 of the Enhanced Guidebook on the LDRRMP Formulation as of February 2023)

LGU may identify other important groups necessary to be part of the planning process such as:

1. Vulnerable sectors may include women, youth and children, persons with disabilities or differently abled, elderly, indigenous groups, internally displaced persons (IDP), others,
2. CSOs may include Faith-based organizations, organized volunteer groups,
3. Indigenous Peoples' Mandatory Representative will also be considered, especially LGUs with high presence of IPs (in coordination with National Commission on Indigenous Peoples),
4. Persons with Disabilities Affairs Office (PDAO) for Province,
5. Armed Conflict Areas: Include the NGAs and Institutions for peace and security concerns,
6. BARMM LGUs: Members will be based on the existing organizational structure and condition of the LGUs,
7. River Basin Focal Persons or Organizations in cases of sectors located in the vicinity of rivers,
8. Others (such as business sector; academe (SUCs)).

During the pilot activities, the participation of the Social Welfare and Development Office (SWDO) was encouraged to deal with the issues related to vulnerable groups. During the session, SWDO's officers shared their experiences and challenges faced to supervise and coordinate the operations in the evacuation centers and provide relief goods during and after disasters. For example, Laguna Province, Calamba City and Davao City, which have high density areas including informal settlements, are having difficulty in determining the target population for assistance. In addition to the participation of SWDO, women's participation was encouraged in the pilot activities, and coordination was made with each LGU's DRRMO to balance male and female participation.

As a result of the pilot activities, the LDRRMPs of the Provinces of Laguna and Bohol includes some inclusive PPAs such as the construction and management of multi-purpose evacuation centers following the DSWD's guidelines. In addition, each LGU recognized the needs to enhance disaggregated database to identify more vulnerable community groups.

**Table II.16 Some Approached in Integrating DRRM Inclusivity Across All Thematic Areas**

Structural Measures	Non-Structural Measures
Improving access, particularly of disadvantaged and vulnerable groups, to key services and related facilities	Participatory risk assessment, inclusion of vulnerable sectors
Address housing needs of urban dwellers	Combat spatial and zoning inequalities by prioritizing the needs of the disadvantaged and vulnerable (Land-Use)
Evacuation routes and evacuation centers accessible to persons with disabilities	Set budgets and resource allocations according to the needs and priorities of all, and include dedicated gender equality and rights resources
EWS that also benefits PWDs	
Establish women’s communal spaces in safe and accessible locations	Support community mechanisms to enable inclusion of women participation in local disaster risk management committees
	Support women’s organizations to organize microinsurance policies to allow community women to protect their tools and sources of livelihood
	Strengthen Social protection

Sources: ADB. (2014). Gender-Inclusive Disaster Risk Management; UNDRR. (2022). Policy Brief Gender-Responsive Disaster Risk Reduction; ADPC (No year). Integrating Rights And Equality In Disaster Risk Reduction And Climate Resilience

**[2-3]: Support the formulation of RDRRMPs/LDRRMPs in the pilot areas based on the risk assessment conducted in 1-5.**

[2-3] is described in [2-4].

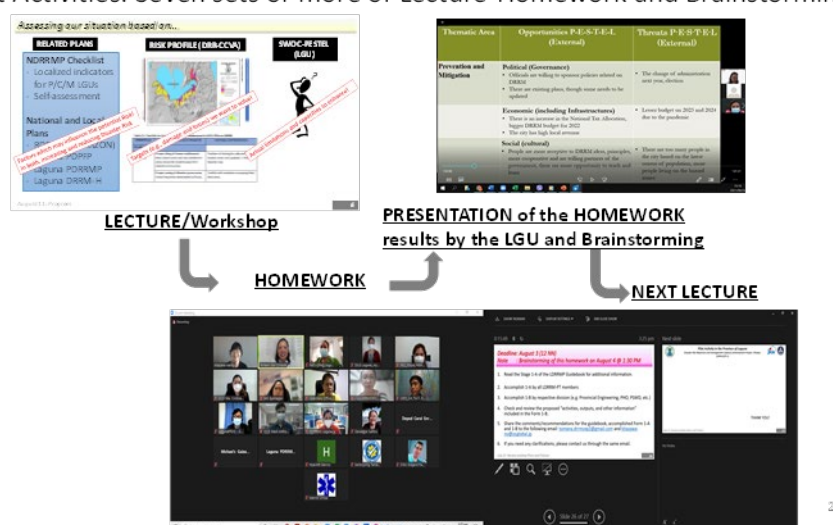
**[2-4]: Review related local plans such as CDP, CLUP, and LCCAP, and support the adjustment of RDRRMPs/LDRRMPs in the pilot areas.**

The 1st stage of the LDRRMP formulation pilot testing was conducted from July to December 2021. Online lectures were utilized as well as minimal face-to-face workshop for the blank forms to be filled out needed for the LDRRMP. The City of Calamba, Municipality of Tubigon, Province of Laguna, and Province of Bohol are updating their respective LDRRMP with the support of OCD and Japanese Expert Team. Additional workshops were undertaken by Calamba City and Laguna Province under the leadership of their respective LDRRMOs and Local Planning and Development Office.

In addition to the online sessions, face-to-face workshop were held in March 2022 (Calamba City and Laguna Province) and April (Bohol Province) in order to deepen understanding on the outputs targeted by the Project and consolidate the Forms.

Furthermore, to fast track the formulation/updating of LDRRMPs in the Pilot LGUs, additional workshop sessions were planned and held in July-August 2022 to finalize the forms needed to update the LDRRMPs (tentative date for the presentation to each Sangguniang Bayan was September 2022).

## Pilot Activities: Seven sets or more of Lecture-Homework and Brainstorming



Source: JICA Expert Team

**Figure II.4 Process of Pilot Activities Stage 1 (Online)**

### 1) Clarification of the roles and responsibilities of each office based on the review of related plans

- Harmonization of local plans and demarcation of roles and responsibilities:** As stated in the LDRRMP formulation guidebook, the DRRM plan is a cross-sectoral plan and each department or office of the LGU is important for the formulation of a comprehensive plan. Therefore, in the preparatory stage, the creation of a Local DRRM Planning Team (LDRRM-PT) is encouraged and the composition of members is included in the guidebook. LDRRMO or Planning office will act as the LDRRM-PT Secretariat, and the team is expected to include members from the Engineering, Agriculture, Social Welfare Development, and other offices. In accordance with RA10121, the LGU has an LDRRMC whose members are the heads of each department, and the planning team is composed of the LDRRMC technical staff. The main role of the planning team is to review and analyze the status of development projects, DRRM initiatives, and potential impacts of disasters on each sector, and validate the results of the analysis by taking into account the issues related to DRRM faced by each sector. One of the major benefits of having a planning team is to avoid the duplication of activities. Conversely, there are some activities which are not carried out, and it will be crucial to identify the budget source and implementing office.
- Promotion of synergy between different levels of governance:** The national and regional plans usually describe the overall policy, including the basic policy on DRRM and goals in view of contributions to the international framework. Local DRRMPs are more specific and identify concrete DRRM measures needed to reduce disaster risk in the locality. Therefore, the implementation of the LDRRMP will contribute to the achievement of national and regional goals. The section, "3) Implementation of Stage 2 based on the lessons learned from Pilot Activity Stage 1" describes how the provincial

DRRM targets were considered in the Municipality of Mabitac and how the Barangay Plan were reflected into the LDRRM Planning of Batuan.

## **2) Issues that emerged during Stage 1 pilot activity and proposal to lighten their impacts**

- Need to update hazard information: The 4 LGUs of Stage 1 need to update their hazard information. For example, the increased urbanization in Laguna Province and Calamba City, and land subsidence generated by the 2013 earthquake in Bohol Province and Tubigon Municipality have caused changes to the hazard characteristics in these areas, and hazard or susceptibility maps cannot totally illustrate such new hazard characteristics.
- Consideration of appropriate DRRM measures, implementing structure, and budget scale: Through the creation of the LDRRM-PT, various sectors will participate in the DRRM planning, and comprehensive DRRM measures can be considered. For example, drainage issues in low-lying areas is caused not only by natural factors such as topography and waterway networks, but also by human factors such as low maintenance of existing drainage network, illegal dumping by residents and others. Therefore, even within the same locality, the issues faced by each sector are different and it is important to consider what actions can be taken by each office to achieve the same purpose to reduce disaster risks. However, since the number of involved offices increased, the list of DRRM measures may become enormous, and the implementation of the plan may require an unrealistic budget. Therefore, the LDRRM Investment Plan and Utilization Reports were collected and compared with the budget size required, to recalibrate the needed budget.
- Reflection of the disadvantages and advantages of online activities: As detailed in “6.1 Activities for achieving the project purpose and overall goal,” new tools (such as Zoom Online Meeting, SNS platform, and others) were used to conduct the pilot activities. In the future, the utilization of such technologies is expected to increase. The advantages of remote tools include the flexibility to schedule planning team meetings and the easy and timely exchange of information. However, the biggest disadvantage is the difficulty to work on the same documents and discuss with each other at the same time. Therefore, in Stage 2, the set-up of the pilot activities was reviewed and hybrid activities were conducted.
- Need to enhance the leadership of OCD and LGUs: In Stage 1, the project team took the initiative in preparing and explaining lecture materials and forms, and acted as moderator of the meeting. In Stage 2, the implementation method of the activities was reviewed so that the Secretariat responsibilities of the pilot activities could be transferred to the LGUs and OCD.

## **3) Conduct of Stage 2 by reflecting on the lessons learned from Stage 1 (ongoing)**

- Implementation of hybrid remote and face-to-face activities: LGUs have to formulate a large number of plans. Therefore, the formulation of LDRRMP needs to be effective and efficient (e. g., the duration to plan should be short). With this purpose, the activities of Stage 2 were carried out by combining the advantage of remote and face-to-face activities. Specifically, the explanation based on the LDRRMP formulation guidebook was given remotely and

recorded. The recording was shared with the planning team for review. After the remote session, each planning team member was assigned a “homework” related to his/her office task. During the face-to-face meetings, the results of each assignment were shared, and DRRM targets and DRRM measures in view of the future development prospects of the LGU were discussed.

- Involvement of Stage 1 pilot LGUs and OCD Regional Offices: The Province of Laguna was involved as Secretariat to implement the activities in Mabitac Municipality. Specifically, in the activities of Mabitac, PDRRMO explained the contents of the Provincial DRRM Plan updated through Stage 1, and upgraded the expected roles of Mabitac to achieve the Provincial DRRM targets. For the activities of Davao City, a cooperative system has been established with OCD Regional Office.



Source: JICA Expert Team

**Figure II.5 Involvement of Laguna PDRRM as Secretariat in the conduct of activities in Mabitac**

#### 4) Changes to conduct pilot activity stage 2 (ongoing)

The stage 1 pilot LGUs were selected from the perspective of reducing economic damage, so their income class was high (Laguna, Bohol, Calamba and Tubigon are Income Class 1 LGUs. In Stage 2, low-income LGUs were selected to consider the issues to disseminate the Guidebooks nationwide. Compared to high-income LGUs, the human resources, budget, and equipment required to implement DRRM are limited, but that does not mean that LDRRMO have less competence, knowledge, and awareness of disaster risk reduction. Therefore, WG2 conducted activities with the same contents and methods, but added tips specific to LGUs’ context.

- Check and validation of basic data: In order to set future DRRM targets and strategically plan DRRM measures, the understanding on the characteristics of local hazards and

anticipation of the possible impacts is the basis. In rural areas, housing and assets are concentrated in small areas and the use of the average Barangay population density to calculate the exposed elements is not always appropriate. Therefore, in WG2, the past disasters records were reviewed first, and based on the DLE results of WG1, the disaster risk profile was confirmed together with LDRRM-PT.

- Consideration of the utilization of barangay data, plans and human resources: In Batuan Municipality, the 70% allocation for disaster prevention, mitigation and preparedness in the recent years remains at around PhP 3 million. The implementation of the structure is carried out under the engineering office by using the 20% development fund and LDRRMF is used for the implementation of non-structural measures. However, as a result of reviewing the 15 Barangay DRRM plans of Batuan, there is also a small budget allocated by the barangays for community preparedness and quick response. Therefore, the planning team reconsider the roles of the municipality and barangays, and the activities that can be implemented collaboratively (such as inspection and maintenance of drainage channels). The planning team also made a proposal for using the community-based monitoring system data to update their evacuation centers management plans and prepositioned the needed goods. (Community Based Monitoring System is a system introduced in 2019. LGUs survey their population by age and gender and share their data with the Philippine Statistics Authority (PSA). Regarding Batuan, the 2014 CBMS population was 14,921. However, the PSA 2015 census was only 12,766).

### 1) Review of the characteristics of the LGU with emphasis on the points to be tackled with care

**Review on the Characteristics of Batuan**

The total population of Batuan based on the 2014 Community-Based Monitoring System (CBMS) results was 13,015, with an increase of 584 over the 2010 census population survey results.

From only 1,817 in 1903, the population increased to seven (7) times fold after more than a century.

The highest increase was recorded during the year 1918 when the population almost doubled with the annual growth rate of 4.68%.

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What is WorldPop (<https://www.worldpop.org/>)?  
 WorldPop is an interdisciplinary applied research group focusing primarily on supporting improvement of the spatial demographic evidence base and the use of these data for health and development applications, including addressing the Sustainable Development Goals. Its mission is to enable decision makers to harness the power of spatial demographic data through high quality applied research, to achieve a vision of a world where everyone, everywhere is counted in decision making.

## 2) Review of past disaster records and explanation on how the DLE form is prepared

### What happened in the past

Date	Bohol Earthquake Feb. 8, 1990	Earthquake Oct.15, 2013	Flood (2009) 2009	Flood (2011) 2011	Flood (2013) 2013	Flood (2017) 2017	Flood (2019) 2019
Aloja		With Records					
Behind The Clouds	With Records	With Records				With Records	
Cabacnitán	With Records	With Records					
Cambacay		With Records					
Cantigdas	With Records	With Records				With Records	
García		With Records			With Records		
Janlud		With Records					
Poblacion Norte		With Records					With Records
Poblacion Sur		With Records					
Poblacion Vieja	With Records	With Records		With Records			
Quezon	With Records	With Records				With Records	
Quirino	With Records	With Records			With Records		
Rizal	With Records	With Records					
Rosariohan	With Records	With Records	With Records				
Santa Cruz	With Records	With Records					

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### What may happen in the future

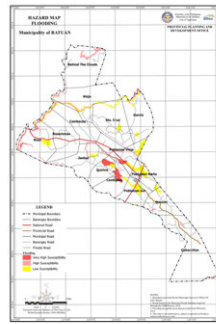


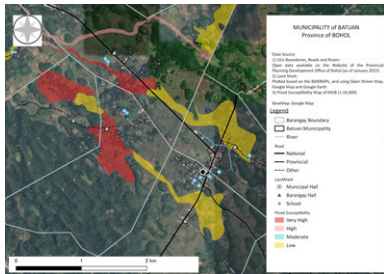
Table 1: DLE Form 1-C for Flooding of Batuan, Bohol

ID Barangay	2021 Total Population	2021 Estimated Population (200000)				Total
		Male	Female	0-14	15-64	
Aloja	200	100	100	100	100	200
Behind The Clouds	200	100	100	100	100	200
Cabacnitán	200	100	100	100	100	200
Cambacay	200	100	100	100	100	200
Cantigdas	200	100	100	100	100	200
García	200	100	100	100	100	200
Janlud	200	100	100	100	100	200
Poblacion Norte	200	100	100	100	100	200
Poblacion Sur	200	100	100	100	100	200
Poblacion Vieja	200	100	100	100	100	200
Quezon	200	100	100	100	100	200
Quirino	200	100	100	100	100	200
Rizal	200	100	100	100	100	200
Rosariohan	200	100	100	100	100	200
Santa Cruz	200	100	100	100	100	200
<b>Total</b>	<b>2,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>2,000</b>

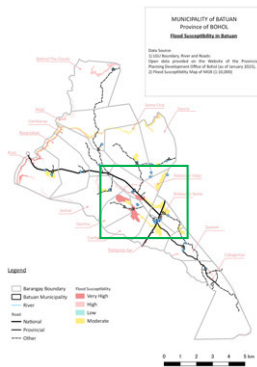
## 3) Considerations of the causes of damage (on the left, explanation by the Engineering Office on why the flood prone areas have increased after the 2013 earthquake)

### Ideas to set the DRRM Targets for Flood

Where are the locations prone to flood?



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### Ideas to set the DRRM Targets for Flood

What are the impacts?



- Issues on Public Safety
- Closure of roads
- Foundation of Schools
- Foundation of BRGY Hall
- Flooded houses
- Interrupted Businesses

Direct Damages to peoples, Properties, Assets etc.  
Indirect and maybe long impacts to businesses, Government Offices etc.



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### Ideas to set the DRRM Targets for Flood

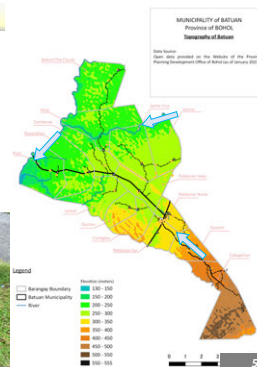
What are the causes of flood?

- Overflow of Loboc River,
- Topography (existence of low-lying lands and small creeks),
- Low capacity of the drainage system,

Etc.



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## 4) Review of the 15 Barangay DRRM Plans

### Population Characteristics

	Duration of the BDRMP	Land Area (in hectares)	Number of Purok	Number of Households	Total Population	Number of Males	Number of Females
Aloja	2020-2025	703	7	139	496	266	230
Behind The Clouds	2021-2026	975	4	64	261	133	128
Cabacnitán	2021-2026	1,010	7	163	817	435	382
Cambacay	2020-2025		7	172	738	368	370
Cantigdas	2020-2025	390	7	186	925	445	480
García	2020-2025	576	7	128	626	320	306
Janlud	2020-2025	508	7	198	934	465	469
Poblacion Norte	2020-2025	355	7	399	1,906	962	944
Poblacion Sur	2020-2025	561	7	270	1,302	650	652
Poblacion Vieja	2020-2025	444	7	236	1,356	724	632
Quezon	2021-2026	398	7	152	739	396	343
Quirino	2021-2026	298	7	127	572	299	273
Rizal	2021-2026	868	7	317	1,670	742	928
Rosariohan	2021-2026	647	7	272	1,223	623	600
Santa Cruz	2020-2025	1,544	7	291	1,356	724	632
<b>TOTAL</b>			<b>102</b>	<b>3,114</b>	<b>14,921</b>	<b>7,552</b>	<b>7,369</b>

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Data Source: BDRMP

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Republic of the Philippines Province of Bohol Municipality of Batuan Barangay Poblacion Sur							COMPREHENSIVE BARANGAY DISASTER RISK REDUCTION AND MANAGEMENT (BDRRM) PLAN (2020 - 2025)	
Barangay Disaster Risk Reduction and Management Fund Investment Plan (BDRMP) January to December 2022							Barangay Poblacion Sur, Batuan, Bohol	
2022 ANNUAL INVESTMENT PROGRAM FOR 5% LOCAL DISASTER RISK REDUCTION AND MANAGEMENT							MISEREOR	
AIP Reference Code	Program/Project Activity/Description	Implementing Office/Department	Starting Date	Completion Date	Expected Output	Funding Source		
(1)	(2)	(3)	(4)	(5)	(6)	(7)		
<b>70% of 5% LDRRM Fund:</b>								
<b>General</b>								
1	Purchase of accident insurance thru red cross	Barangay Council/Secretary	January 2022	December 2022	35 Accident insurance coverage purchase thru Philippine red cross at Php 200.00 per person	70% of 5% LDRRM		
	Maintenance of DRR related equipment's	Barangay Council/Secretary	January 2021	December 2021	Batteries purchased for megaphone	70% of 5% LDRRM	5,000.00	5,000.00
		Barangay Council/Secretary	January 2021	December 2021	Fuels and lubricants for generator and chainsaw	70% of 5% LDRRM		
3	Replenishment of First Aid Kit	Barangay Council/Secretary	January 2022	December 2022	Purchase bandage, betadine, gauze cottons, surgical scissors, medicines, alcohol and among others	70% of 5% LDRRM	5,000.00	5,000.00

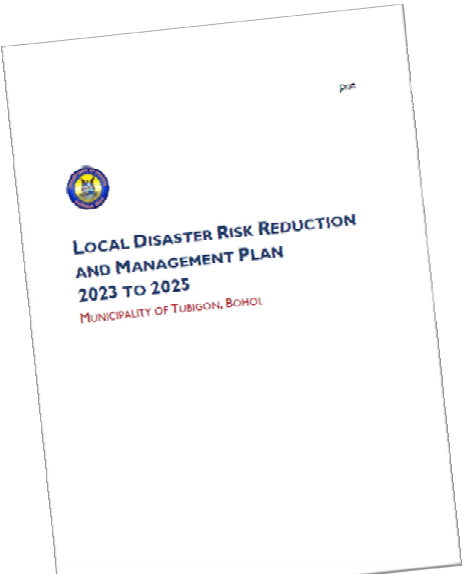
Source: JICA Expert Team

Figure II.6 Highlights of the Activities in Batuan

## 5) Contents of the updated LDRRMP

There are existing LDRRM formulation manuals and training modules in the Philippines. In addition, the Joint Memorandum Circular (JMC) series on the review of LDRRMPs, issued in 2017 and 2018 (detailed in the activity of Output 3), already provided a template for the LDRRMPs. Therefore, as detailed in Activity [2-5], the structure and contents of the LDRRMP were not significantly changed.

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Source: JICA Expert Team

**Figure II.7 Table of contents of the updated LDRRMP**

## [2-5]: Develop Draft Guidebooks for the Formulation and Revision of RDRRMPs/LDRRMPs.

### 1) Process to develop the Guidebook

The first draft was prepared and presented to OCD Regional Planning Officials on November 19, 2020, as one session of the Planning Family Conference. To consolidate both guidebooks on the formulation of LDRRMP and RDRRMP, a series of consultation meetings with OCD Central and Regional counterparts and related national government agencies were held to obtain inputs and recommendations for the enhancement of the LDRRMP Guidebook.

**Table II.17 Meetings Conducted to Consolidate the LDRRMP Formulation Guidebook**

Date	Consulted Agencies	Milestones
June 18, 2020	DOH	Discussed the integration of DRRM-H in the LDRRMP
Oct.9, 2020	DPWH	Discussed Stage 3 on Planning of DRRM Measures
01 Dec 2020	Presentation of LDRRMP Version 0 to Cluster 1 NGAs	Obtained comments and recommendations



<b>Date</b>	<b>Consulted Agencies</b>	<b>Milestones</b>
03 Mar/ 09 Oct/ 09 Dec 2020; 04 Feb 2021	Consultation meeting with DPWH	Obtained inputs for structural DRRM measures (standards, costing, and policies)
15 January 2021	Presentation of LDRRMP Version 0 to Cluster 2 NGAs	Obtained comments and recommendations
1 Feb 2021	Meeting with NEDA	Discussed the M and E process flow of NEDA vis-à-vis M an E stage of LDRRMP guidebook version 0
11 Feb 2021	Meeting with DHSUD	Presented Land Use Planning and DRRM – Japan Experience Discussed possible alignment process and entry of CLUP and LDRRMP Presented JICA-DRRMCEP2 Project updates DHSUD shared updates on simplification of CDRA and updating of CLUP-DRRM CCA guidebook
March to April 2021	1st LDRRMP Guidebook revision	Integrated applicable comments and recommendations in LDRRMP Guidebook
5 April 2021	Presented revision on LDRRMP Guidebook Ver. 0	Presented consolidated revisions based on inputs of OCDR and WG2 NGAs Obtained additional inputs from OCD WG 2 members
April to Mid-June 2021	2nd LDRRMP Guidebook revision	Completed LDRRMP Guidebook Version 1
July to December 2021	LDRRMP Formulation Guidebook Pilot Testing	Completed online lecture sessions and exercises on the 5 stages of the LDRRMP Formulation Guidebook for the 4 pilot LGUs under stage 1: City of Calamba, Laguna Municipality of Tubigon, Bohol Province of Bohol Province of Laguna
22 October 2021	WG 2 Meeting	Presented Initial Observations and Learnings from the Stage 1 Pilot Testing Obtained recommendations for Version 2
23 November 2021	Presented LDRRMP Formulation Guidebook to NDRRMC NGAs	Drafted LDRRMP Version 2 based on the initial observations and learnings from the LDRRMP Formulation Guidebook pilot testing and recommendations of the NGAs Highlighted salient features of the LDRRMP Formulation Guidebook reflecting international and national trends on DRRM Harmonizing higher and local policies and plans related to sustainable development (PDPFP, CLUP, CDP, LCCAP, etc.) Setting long-term DRRM targets not limited to the period of the plan; Justifying / Anticipating how residual risks may change in the future with the implementation of the Plan; Promoting the synergy between LGUs, NGAs, private sectors, academe and other stakeholders.
January to April 2022	Provided continuous technical assistance to Stage 1 pilot LGUs	Continuation of remaining outputs for the Local DRRM Planning for the completion of the updated LDRRMP
May 2022	3rd LDRRMP Guidebook revision	Drafted LDRRMP Guidebook Version 3 Major highlights include: Additional membership in the Local DRRM Planning

Date	Consulted Agencies	Milestones
		Team (i.e., offices such Tourism, NCIP, NCDA, vulnerable sectors such IPs, PWDs, etc.) Reviewing of related plans such River Basin Master Plan, GAD, etc. Alignment process with the outcomes and indicators of the NDRRMP

Source: JICA Expert Team

In the enhanced LDRRMP guidebook, some of the issues in the baseline study were addressed by:

- A) Providing process on the alignment of low vertical and horizontal linkage with other related plans;
- B) Developing criteria in prioritizing DRRM measures to establish short-medium-long term targets;
- C) Expanding sources of budget for DRRM measures (e.g., NGAs, other LGU sources such as GAD, general funds, etc.)

**Table II.18 Meetings Conducted to Consolidate RDRRMP Formulation Guidebook**

Date	Consulted Agencies	Milestones
March to April 2022	Consultation Meeting with the OCDROs and NGAs	Presented initial outline of RDRRMP GB Ver.0 Obtained comments and recommendations from OCDROs and NGAs through 1st vetting
May 2022	OCD	Drafted RDRRMP GB Version 1
June 2022	Revision of RDRRMP GB Version 1	TWG Workshop: Development of the RDRRMP Formulation Guidebook Drafted RDRRMP GB Version 2

Source: JICA Expert Team

The Regional DRRM Plan Guidebook was drafted based on the series of consultations with OCD and NGAs. The Guidebook Version 3 was disseminated to the OCD before the pilot testing was scheduled in latter part of August 2022.

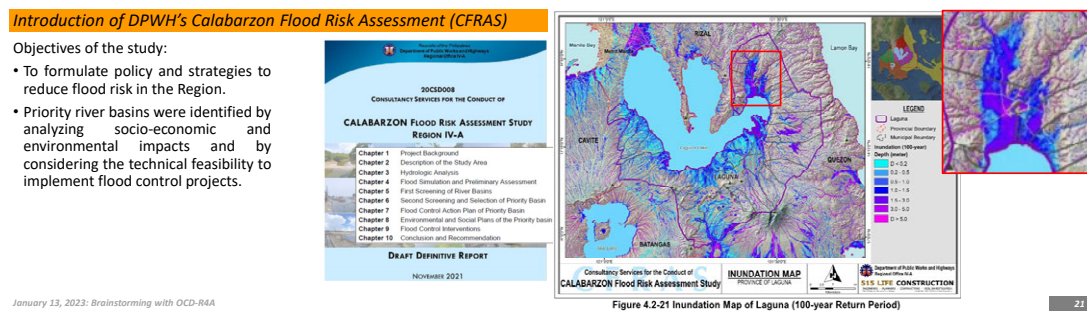
## 2) Salient Points of the LDRRMP and RDRRMP Formulation Guidebook

The two guidebooks formulated under WG2 were based on the following five points.

- A) Reflection of international and national trends on DRRM
- B) Harmonization of higher and local policies and plans related to sustainable development (PDPFP, CLUP, CDP, LCCAP, etc.)
- C) Setting of long-term DRRM targets beyond the period of the plan
- D) Justification and anticipation of how residual risks may change in the future with the implementation of the Plan, and
- E) Promotion of the synergy between/among LGUs, NGAs, Private, Academe and other Stakeholders.

In particular, among NGA's DRRM measures, DPWH flood control measures have greatly contributed to the reduction of flood risk. However, although the DPWH plans are shared with DRRM-related offices, including OCD, these are not always reflected in the DRRM plans. One of the reasons is that the timeframes for infrastructure planning, including flood control planning, and DRRM planning are different. For example, flood control plans are targeted 20 or 30 years, while DRRM plans for local governments are often set for the three-year term of Local Chief Executives (LCEs). With this result, the setting of long-term DRRM targets not limited to the planning period is newly added to promote the formulation of DRRM plan considering long-term planning.

During the pilot activities, as much as possible, DPWH studies and projects were introduced with the consent of DPWH. Specifically, the outline of the Calabarzon flood risk assessment study currently being implemented by DPWH Region-IVA was introduced to OCD-Calabarzon and Mabitac Municipality as a reference to consider DRRM targets and measures.



Source: JICA Expert Team

### Figure II.8 Introduction of DPWH's initiatives to Pilot Region and LGU

In addition, the pilot activities in Davao City, which are currently being prepared, will be linked to the flood control plan formulated under another project of JICA.

### 3) Enhancement of the existing materials

As mentioned above, this project proceeded with the activities by revising existing and on-going efforts and training manuals in the Philippines as much as possible.

As shown in Figure II.9, Stage 0 was added to promote the creation of the LDRRM-PT which will prepare the needed documents to facilitate the discussion during cross-sectoral meetings.

Then, since the core part of the LDRRM-PT is the DRRM target, DRRM countermeasures, and budget allocation, the chapter on Thematic Area Planning was divided into three stages and explained more concretely.

*Some steps were restructured to enhance the “Storyline” of the LDRRMP*



Counterpart Meeting (November 21, 2022)

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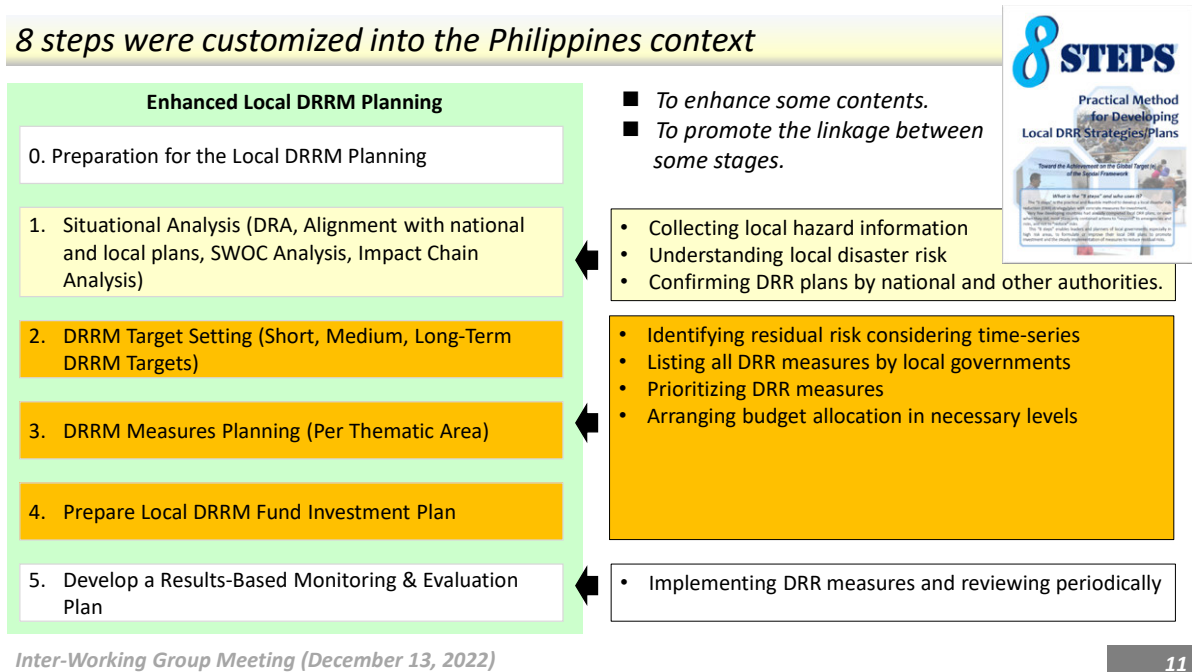
Source: JICA Expert Team

**Figure II.9 Comparison Between the Existing and Enhanced Guidebooks**

**4) Contextualization of the JICA 8 Steps in DRRM Planning**

The main purpose of WG2 is to promote the formulation of practical LDRRMP. Therefore, a review of laws, guidelines, and memoranda related to DRRM was conducted, and rooms for improvement were provided by reflecting on the 8 steps.

Figure II.10 shows how the 8 steps are reflected into the enhanced LDRRMP formulation guidebook.

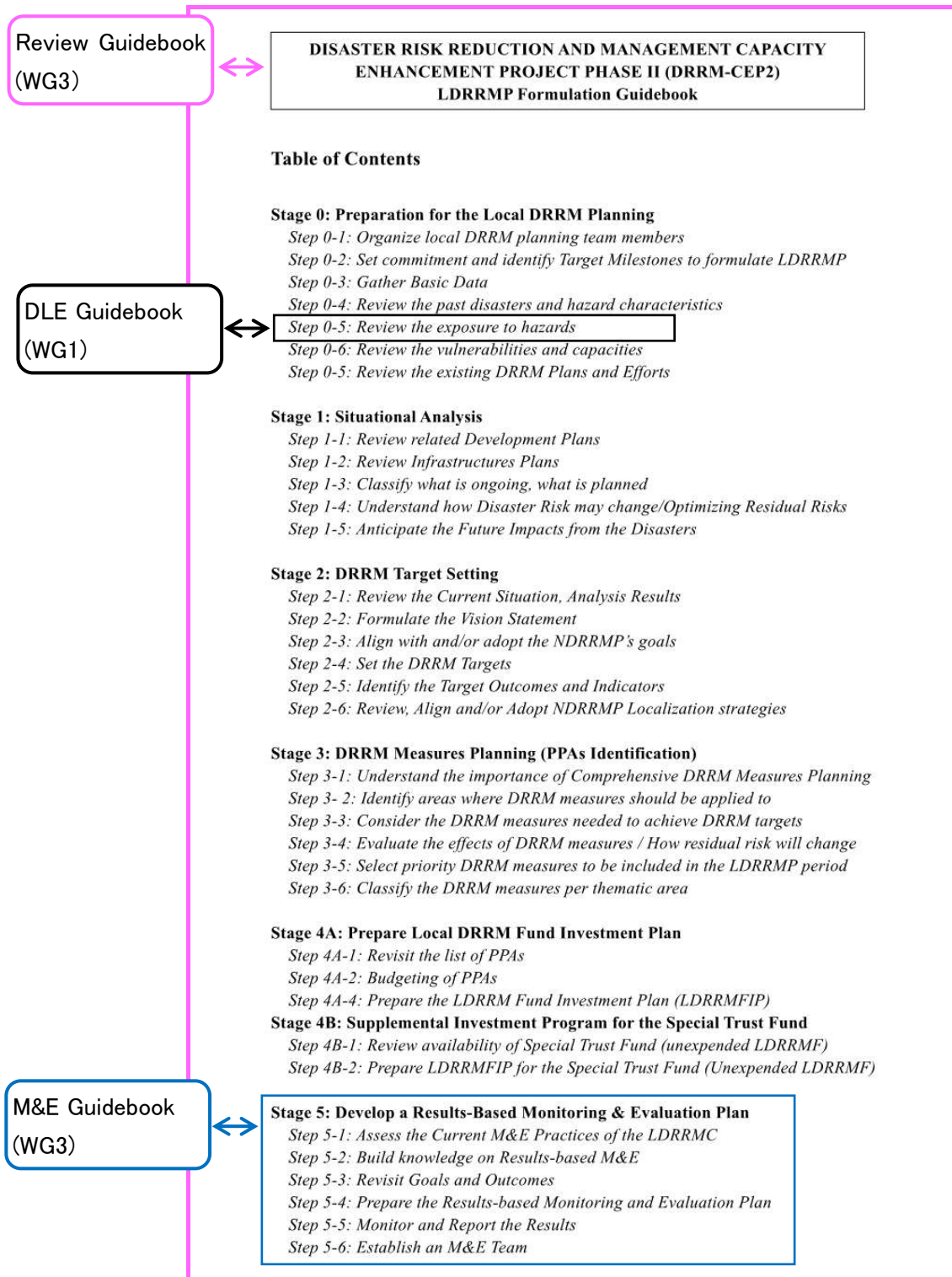


Source: JICA Expert Team

**Figure II.10 Reflection of the 8 Steps in DRRM Planning**

**5) Relationship between the guidebooks formulated by WG2 and other WGs**

Figure II.11 shows the relationship between the guidebooks prepared under WG and by other WGs. The guidebook formulated by WG1 supplements Steps 0-5, and the M&E guidebook of WG 3 supplements Stage 5. In addition, the review guidebook of WG3 is a guidebook for checking the contents of the LDRRMP formulated by following the Guidebook prepared by WG2.



Source: JICA Expert Team

**Figure II.11 Relationship between the guidebooks by other WGs**

**(4) Output 3**

**3-1): Review the Current State of OCD’s Information Management on RDRRMPs/LDRRMPs and Identify Challenges.**

Under WG3, two aspects are considered:

- A) Review of the LDRRMP to check the contents of the LDRRMP.
- B) Monitoring and Evaluation (M&E) of the LDRRMP to track the progress, accomplishments, and achievements against targets of the LDRRMP.

A series of consultation meetings with related agencies was held to understand the current status of information management on DRRMPs in the Philippines and identify challenges.

**Table II.19 Meetings Conducted During the Baseline Survey for the Review**

<b>Date</b>	<b>Consulted Agencies</b>	<b>Milestones</b>
Oct.18, 2019	Baseline interview with LGA	Collect information on LGA Monitoring and Evaluation System on DRR-CCA
Nov.6, 2019	Roundtable Discussion with OCD Regional Directors – I, III, IVA, V, VI, VII, CAR, and MIMAROPA	Presented the JICA-DRRMCEP 2 Presented initial results of the OCDR baseline survey. Obtained positive experiences, gaps, and challenges, and immediate actions carried out. Facilitated sharing of inputs by different regions on LDRRMP review.
Nov.20, 2019	Baseline interview meeting with DBM	Obtained information about the current processes and challenges on the LDRRMF preparation, approval, and utilization.

Source: JICA Expert Team

In addition, the results of the LDRRMPs review conducted by OCD-Regional offices, COA audit reports from 2014 to 2018, and LDRRMF Utilization Reports of Regions IV-A and VII were reviewed.

Based on the results of the consultation meetings mentioned above and documents review, the following five major challenges related to LDRRMP formulation were identified.

- A) Difficulty to conduct the review itself because the guides are unclear and, consequently, the review process and items to check differ for each Region;
- B) Difficulty to assess the implementation status because of low reporting from LGUs.

**Table II.20 Meetings Conducted During the Baseline Survey on M&E**

<b>Date</b>	<b>Consulted Agencies</b>	<b>Milestones</b>
28 Jan 2021	WG 3 Meeting	Presented project updates and directions Discussed initial criteria for sampling of LGUs for LDRRMP review
11 Feb 2021	WG 3 Meeting	OCD-PDPS presented the Gawad Kalasag Seal features and checklist (in line with the M and E)

Date	Consulted Agencies	Milestones
March 2021 to present	Ongoing review of RDRRMPs	Initial summary of contents

Source: JICA Expert Team

**[3-2]: Consider OCD’s Information Management, Monitoring, and Evaluation System and Methods for the Formulation, Revision, and Implementation of RDRRMPs/LDRRMPs.**

[3-2] is described in [3-3].

**[3-3]: Develop draft guidebooks and monitoring and evaluation structure in order to implement the system considered in 3-2**

Two guidebooks, one on the Review and one on the M&E, were considered and developed.

**Table II.21 Process to Develop the Guidebook on M&E**

Date	Stakeholders	Outline
Feb.-March 2022	OCD, OCD-RO, Pilot LGUs of Stage 1	Rapid Appraisal (Desk Review and Stakeholder Consultations)
April – Aug. 2022	OCD, OCD-RO	Presentation of Rapid Appraisal Report and Proposed Outline
July-Aug. 2022	-	Guidebook Version 0
Sept.-Oct. 2022	Pilot LGUs of Stage 1	Consultation with Pilot LGUs on the Guidebook
Nov.-Dec. 2022	-	Guidebook Version 1

Source: JICA Expert Team

**Guidebook on the Review of LDRRMP:**

The purposes of this guidebook are to: 1) Assess the compliance of the LGU based on the required forms of the Enhanced Local DRRM Formulation Guidebook of WG2; 2) Determine the alignment of the LDRRMP with the major related plans; 3) Assess adherence of the preparation process and content of the Local DRRM Plan on the Local DRRM Plan; 4) Assess the budget allocation of the identified PPAs in the LDRRMP vis-à-vis Annual Investment Plan; and 5) Provide a basis for improvements in the Local DRRM Plan.

It proposes a two-level review which are the self-assessment conducted by the LDRRMC. and the external review conducted by the Inter-Agency Review Team.

The guidebook is composed of the main text explaining the points to review the LDRRMPs and a checklist to show the results of the assessment.

**Guidebook on the Monitoring and Evaluation of LDRRMP:**

This Guidebook refers to monitoring and evaluating the progress, accomplishments, and achievements against targets, and aims to: 1) Adhere to guiding principles (NDRRMP) and uphold results orientation among users in line with government direction; 2) Provide guidance whenever applicable (through standard and universally-accepted frameworks and guidebooks/approaches/templates provided by existing policies and frameworks), thereby addressing



concerns and findings from the assessment; and 3) Impress upon the users that M&E is necessary and helpful for implementers.

**(5) Output 4**

**[4-1]: Review the current state of DRRM training, including the construction of the NDRRM Training Institute, and identify challenges.**

OCD-CO WG4 conducted meetings and discussions with relevant organizations, studied the status of LDRRMP training by OCD, and performed Individual Capacity Assessment (ICA) to understand the current status of LDRRMP-related trainings in the Philippines. This study was conducted covering the period 2019-2020.

**Table II.22 Meetings with Agencies/Organizations Conducting Trainings Related to DRRM**

Date	Organization	Date	Organization
Oct.10, 2019	DILG-LGA <sup>1</sup>	Nov.28, 2019	OCD-Region 4A
Oct.18, 2019	OCD-CBTS <sup>2</sup>	Nov.29, 2019	NGA-DENR <sup>9</sup>
Oct.23, 2019	DILG-LGA	Dec.12, 2019	OCD-Region 7
Oct.23, 2019	OCD-CBTS	Dec.12, 2019	Bohol Provincial
Oct.31, 2019	NGO-CDPFI <sup>3</sup>	Dec.13, 2019	HLURB-CVR <sup>10</sup>
Nov.12, 2019	HLURB CO <sup>4</sup>	Dec.19, 2019	DSWD-DRRMB <sup>11</sup>
Nov.18, 2019	DOST-PAGASA <sup>5</sup>	Jan.23, 2020	NGO-RWAN <sup>12</sup>
Nov.19, 2019	DILG-BLGD <sup>6</sup> , LDPD <sup>7</sup>	Jan.27, 2020	UP-SURP <sup>13</sup>
Nov.21, 2019	NEDA-RDS <sup>8</sup>	Feb.6, 2020	Cavite Province
Nov.28, 2019	Municipality of Los Baños	July.1, 2020	PHIVOLCS-REDAS <sup>14</sup>
Nov.28, 2019	Laguna Province		

Notes:

1. Department of Interior and Local Government-Local Government Academy
2. OCD- Capacity Building & Training Services
3. NGO- Center for Disaster Preparedness Foundation, Inc.
4. Housing and Land Use Regulatory Board-Central Office
5. DOST-Philippine Atmospheric Geophysical Astronomical Services Administration
6. Department of the Interior and Local Government-Bureau of Local Government Development
7. Local Development Planning Division
8. National Economic and Development Authority Regional Development Services
9. National Government Agency-Department of Environment and Natural Resources
10. Housing and Land Use Regulatory Board-Central Visayas Region
11. Department of Social Welfare and Development-Disaster Response Management Bureau
12. NGO-Rice Watch Action Network
13. University of the Philippines -School of Urban and Regional Planning
14. Philippine Institute of Volcanology and Seismology-Rapid Earthquake Damage Assessment System

Source: JICA Expert Team

Also, the JICA Expert Team participated in the LDRRMP training conducted by the OCD-RO and in the DLE and LDRRMP Stage 1 lectures being conducted by DRRMCEP2. (Specified in Activity [4-3])

**Table II.23 Types of LDRRMP Related Trainings**

<b>Date</b>	<b>Training</b>	<b>Type</b>
26-28 Feb. 2020	DRRMP (Region VII)	Face to Face
11-13 Mar. 2020	DRRMP (Region V)	Face to Face
24-27 Aug. 2020	REDAS	Blended
1-3 Dec. 2021	GEORISK	Blended
9-13 Jun. 2022	DRRMP (Region IX)	Blended

Source: JICA Expert Team

Based on the above baseline survey results and review of the materials, the challenges in LDRRM training implementation were summarized during the WG4 discussions. These challenges are as follows:

**A) Issues in strategies and implementation status**

- In the OCD-CO, there is no clear strategy for training implementation at the LGU level.
- The implementation of training for LGUs depends on the budgetary planning of the OCD-ROs. Also, it is based on the requests of LGUs, hence it is difficult for OCD-CO to control the priorities of LGUs in the implementation of training.

This situation makes it difficult to align OCD-CO strategies as long as the trainings are implemented on individual priorities based on the OCD-RO's budget or on a request basis from LGUs. Therefore, for LDRRMP trainings to be implemented nationwide, it is important for OCD-CO to have a clear policy and sufficient budget to implement them based on its priorities. It is also important that the OCD-RO understand the priority policy and that the trainings conducted under the OCD-RO's budget are based on the OCD-CO's policy.

**B) Trainer**

- Most DRRMP and TOT trainings are provided by the OCD-RO personnel.
- Trainees who have undergone TOT do not often become trainers for the Basic Training.
- Not all trainees who participated in TOT will be qualified trainers.

Merely taking the current TOT (as of May 2020) is not enough to guarantee qualified trainers. Trainers who can respond to technical challenges and provide follow-up support need to be trained as experts. A clear strategy for training trainers as experts should be formulated separately, and the establishment of a trainer framework should be considered.

**C) Roles, responsibilities, and capability of OCD RO**

- The OCD ROs were identified to be playing an important role in the formulation of LDRRMP for LGUs.
- Since OCD ROs need to support, on the average, about 100 LGUs, it is necessary for OCD to have a pool of trainers who can be dispatched at the regional level.

To reduce the burden on OCD-ROs, the current pool of trainers should be further enhanced and the number of trainers needs to be increased systematically. In addition, in terms of support methods,

consideration should be given not only to physically dispatching trainers, but also in making extensive use of the website, for example in seeking technical advice, and a contact point for inquiries, presenting case studies, and enhancing the FAQs.

#### **D) Result of observation of trainings**

- In the training sessions observed, the content and number of sessions were not necessarily the same from trainer to trainer. There is a chance that the content will vary depending on the trainer's area of expertise.
- Especially in H/RA sessions, it is important to explain how to integrate the results of the assessment into the plan, but there is not enough availability of trainers who can explain this point at the regional level.
- The UNDP LDRRMP Manual does not have a section on risk assessment and analysis. Since the reference material for training is the UNDP manual, trainings did not include comprehensive training session on risk assessment.

It is necessary to enhance the H/RA sessions and reinforce the part of the session that explains the concept of incorporating the results of evaluation into the plan.

#### **E) Other DRR-related trainings**

- LGUs are required to develop various plans in regional planning, and training programs and guidebooks have been developed by the agencies in charge.
- Trainings and tools have been developed for H/RAs at various levels and for various goals, but there are not enough trainers who can explain how to use the H/RA tools for planning.
- The importance of the need for LGU planning department personnel having the capacity is also pointed out.
- The importance of coaching/mentoring after the training is widely acknowledged by the implementing organizations in all training programs.
- Concern about the lack of human and financial resources is also a common issue.

Harmonization and coordination (and integration where necessary) of the tools and processes utilized by the National Government Agency (NGA) for regional planning are necessary to facilitate easing the burden on LGUs and promote coordination among the individual plans. Coordination with other organizations is also one of the keys to disseminating training activities, and there must be no discrepancies in content directions (uniformity of direction is required) among related training programs.

#### **[4-2]: Consider the draft training structure for regions and LGUs.**

Based on the issues organized in the baseline survey in Activity [4-1], the following points were considered when examining the training implementation structure.

**Table II.24 Issues and Response to Be Considered for Formulating Training Implementation System**

	<b>Issue</b>	<b>Response</b>
1	OCD-CO does not have a training implementation strategy and cannot control the prioritization of training implementation.	Establish a policy for prioritizing the implementation of trainings at OCD-CO.
2	OCD-RO is overburdened with training responsibilities. The quality of trainers cannot be guaranteed.	Enhance the trainers' pool, sustain and systematically increase the number of trainers.
3	Content of training differs from trainer to trainer.	OCD-CO disseminates the objectives to LGUs nationwide through orientation. Prepare slides to be presented for trainers.
4	Weakness of planning to reflect risk assessment results.	Enhance the H/RA part; introduce DLE explanations. Enhance WS referring to the map.

Source: JICA Expert Team

Based on the above efforts to address the issue, as well as the results of the observation in Activity [4-3] below, the training implementation system was reviewed.

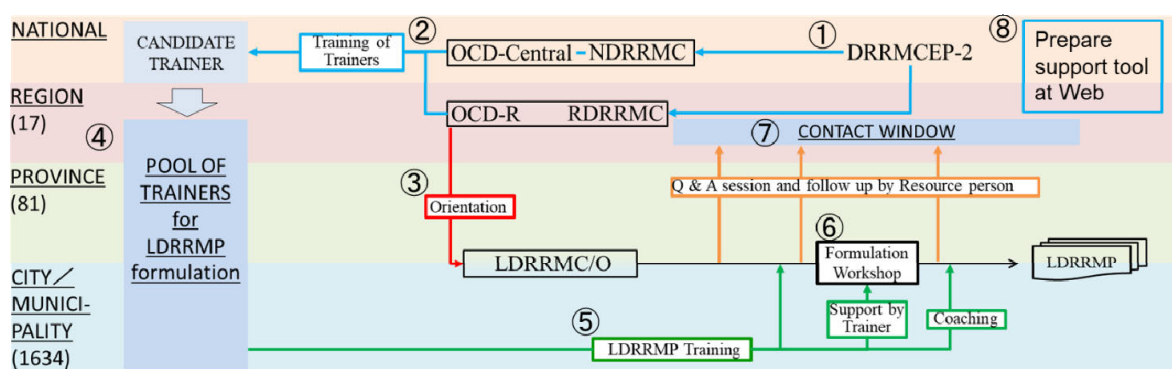
As a result of the discussions in WG4, the following training implementation strategies were organized.

<p><b>Goal:</b> <u>All LGUs to formulate a DRRMP using the new guidebook within 3 years</u></p> <p><b>Training implementation strategy:</b></p> <ul style="list-style-type: none"> <li>(i) LGUs that can develop through orientation and the use of guidebook should be given opportunity to develop by themselves.</li> <li>(ii) OCD-RO prioritizes each LGU on training their DRRM planning to understand OCD-CO's training prioritization policy.</li> <li>(iii) OCD-RO provides training to LGUs that have difficulty in formulating plans only by (i) above, and have high priority upon meeting (ii) within the OCD-RO's budget.</li> <li>(iv) If LGUs request a WS on LDRRMP formulation on their own budget, OCD-RO coordinates with trainers.</li> <li>(v) Prepare tools to support the preparation of (1) above, e.g., enhancement of, materials in the web (guidebook, FAQs, case studies), establishment of a contact point, etc.</li> <li>(vi) In order to secure trainers for (iii) and (iv), conduct a TOT and register the trainers in the trainers' pool.</li> <li>(vii) Trainers registered in (vi) will support LGUs as mentors and coaches.</li> </ul>
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**(1) LDRRMP training implementation structure**

Based on the abovementioned strategy, WG4 establishes the following structure for the implementation of LDRRMP trainings.

- (i) WG members of DRRMCEP2 participate in study sessions to become trainers.
- (ii) WG members of DRRMCEP2 become trainers for OCD-CO and NDRRMC, OCD-RO members in the Train of Trainers. (ToT1)
- (iii) OCD-CO leads the orientation. (Online)
- (iv) Members who have received the training in (ii) above become trainers and conduct the training for each regional trainers. (ToT2)
- (v) Secure a certain number of trainers for each region, and conduct training starting with LGUs that have been prioritized and have difficulty in formulating their own plans.
- (vi) Upon request from LGUs, trainers for LDRRMP formulation WS are dispatched from the trainer pool.
- (vii) If there are any questions, follow-up is provided through the OCD contact point.
- (viii) Support tools such as FAQs, case studies, and video training are be uploaded on the website.



Source: JICA Expert Team

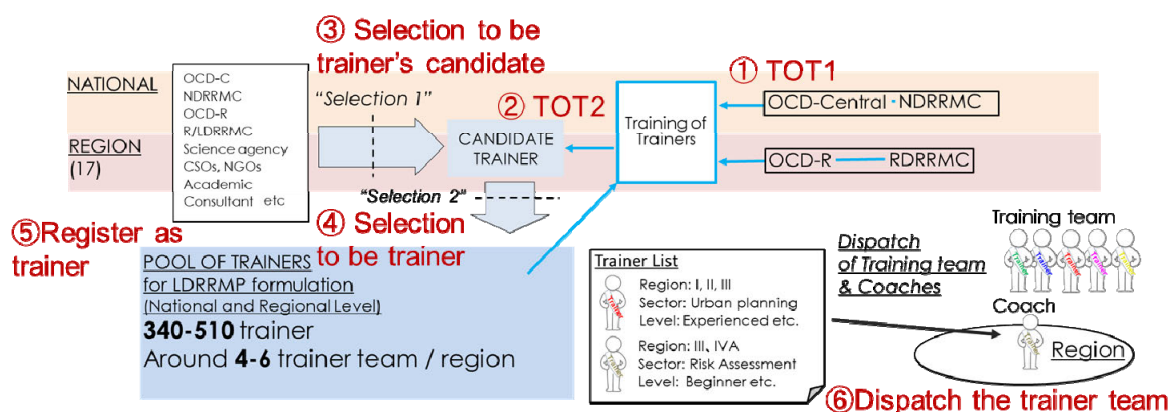
**Figure II.12 LDRRMP Training Implementation Structure**

**(2) TOT implementation system**

WG4 examined the system for training trainers to enable the above implementation structure.

TOT2 is open to anyone who meets the selection criteria, and it is envisioned that after taking the course, those who have satisfied the training time and subject requirements will be registered in the trainers' pool as LDRRMP trainers, mentors, and coaches. The details of the conditions will be discussed based on the implementation in Period II, but it is envisioned to proceed by targeting DRRMC members first. More specific mechanisms, such as prerequisites and procedures for implementing the training, will be carefully examined and discussed, with the aim of establishing a mechanism to ensure the quality of trainers dispatched by OCD and to prevent any deviation from the content of the explanations at training sessions.

- (i) WG members of DRRMCEP2 become trainers, and OCD-CO and NDRRMC and OCD-RO members attend the training of trainers (TOT1).
- (ii) The abovementioned trainers become trainers and conduct TOT2.
- (iii) The participants will be selected based on certain conditions.
- (iv) Those who fulfilled the conditions after the training are appointed as trainers.
- (v) Those who have been approved as trainers in the process (iv) above are registered in the trainers' pool.
- (vi) When conducting a training session, a team of trainers (about 5 persons) will be formed from among these trainers and dispatched from OCD-RO.



Source: JICA Expert Team

**Figure II.13 System for Trainers' Training and Trainers' Pool**

**[4-3]: Based on the guidebooks developed in 1-6, 2-5, and 3-3, develop draft training programs and modules for regions and LGUs**

The structure and content of the modules were organized based on the consolidation of the contents of the face-to-face LDRRMP training course in 2019 and the online LDRRMP training course in 2021, as well as the content of the Guidebook.

In WG4, the pilot activities conducted by WG1 and WG2 were observed in order to understand the contents of the Guidebook. Also participated in the briefing sessions conducted by WG1 and WG2 members for the pilot activities.

**Table II.25 Participation of Guidebook Briefing on WG1, 2 and 3**

Date	Activity
May 10, 2022	Briefing by WG 1 and WG2
June 09, 2022	Participation to WG3 presentation of the M&E
June 20, 2022	WG 2-3 presentation to WG4 of the draft outlines

Resource: JICA Expert Team

For the observation of the pilot activities, a group was assigned to each region, and arrangements were made so that at least one member of WG4 could participate. During the visit, an observation sheet was prepared to record the LGU's work, areas of difficulty, questions raised, etc., as well as

impressions, insights for training, and other ideas. After arranging the records, the results were shared at the WG4 meeting to summarize the challenges and points to be reinforced in the training program.

From these observations, it was clear that the online workshop was a challenge for the LDRRMP formulation workshop. In online training, it took a lot of time for participants to fill out the forms in the workshop, as they were participating in other tasks or meetings at the same time, or internet connection is not good. Therefore, it was suggested that it will be more efficient to have key members participating in person, even not all of them.

Based on the discussion of the above observation results, the following points were noted for future consideration. First, OCD staff needs to receive this training. Second, the training course needs to be reviewed, including the contents of the guidebook and the results of this observation and baseline survey. Third, the LGUs that will receive trainings need to be prioritized.

The OCD-CO, OCD-RO, and DRRMC, including NGA, CSO, SUC (State University and Colleges), etc., should be responsible for training implementation and obtaining instructors. In addition to the workshop format (Learning by Doing), it was also suggested that it is important to enhance coaching and mentoring as learning methods.

Regarding training and subsequent support, the importance of enhancing and utilizing the trainers' pool, and continuation and improvement of the instructor evaluation system were mentioned.

The results of these studies were reflected in the following training modules and programs, as well as in the study of the implementation system in the mentioned activity [4-2].

Based on the contents of the guidebook, the contents of the training, and the results of the observations, the WG4 members continued discussions on the modules and program contents.

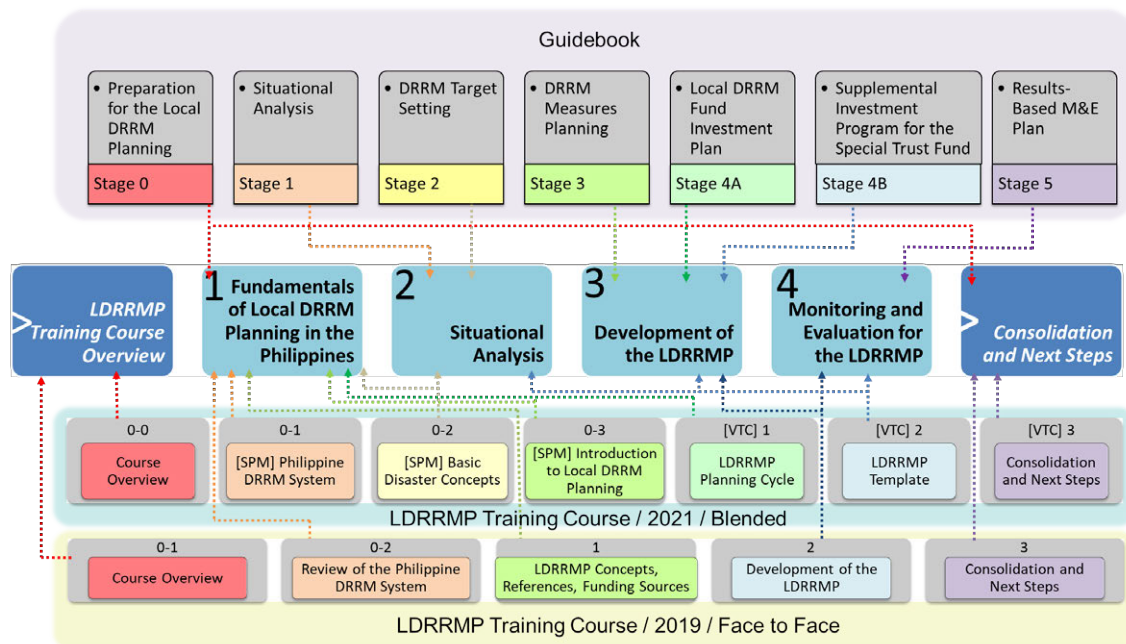
Module 1: Fundamentals of Local DRRM Planning in the Philippines

Module 2: Situational Analysis

Module 3: Development of the LDRRMP

Module 4: Monitoring and Evaluation for the LDRRMP

Each module is further organized in sessions, each of which is prepared with its own content. (Details are attached as training materials. The following are explanatory materials for organizing at the meeting.)



Source: WG4

**Figure II.14 Status of drafting training program/modules**

Based on the results of the online Round Table Discussion (RTD) with the OCD-RO conducted in Activity [4-4], a Technical Conference for NGA members were held on December 1, 2022.

**Table II.26 Outline of Technical Conference**

	Summary
<b>Date</b>	Dec. 1, 2022
<b>Participants</b>	13 NGAs, 5 OCD, 8 JICA Project Team Members Total: 26 people
<b>Purpose</b>	Describe proposed enhancements for: (A) the LDRRMP Course Designs and (B) LDRRMP training courses' roll-out plan Discuss and share recommendations for further enhancements
<b>Content</b>	Presentation of proposed enhancements to the current LDRRMP course packages (v0) [Orientation, Training, ToT] Presentation of the proposed LDRRMP training roll-out structure / implementation plan (v0) Plenary Discussion of Recommended Enhancements

Source: JICA Expert Team

**[4-4]: Conduct a workshop for all the OCD regional offices on the draft training programs and modules developed in 4-3**

A roundtable discussion (RTD) with the OCD-RO was conducted to share the review of activities [4-2] and [4-3], to receive the feedback from the OCD-RO, and to discuss improvements of the draft plan.



**Table II.27 Outline of Round Table Discussion with OCD-RO**

Date	Details of Discussions
Aug. 30, 2022	<ul style="list-style-type: none"> <li>• Plenary discussion on current challenges encountered on LDRRMP training and LDRRMP formulation.</li> <li>• DRRMCEP2 overview and presentation of draft concept on DRRMP training structure.</li> <li>• Presentation of the Appraisal Results for the LDRRMP Training Course</li> </ul>
Nov. 4, 2022	<ul style="list-style-type: none"> <li>• DRRM-CEP2 Project Overview.</li> <li>• CEP2-WG4 (Output 4: LDRRMP Training and Replication) proposed LDRRMP training roll-out plan and course designs; workshop to gather insights and recommendations.</li> </ul>

Resource: JICA Expert Team

Based on the results of the discussions on the training implementation structure, trainers' pool structure, course content, and roll-out plan discussed in the above RTD, the respective plans were updated, and the Technical Conference was held to discuss activities [4-3].

**[4-7]: Develop the training implementation plan (including schedule, budget, training of trainers, etc.) in order to replicate the project outcomes and conduct DRRM training for regions and LGUs in the Philippines.**

The training implementation plan was reviewed to develop the activity plan for Period 2 of the project. Since the activities for Period 2 of training implementation will be funded by OCD's budget, the number of trainings and instructors needed, and the number of trainings expected to be conducted to roll out the guidebook nationwide were estimated.

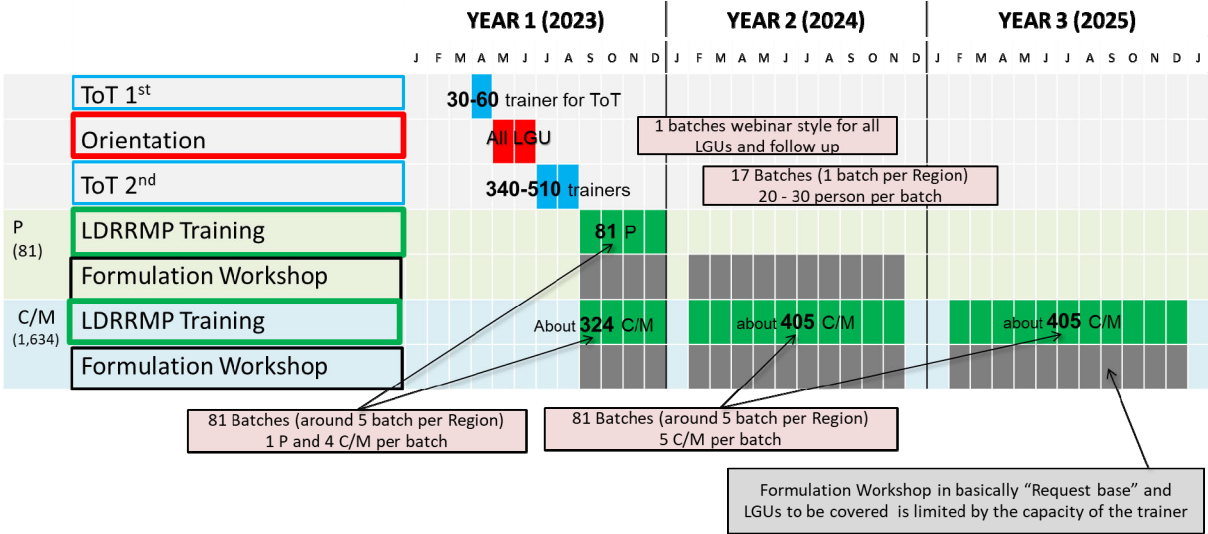
The DRRMP is to be revisited every three years. Hence, the number of training sessions required was calculated, assuming all LGUs will develop a DRRMP using the new guidebook in three years.

As an ideal plan, the following situation was envisioned.

<p><u>Year 2023</u></p> <ol style="list-style-type: none"> <li>1. WG members will hold study and practice sessions. (Before TOT1: The sessions are assumed to be implemented during Period 1.)</li> <li>2. Conduct TOT1 including members from NDRRMC and OCD-RO (17R) (30 people x 5 days x 2 sessions).</li> <li>3. Conduct orientation by OCD-CO.</li> <li>4. Conduct TOT2 for RDRRMC in each region, mainly for TOT1 participants of OCD-RO and NDRRMC.</li> <li>5. Conduct training for provinces by OCD-RO. (Depending on the situation, M/C will also be implemented.)</li> </ol> <p><u>Year 2024 through Year 2025</u></p> <p>Conduct trainings based on OCD-RO prioritization.</p>
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If all 81 provinces are to be trained in 2023, the number of instructors needed was calculated. Also, the number of trainings covered by the instructors was estimated, and 405 trainings per year can be

conducted nationwide in 2024 and 2025. In this case, more than 900 LGUs can be trained, meaning that approximately half of the LGUs will have trainings.



Source: JICA Expert Team

**Figure II.15 Image of Ideal Roll-Out Plan**

The next step was to make adjustment according to the budget available for this training during the year.

However, it was confirmed that the budget available to OCD-CO in 2023 for LDRRMP-related training is Php300,000, meaning that the envisioned TOT1 cannot be implemented. In addition, the necessity to review the deployment plan was confirmed, as four OCD-ROs were identified to have a training budget.

In this context, the challenge for 2023 is how to support LGUs which need to be helped with the use of the new guidebook. Therefore, the main future discussions in WG4 should include the following points: how to enhance the support to LGUs which will prepare LDRRMP on their own, in addition to orientation and guidebooks; and change of the draft roll-out plan which will be feasible for 2023.

**II.2 Achievements of the Project**

**II.2.1 Outputs and indicators**

Indicators and the achievement levels of each output are shown in the table below.

Although there are some delays in the pilot activities, all the planned outputs have been developed.

**Table II.28 Indicators and Achievement Levels of Each Output**

<b>Outputs</b>	<b>Objectively Verifiable Indicator</b>		<b>Achievement Levels</b>
1. Guidebooks for hazard information use and risk assessment are developed so that officers at the RDRRMC and LDRRMC can understand local disaster risks and realize disaster risk reduction through countermeasures.	1.1 User friendly guidebooks for regional/local risk hazard information use and risk assessment are developed.	Guidebooks, questionnaires for the users and their trainers, interviews with the users and their trainers	<u>High</u> Draft final guidebook has been developed.
	1.2 Regional/local disaster-related offices in the pilot areas realize disaster risk reduction through countermeasures.	Questionnaires for the regional/local disaster-related offices and their trainers, interviews with OCD and Japanese experts	<u>Fair</u> Pilot activities in one region (among 2) and 7 LGUs (among 11) have been conducted.
2. Guidebooks for the formulation of RDRRMPs/LDRRMPs based on disaster risk information are developed for the purpose of reducing disaster human casualties and economic losses.	2.1 User friendly guidebooks for the formulation and revision of RDRRMPs/LDRRMPs are developed.	Guidebooks, questionnaires for the users and their trainers, interviews with the users and their trainers	<u>High</u> Draft final guidebook has been developed.
3. OCD's information management (including global indicators such as Sendai Framework for Disaster Risk Reduction), and monitoring and evaluation system on the formulation, revision and implementation of RDRRMPs/LDRRMPs are established.	3.1 User friendly guidebooks and feasible structure for information management, monitoring and evaluation are developed	Guidebooks, questionnaires for the users and their trainers, interviews with the users and their trainers	<u>Fair</u> Draft guidebook has been developed.
	3.2 OCD's information management, monitoring and evaluation system and methods function in the pilot areas.	Questionnaires for the regional/local disaster-related officials and OCD, interview with Japanese experts	<u>Low</u> Pilot activities will be conducted during the 2 <sup>nd</sup> period of the project
4. Training system is established in order to replicate the project outcome and conduct training for regions and LGUs in the Philippines.	4.1 User friendly training programs and modules, and feasible structure for information management, monitoring and evaluation are developed.	Training programs and module development, questionnaires for the users and their trainers, interviews with the users and their trainers	<u>Fair</u> Draft training program, modules, implementation structures have been developed.
	4.2 OCD's training implementation plan is developed.	Training implementation plan, interviews with OCD and Japanese experts	<u>Fair</u> Draft nation-wide dissemination plan has been developed.

Source: JICA Expert Team

## II.2.2 Project Purpose and indicators

Indicators and their achievement levels for the project purposes are shown in the table below.

As for the nation-wide dissemination of R/LDRRMP, the support for the planning has been ready through the project activities during the 1st period of the project, but the support for the implementation and M&E will be pilot tested in the 2nd period of the project. This is as scheduled.

**Table II.29 Indicators and the Achievement Levels of Project Purposes**

Project Purpose	Objectively Verifiable Indicator		Achievement Level
Planning, implementation and monitoring system of RDRRMPs/LDRRMPs is developed for the purpose of reducing disaster human casualties and economic losses with the necessary technical support by National DRRM system centered upon NDRRMC.	OCD is ready for implementing its information management, monitoring and evaluation system nationwide.	Training implementation plan developed in 4-6, quality and number of trainers, questionnaires for OCD, interviews with Japanese experts	<u>Fair</u> Trainings for the planning is ready for nation-wide dissemination. Supports for implementation and M&E will be pilot tested in the 2 <sup>nd</sup> period of the project.
	2 RDRRMCs and LDRRMCs in the pilot areas can receive necessary technical support from National DRRM system for planning, implementation, and monitoring of RDRRMPs/LDRRMPs.	Questionnaires for OCD and related agencies in the pilot areas, interviews with OCD and related agencies in the pilot areas	<u>Fair</u> Provision of necessary technical support for planning is ready in the pilot areas. Support for implementation and M&E will be pilot tested in the 2 <sup>nd</sup> period of the project

Source: JICA Expert Team

### II.3 History of PDM Modification

Project Design Matrix (PDM) was modified based on the Inter-WG meeting held on 16 August 2021 and the revised R/D signed on 16 November 2021, as shown in the table below.

**Table II.30 Modified Contents of PDM**

Parent Document	Date of Signing	Revised Content
Revised R/D	16 November 2021	<u>Period of Project:</u> Before: From 2019 to 2024 (60 months) Amended: From October 2019 to May 2025 (68 months) <u>Pilot LGUs:</u> Before: Pilot LGUs in the pilot regions Amended: Davao City and Pilot LGUs in the pilot regions <u>Wordings:</u> Before: Guidelines Amended: Guidebooks

Source: JICA Expert Team

### II.4 Others

#### II.4.1 Results of Environmental and Social Considerations

Environmental and social considerations are not required for the implementation of this project. However, it is necessary to consider them since there will be many projects in the lists of LDRRMPs that will require environmental and social considerations in planning, designing, and implementation.

#### II.4.2 Results of Considerations on Gender/Peace Building/Poverty Reduction

The considerations for gender and disabilities have been required from the beginning of the project. Therefore, the points to consider to ensure their mainstreaming are explained in the guidebooks and they are implemented in the pilot activities.

### III. Results of Joint Review

#### III.1 Results of Review based on DAC Evaluation Criteria

Results of the evaluation at the end of the 1st period and the prospects at the end of the 2nd period of the project are described based on the results of initial evaluation conducted before the start of the project.

##### (1) Relevance

The relevance of the project is evaluated as high from the reasons shown below.

- This project is consistent with the development policy of the Philippines, since DRRM is described as one of the most important cross-cutting sectors in “AmBisyon Natin 2040” and “Mid-Term Philippine Development Plan” (MTPDP2023-2028). Furthermore, this project will contribute to the enhancement of DRRM capacity in the Philippines, since OCD is designated as the national central agency for DRRM in RA10121.
- Needs requiring support from this project is high, since there is a lot of challenges for effective risk reduction in the existing RDRRMP/LDRRMP, and the development of national and local strategies is required in the Global Target (e) of the Sendai Framework for DRR.
- This project is consistent with the cooperation policy of Japan for the Philippines, since the DRRM is situated in one of the strategic fields of the policy. DRRM is also consistent with the policy in Japan called Sendai Initiatives for DRRM Cooperation.
- Past experiences and knowledge of DRRM in Japan will be well utilized in the Philippines.

##### (2) Effectiveness

The effectiveness of this project is expected to be high from the reasons shown below.

- There are many cases that the project purpose is the establishment of the model case in the pilot area, and the overall goal to replicate the model case in the whole country is not achieved. However, this project seeks for the realization of the replication. The user-friendly guidebooks and the implementation structure will be established in the first half of the project, and their feasibility will be pilot tested and the necessary preparation for the replication will be conducted in the latter half of the project by utilizing the 5-year project period. The project targets are logical, since they are defined within the actual functioning of the models and the completion of the preparation for the replication activities.
- In this project, the necessary guidebooks have been developed and the implementation structures have been proposed by the end of the 1st period of the project. It is expected to achieve the project purposes through the pilot testing in the 2nd period.

### **(3) Efficiency**

The efficiency of the project is evaluated as high for the activities during the 1st period of the project from the reasons shown below.

- Although the project had to be extended for 8 months due to the several reasons, such as COVID-19 pandemic, national election and disasters, the extension period was minimized by utilizing the on-line activities as much as possible.
- Even though the project cost has increased, the additional cost was only for the necessary actions to adapt to COVID-19 situation, and for the activities in Davao City that required additional pilot testing.
- The project targets at the end of the 1st period of the project have been achieved by the above inputs and activities.

### **(4) Impact**

The impact of the project will be evaluated at the end of the 2nd period of the project. The recommendations for the achievement of the project purposes will be described in this report.

### **(5) Sustainability**

The sustainability of the project is expected as high from the reasons shown below.

- The budget for the training of LGUs on LDRRMP is allocated to OCD annually. It is expected that OCD will continue to secure the necessary budget by the development of realistic training implementation plan. The activities for Output 4 include the development of the training implementation plan (schedule, budget, training program, etc.) to disseminate the outputs of the project and to implement the training program for the regions and LGUs.
- The guidebooks and the implementation structures for the training and M&E have been developed through the pilot activities by considering their sustainability, so that OCD will be able to disseminate the outputs of the projects and the LGUs will be able to implement the activities along with the guidebooks.
- The enhancement of sustainability will be expected through the support for the nationwide dissemination in the 2nd period of the project.

## **III.2 Key Factors Affecting Implementation and Outcomes**

### **(1) Overall**

#### **A) Natural Disasters and COVID-19 Pandemic**

The project period had to be extended due to occurrence of natural disasters such as volcanic eruptions, typhoons, and floods, and the spread of COVID-19. Then the national election was conducted that led to the replacement of officers with key positions at OCD; also, the new set of

officials in pilot LGUs assumed their respective positions and changes in the local administrative setup were inevitable.

Although these risks have been assumed to some extent from the beginning, it was very hard to manage the project especially under the spread of COVID-19. However, the JICA Project Team somehow managed and the project progressed at a slow pace using online means, because there had been already a good relationship with OCD, there was good internet connection in the Philippines, and the team of experts could communicate with OCD without translators, etc.

#### **B) Replacement of C/P Members**

As cited previously, top management has been changed in OCD and in the pilot LGUs due to the outcome of the national election. Although the replacement of C/P members had been assumed to some extent, the number and extent of replacement were beyond the JICA Expert Team's expectation.

Due to difficulty to communicate with C/Ps under COVID-19 and the repeated replacement of C/Ps, the Japanese Expert Team had to proceed with the project activities with limited support from them. However, the team tried to involve them in project activities and invited the major C/Ps to the training program in Japan in order to enhance the ownership of the project, which is very important since the project activities under the second period have to be initiated by the Philippine side.

#### **C) Existing efforts by the Philippine side**

In the Philippines, there are already LDRRMPs and related frameworks, the adoption of risk assessment tools such as CDRA and GeoRiskPH, and higher-level plans of LGUs such as LDPs and CLUPs, etc. Since there is such a lot of existing related efforts in the Philippines, it has been necessary to coordinate with concerned offices for the effective implementation of the project. Because the responsible agencies for each effort have their own objectives, future scenarios, and budget limitations, etc., it has been necessary to tap such efforts for the project activities without changing the objectives and schedules of the project.

The following points are the items that had a negative impact on certain outputs of the Project. There were no political negative impacts.

### **(2) Output 1**

#### **A) Dissemination of DLE as a new process and terminology**

Since DLE is a new process and terminology in LDRRMP development, it was necessary to communicate repeatedly its difference from general disaster risk assessment and its effectiveness with C/Ps. It was necessary to explain in detail that DLE is a quantitative approach and that it is a part of the current status analysis for LDRRMP formulation. It is also a process to identify areas with high priority for adoption of countermeasures due to the large amount of damage expected from each disaster type. In order for the LGUs to fully understand and implement the seven steps of DLE, it was necessary to support their activities through follow up by consultations in several times.

## **B) Pilot activities to be added to the LGU's existing work**

Along with its routine work, the DRRM Office of the LGU is required by various levels of government (national, region, and local) to report the results and implement a wide variety of DRRM-related projects and activities. In this context, the pilot activities of this project occur as "additional work" for the DRRMO and other stakeholders in the LGU. Based on actual experience with pilot LGUs, there may be delays in the implementation of DLE activities as staff and officers' time and attention are diverted to other tasks.

### **(3) Output 2**

#### **A) Frequent changes in OCD Working Group members**

One of major factors affecting the project progress was the frequent change or period without any officer from OCD assigned as working group leader. This situation caused delay in term of coordination with related agencies to consolidate the outputs, and also in term of knowledge transfer to the newly appointed officer.

To lower the impact of said situation and ensure that a minimal number of OCD officers are aware about the project activities, joint WG meetings and brainstorming between WG2 and WG3 were conducted.

The advantages of these joint activities are as follows: 1) They raise the common understanding on how the LDRRMP are formulated (WG2) and how they should be monitored and reviewed (WG3), and 2) They ensure that at least a minimal number of OCD officers are regularly attending these meetings.

#### **B) Occurrence of COVID-19 and natural disasters**

As in many other projects, external factors such as COVID-19, Taal Volcano eruption, Typhoon Odette, and national election have caused delays in many aspects. To try lower the impacts of these factors, WG2 members considered alternatives which will be explained in session "IV.1 Prospects to Achieve Overall Goal".

### **(4) Output 3**

Same as Output 2.

### **(5) Output 4**

#### **A) Establishing Ownership**

The members of WG4 are not done with work once the plan is developed, because they must implement the training. Especially in the second half of Period 2, they should conduct the training within their own budget. Therefore, it is necessary to establish the training as their own initiative by then. For this reason, it was decided to hold regular meetings.

Initially, the main agenda was information sharing of survey results and other information and input from the JICA Expert Team. In order to encourage the participation, JICA expert team



introduced several methods to establish frequent communication, such as sharing information through group chat of SNS tools and having a face-to-face communication frequently. For example, to ensure the attendance of the WG4 member's to the WG4 meeting, JICA expert team visited the WG4 member's in person on the day before and just before the meeting to remind them. For the members who could not attend the meeting due to other meeting, etc., the JICA expert team also followed up the WG4 member's by revisiting them and reporting the outcome of the meeting briefly in person to contact them as much as possible. The number of WG meetings increased from the second half of 2021, when observations of the pilot activities began. Regular meetings have been conducted once or twice a week since May 2022. For the event such like Observation, Technical Conference and RTD etc., the WG4 member assigned the roles to the members. And then the members whom assigned had a meeting previously and practiced the presentation etc. Thus by holding frequent regular meetings, it is possible to have detailed discussions little by little, leading to a consensus on how to proceed. In addition, gradually giving the roles, it is increasing the awareness of their roles to manage the activity.

#### **B) Responding to working group member turnovers**

The formal membership of WG4 has a lot of turnover and has been unstable due to transfers between departments and organizational structures. Initially, it was assumed that once a member was replaced, it would proceed with that member, but the original member might be reinstated, and the member who moved on might become another WG member. Since after the start of the 2<sup>nd</sup> period, especially as activity of OCD, WG4 and WG2 might proceed the roll-out of the new guidebook and training with well cooperation, when a leader changes, a handover meeting is held where the former leader explains the activities to the new leader. In addition, WG4 has a system that allows former members of WG4 to still participate at any time, so that they can share their knowledge even if they are transferred to another department. It means the members of the mailing list will be added as a new member but will not be replace as for being able to grasp the situation continuously.

### **III.3 Evaluation of the results of Project Risk Management**

As for the abovementioned key factors in project management, such as natural disasters, replacement of C/P members, and coordination with existing efforts, both Philippine side and Japanese side had taken their efforts not to worsen the situation by holding timely and truthful discussions.

### **III.4 Lessons Learned**

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

##### **A) Establishment of LGU support system by NGAs that develop and operate hazard information and risk assessment tools**

When conducting DLE, many LGUs did not know what kind of hazard information were maintained by NGAs or what kind of risk assessment tools were available. Even if they knew, they

did not have the capability to obtain such information or how to use such tools. NGAs, in cooperation with OCD, will promote the use of various hazard information and risk assessment tools that are effective for LDRRMP development and need to establish a system to support LGUs. In addition, LGUs have to establish close relationship with the central and regional offices of NGAs to collect information and data that are effective for understanding the disaster characteristics of their own areas and for implementing effective DRRM measures. In the 2<sup>nd</sup> period of the project, related agencies such as DOST/PHIVOLCS will be involved more in the project activities for promoting the use of their tools. For LGUs, present challenges on the hazard and risk assessment will be explained and understanding the necessity of information and data collection will be promoted.

**B) Introduction of a DLE approach that takes into account differences in the capacity levels of LGUs**

Difference in the capacity levels of LGUs is one of the key factors affecting the use of the DLE Technical Guidebook. Most LGUs have difficulty in conducting data analysis using GIS, as well as implementing CDRA, which is required by DILG and DHSUD when developing CDPs and CLUPs. Similarly, it is not easy for LGUs with few technical personnel to implement DLE, which requires a high degree of technical expertise, into the LDRRMP formulation process. Therefore, it is necessary to devise an approach that allows LGUs to adopt the DLE according to their level of expertise. The DLE Technical Guidebook has taken this into consideration and introduced five different DLE approaches. By these approaches, it will be possible for any LGUs to develop the LDRRMPs to reduce the disaster risks. However, the accuracy of DLE will be low and the contents of risks to be shown will be limited by the simple approach. In the 2<sup>nd</sup> period of the project, awareness of LGUs to collect necessary data and information will be enhanced by explaining the advantages to select more advanced approaches

**C) Enhancement of GeoRiskPH to support LGU planning**

The analysis using GeoRiskPH calculates the estimated affected population and the estimated number of affected facilities for each disaster type based on hazard maps and population and facility data maintained by the NGAs. This is the minimum required outputs of DLE using the current tool of GeoRiskPH. However, the LDRRMP formulation involves various sectors such as urban development, agricultural development, forest resources, infrastructure and lifelines, etc., and each of them need to utilize the result of DLE. For example, the ability of GeoRiskPH to estimate damaged area in built-up area, agricultural land, forest area, and others based on land cover information provided by NAMRIA will enable it to respond to such sectoral needs. Through the activities of WG1, this has been proposed to DOST/PHIVOLCS.

**(2) Output 2**

**A) Need to promote the leadership of DRRM-related agencies**

At the national level, the NDRRMP was updated and OCD as the NDRRMC Secretariat showed a strong leadership to collect inputs from each NDRRMC member and consolidated the plan, even

though the activities were conducted remotely due to the pandemic.

At the regional level, there is no clear rule explaining the purpose and contents of the RDRRMP. Consequently, in some regions, RDRRMP is not linked with the Regional Development Plan. This situation makes the RDRRMP an individual plan without any clear targets and, consequently, the priority addressed to implement this plan is lower than other plans.

At the local level, the LDRRMP focuses more on how to use the 5% LDRRMF. Therefore, DRRM measures are more focused on the traditional non-structural measures, and DRRM infrastructures funded by the 20% development fund are limited.

WG2 is proposing the creation of DRRM Planning Team at the regional and local levels to involve all stakeholders and consider comprehensively what are needed to reduce disaster risk in the locality. The well-functioning of the Planning Team is reliable on the strong leadership of the Regional Office of OCD and LDRRMO at the local level.

The capacity of LDRRMO can be enhanced if the LCE understands the importance of DRRM. In the 2<sup>nd</sup> period of the project, the opportunities to explain the importance of DRRM to LCEs will be explored.

**B) Need to shift from the approach “listing all needed DRRM measures” to “prioritizing effective DRRM measures”**

During Stage 1 of the pilot activities, LGUs were successful to identify the localities and sectors affected by natural disasters and to set their short-, medium- and long-term DRRM targets to lower disaster impacts and ensure sustainable development.

By considering DRRM targets, LGUs were able to consider more concretely the DRRM measures, including structural measures, needed to achieve these targets. However, there is still room for improvement, especially in terms of prioritization of effective measures which should be implemented. , A long list of measures is crucial but also ambitious. Therefore, to ensure the implementation of effective measures, further considerations have been done and will be tried during the Stage 2 of the pilot activities (will be explained in Section “IV.1 Prospects to achieve Overall Goal”).

**(3) Output 3**

**A) Need to consider the review timeframe**

NDRRMC issued Memorandum Circular No. 147, s. 2017 and No. 13 in 2018 (changes in the organization of the Local DRRM Plan Review Team composition) implemented through the Office of Civil Defense Regional Offices. The issuance of Memorandum Circulars aimed: 1) To prescribe the guidebooks in the conduct of review and evaluation of the LDRRMP pursuant to Section 9 (e) of RA 10121 and Paragraph 2.2.11 of the Local Budget Memorandum No. 75 dated June 1, 2017; 2) To ensure that the Sangguniang Panlalawigan / Panlungsod / Bayan / Barangay approved Annual Investment Plan (AIP) of the concerned LGU is consistent to the DRRM-CCA programs, activities, and projects (PAPs) in their respective LDRRMP; 3) To make certain that the PAPs of the

LDRRMP are consistent to those of the higher LDRRMP; and 4) To guarantee judicious utilization of the Local DRRM Fund.

OCD regional offices with their component provinces and related agencies are conducting this review annually. However, there are more than 1,800 provinces, cities, and municipalities in the Philippines and it is challenging to review the contents of all plans every year.

Therefore, WG3 will consider the strategy, including the timeframe, and items to be reviewed during the 2<sup>nd</sup> period of the project.

(Note: The guidebook and checklist, including the full set of items to be reviewed, were already drafted during the 1<sup>st</sup> period. However, since the risk profiles and development strategies of LGUs differ, it may not be practical to review all LDRRMPs by using this full set.)

#### **B) Need to consider feasible M&E**

The target of WG3 is to implement a results-based M&E in line with the on-going system to monitor the NDRRMP.

However, in reality, LGUs have limited experience to monitor their plans. Therefore, during the 2<sup>nd</sup> period of the project, WG3 will consider step-up methodology to finally enable the implementation of a results-based M&E.

### **(4) Output 4**

#### **A) Be prepared for changes in WG members**

It is common for the C/P to leave the WG for organizational or personal reasons. Therefore, it is necessary to proceed the project with this situation in mind. In the case of OCD WG members, even if they leave, they usually return. It is effective to share information of detailed situations so that members can understand what is happening without having to attend meetings.

In addition, the handover meeting is an important practice of the C/P, especially when a key official is replaced, because taking over the responsibility of the predecessor will lead to the continuation of activities as an organization.

#### **B) Sharing the discussion contents**

The results of the discussion of WG4 meeting are shared by updating the presentation slides every time. However, sometimes it is difficult to understand the contents by only checking the PPT, in case the main members are absent at the meeting. Some measures are needed, such as the holding of individual follow-up meeting. This approach will be continued in the 2<sup>nd</sup> period of the project.

## **IV. For the Achievement of Project Purposes and Overall Goal**

### **IV.1 Activities for the Achievement of Project Purposes and Overall Goal**

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

The DLE Technical Guidebook was developed in cooperation with several LGUs with different administrative capacities, economic situations, and disaster characteristics, thus ensuring its generalizability in the Philippines.

In order for the DLE approach to be adopted in the development of the LDRRMP, it will be effective if OCD, in cooperation with DOST/PHIVOLCS, distribute the results of the GeoRiskPH and REDAS Shake analyses to all LGUs in parallel with the implementation of training based on the DLE Technical Guidebook. Many LGUs may not be able to implement DLE themselves due to lack of capacity or budget. Distributing said results will save the LGUs' time and effort, as well as help them learn and disseminate the DLE process nationwide.

#### **(2) Output 2**

##### **A) Adoption of new practices**

As explained in the “III.2 Key Factors Affecting Implementation and Outcomes”, external factors such as COVID-19, natural disasters, and political changes occur just after the start of the project. Unfortunately, such factors may happen again in the future, and since DRRM related agencies including OCD and LDRRMOs are the front liners, the activities may be disrupted during such situations.

To lower the impacts of such factors, WG2 adopted new practices to enable the continuity of the activities. These are the following:

- a. Change of setup: Originally, the pilot activities were planned to be conducted face-to-face. Since international and domestic travels were restricted, WG2 has moved to a hybrid setup composed of online lecture session and homework to be completed by each planning team member and face-to-face workshop to consolidate the outputs.
- b. Creation of online platform (Facebook, Viber groups) to ensure the continuous exchange of messages and ideas within the planning team members.

The experience in Stage 1 pilot activity demonstrated that some activities can be conducted remotely and that some should be conducted face-to-face. In the next period, WG2 will continue to adopt hybrid activities.

##### **B) Proposal for effective DRRM measures**

Prior to the conduct of Stage 2 pilot activity, Japanese experts of WG2 visited the Municipalities of Bauan and Mabitac in April 2022; while the Municipality of Batuan, City of Dumaguete, and Province of Bohol were visited in July 2022 for the interviews. They also visited DPWH

headquarters, DPWH Region IV-A office, DPWH Laguna 1st District Engineering Office and Batangas 3rd District Engineering Office in April, and Bohol 3rd District Engineering Office in July 2022. Basic information on the structural and nonstructural measures, past disasters, disaster-prone areas, DRRM related studies, and on-going and planned disaster mitigation projects were gathered to consider effective DRRM measures as inputs to the updated LDRRMP.

### **(3) Output 3**

Please refer to “III.4 Lessons Learned”.

### **(4) Output 4**

For the roll-out plan to be implemented as envisaged in Output 4, firstly it is important that the OCD-CO and OCD-RO have the budget to implement the ToT on a continuous basis. In addition, in order to support LGUs by OCD-RO based on their priorities, it is necessary to secure budgetary resources by OCD.

Furthermore, in order to ensure continuous availability of a number of quality lecturers, it is important to ensure that a system of dispatching them to conduct LDRRM trainings and WS via the OCD contact window is in place. For that, it is also required to establish a mechanism to ensure that the trainers in the trainers’ pool maintain their qualifications, and to create LGUs’ awareness of their availability.

As for the budget for the roll-out activities, not a temporal but a continuous budgeting is required, because it is necessary to improve the contents of LDRRMPs continuously in the future. In the 2<sup>nd</sup> period of the project, the discussion on the practical roll-out planning and their budgeting will be made from the point of the short-term target to roll-out and the long-term target to improve the contents continuously.

## **IV.2 Recommendations for the Philippines side**

- **Restructuring of the Implementation Structure and Enhancement of OCD’s Ownership of the Project:**

The implementation structure of OCD is not stable due to the repeated replacement of C/P members and the changes of its top management. Since the ownership by OCD is required for the implementation of the 2nd period of the project, it is recommended that OCD reorganize the implementation structure and prepare for the 2nd period of the project with a sense of ownership for it.

- **Approval of Project Outputs and Nationwide Dissemination Through a Memorandum to Be Issued by NDRRMC:**

The project outputs such as relevant guidebooks, etc. have to be approved by NDRRMC, since the activities of the 2nd period of the project will be conducted by utilizing these project outputs. The official memorandum to instruct LGUs to develop and monitor LDRRMP by using the new guidebooks has to be issued by NDRRMC, since the LGUs are the ones who have responsibility

to prepare their LDRRMPs. It is highly expected to take these actions during the 2nd period of the project for the achievement of the project purposes and the overall goals.

- **Securing the budget for the Nationwide Dissemination of LDRRMP**

Although the activities for Output4 proposed the ideal nationwide dissemination plan, the sufficient budget for its implementation has not been secured yet. It is highly expected to secure the budget to strengthen the support for LGUs as much as possible, since not a small number of LGUs will update their LDRRMPs based on the results of the recent national election. On the other hand, the proposed replication activities will not be disseminated easily and it is expected to secure the budget on a yearly bases.

# **ANNEX1 Results of the Project**

- 1 List of Dispatched Experts
- 2 List of Counterparts Members
- 3 List of Training Members



## List of Dispatched Experts

### Japanese Experts Team

	Assignment	Name
1	Team Leader / DRRM Governance	Yoshihiko Uchikura
2	Deputy Team Leader / DRRM Planning 1	Toshiaki Kudo
3	DRRM Planning 2	Naoko Kitazawa
4	Disaster Risk Assessment	Akihiro Furuta
5	Hazard Information 1 (Flood & Sediment Disaster)	Yusuke Yamazaki
6	Hazard Information 2 (Earthquake & Volcano)	Kenpei Kojika
7	Structural Countermeasure	Satoshi Takata
8	Non-Structural Countermeasure	Daisuke Fujita
9	Development Plan & Land-Use Plan	Yoshizumi Gonai
10	DRRM Information	Takuya Ito
11	DRRM Training Program	Motoyo Araki
12	DRRM Technology	Shinji Iida
13	Project Coordination / Capacity Development/ DRRM Planning 3	Yuta Kurihara
14	Disaster Risk Assessment 2	Keisuke Imada
15	Infrastructure & Lifeline	Ai Shigematsu

### Local Staff

	Assignment	Name
1	DRRM Planning Facilitator	Armen-Ria Hembrador Toquero
2	Secretary	Armi Tingzon Peregrino
3	Senior DRRM Specialist	Terteen Gail Bilgera Omana
4	Senior DRRM Specialist (Risk Assessment)	Geraldine Morata Santos
5	Senior DRRM Specialist2	Diana Ann Recinto-Badillo
6	Training Specialist	Christine May Flores Derafera

## List of Counterparts Members

Working Group (WG) / Output	Leader	Members
<b>WG1: Disaster Risk Understanding and Information</b>	Ms. Cheryl Loise Leal, PDPS	<ul style="list-style-type: none"> <li>• Mr. Ryan Chrstpher Viado, RRMS</li> <li>• Mr. Relan Jay Asuncion, OS</li> <li>• Ms. Deniece Krizia Manding, OS</li> <li>• Ms. Mary Grace Somido, OS</li> <li>• Mr. Kenneth Menor, PDPS</li> <li>• Mr. Marvin Kristian Arias, PDPS</li> <li>• Mr. Raffy Lucas, CBTS</li> </ul>
<b>WG2: Local DRRM Plan</b>	Ms. Ma. Christina Lee, PDPS	<ul style="list-style-type: none"> <li>• Mr. Manuel Nivera Jr., CBTS</li> <li>• Ms. Cheryl Loise Leal, PDPS</li> <li>• Mr. Benito Salcador, Jr., RRMS</li> <li>• Mr. Ryan Christopher Viado, RRMS</li> <li>• Ms. Mary Ann Sarah Ulat, OS</li> <li>• Mr. Renato Libunao Jr., PDPS</li> <li>• Mr. Paolo Jonas Alan, OS</li> </ul>
<b>WG3: Monitoring and Evaluation</b>	Ms. Raquel De Leon, PDPS	<ul style="list-style-type: none"> <li>• Ms. Leonila Dissanayaka, RRMS</li> <li>• Mr. Marivin Kristian Arias, PDPS</li> <li>• Ms. Hannah Grace Escamilla, CBTS</li> <li>• Ms. Gia Mae Resaba, PDPS</li> <li>• Ms. Grace Joice Ganas, CBTS</li> <li>• Ms. Tanya Celina Cauntay, PDPS</li> </ul>
<b>WG4: Training and Replication</b>	Ms. Lorelei Bendijo, CBTS	<ul style="list-style-type: none"> <li>• Mr. Relan Jay Asuncion, OS</li> <li>• Ms. Aimee Menguilla, OS</li> <li>• Mr. Alvin Geronimo, RRMS</li> <li>• Ms. Shereen Hombrebueno, CBTS</li> <li>• Mr. Julius Hontiveros, RRMS</li> <li>• Ms. Rose Ann Tierra, CBTS</li> <li>• Ms. Aurora Dela Rosa, CBTS</li> <li>• Ms. Monique Raizza Jacob, PDPS</li> <li>• Ms. Hyacinth Jeaned Barros, PDPS</li> <li>• Mr. Mark Anthony Rana, PDPS</li> </ul>

## List of Training Members

The list of trainers during the Japan training, January 11-26, 2023.

No	Name	Organization	Division	Position
1	Ms.TACANA Katherine	LGU - Calamba	Local Disaster Risk Reduction and Management Division	Local Disaster Risk Reduction and Management Officer II
2	Ms.BULILAN Tiara Lourdes	Provincial Government of Bohol	Provincial Disaster Risk Reduction and Management Office / Admin Support Division	Senior Administrative Assistant 1
3	Ms.CABANTOG Maira Leonora	Laguna PDRRMO	Research and Planning	Research and Planning Division Head
4	Ms.BULILAN Juliet	Local Government Unit of Tubigon	Municipal Disaster Risk Reduction and Management Office	MDRRM Assistant
5	Mr.ARIAS Marvin Kristian	Office of Civil Defense	Disaster Risk Governance Division - Policy Development and Planning Service	Planning Officer III
6	Mr.HONTIVEROS Julius	Office of Civil Defense	Rehabilitation and Recovery Management Service - DRRM Fund Management Division	Civil Defense Officer III
7	Mr.SALVADOR Benito Jr.	Office of Civil Defense	Rehabilitation and Recovery Management Service / DRRM Fund Management Division	Civil Defense Officer IV
8	Ms.LEE Ma. Cristina	Office of Civil Defense	National Disaster Risk Reduction Management Training and Research Institute (NDRRMTRI)	Training Specialist IV
9	Ms.DE LEON Raquel	Office of Civil Defense	Policy Development and Planning Service	Civil Defense Officer III
10	Ms.PADAGDAG Janice	Office of Civil Defense - Regional Office VII	Policy Development and Planning Section (PDPS)	Civil Defense Officer II
11	Ms.CAUNTAY Tanya Celina	Office of Civil Defense	Disaster Risk Governance Division, Policy Development and Planning Service	Civil Defense Officer I

No	Name	Organization	Division	Position
12	Mr.MENOR Kenneth	Office of Civil Defense	Policy Development and Planning Service (PDPS) - Disaster Risk Governance Division (DRGD)	Civil Defense Officer III
13	Ms.OSORIO Cheryl Bernadita	Office of Civil Defense Region XI	Disaster Risk Reduction and Management Division	Civil Defense Officer III
14	Mr.REYES Kelvin John	Office of Civil Defense CALABARZON	Plans and Programs	Chief
15	Mr.LEONCIO Domingo III	Office of Civil Defense	Interim Disaster Preparedness Service - Policies, Partnership and Advocacy Section	Training Assistant

## **ANNEX 2: List of Products Produced by the Project**

- 1 LDRRMP Damage & Loss Evaluation Guidebook
- 2 LDRRMP Formulation Guidebook
- 3 LDRRMP Review Guidebook
- 4 LDRRMP Monitoring & Evaluation Guidebook
- 5 Nationwide Dissemination Plan
- 6 Training Program / Modules
- 7 Project Brief Note

# **ANNEX3 Project Design Matrix**

- 1 PDM Version1
- 2 PDM Version2

## Project Design Matrix (1/2)

Project Title: Disaster Risk Reduction and Management Capacity Enhancement Project Phase II

Implementing Agency: Office of Civil Defense

Target Group: OCD (Headquarters and Regions) and local disaster-related officials centered upon RDRRMC and LDRRMC in the pilot areas

Period of Project: From 2019 to 2024

Project Site: OCD Headquarters. Pilot regions: Region IV-A and Region VII. Pilot LGUs: Pilot LGUs in the pilot regions will be selected in 1-4.

Version 1

Dated December 10, 2020

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
<p><b>Overall Goal</b> The project outcome is replicated in the Philippines for the purpose of reducing disaster human casualties and economic losses under NDRRMC's initiative.</p>	<p>1 Based on the indicators for Output 1 and Output 2, regions and LGUs formulate, implement, and monitor RDRRMPs/LDRRMPs.</p> <p>2 Based on the indicators for Output 3, OCD implements information management, monitoring and evaluation of RDRRMPs/LDRRMPs.</p> <p>3 Based on the indicators for Output 4, training for regions and LGUs is implemented.</p>	<p>1 OCD Annual Report, RDRRMPs/LDRRMPs, Questionnaires for OCD and RDRRMCs, Interviews with OCD and RDRRMCs</p> <p>2 OCD Annual Report, stored information, stored monitoring and evaluation documents, Questionnaires for OCD, related agencies and RDRRMCs, Interviews with OCD, related agencies and RDRRMCs</p> <p>3 OCD Annual Report, Questionnaires for OCD and RDRRMCs, Interviews with OCD and RDRRMCs</p>	<p>National DRRM policies do not change.</p> <p>The project outcome (plans, guidelines, and systems developed by the project) is endorsed/approved by NDRRMC.</p>		
<p><b>Project Purpose</b> Planning, implementation and monitoring system of RDRRMPs/LDRRMPs is developed for the purpose of reducing disaster human casualties and economic losses with the necessary technical support by National DRRM system centered upon NDRRMC.</p>	<p>1 OCD is ready for implementing its information management, monitoring and evaluation system nationwide.</p> <p>2 RDRRMCs and LDRRMCs in the pilot areas can receive necessary technical support from National DRRM system for planning, implementation and monitoring of RDRRMPs/LDRRMPs.</p>	<p>1 Training implementation plan developed in 4-6, quality and number of trainers, questionnaires for OCD, interviews with Japanese experts</p> <p>2 Questionnaires for OCD and related agencies in the pilot areas, interviews with OCD and related agencies in the pilot areas</p>	<p>National DRRM policies do not change.</p> <p>National DRRM mechanism does not change drastically. Even if organizational changes affect OCD, any new organization that takes over the current OCD's roles and responsibilities agrees to continue the project.</p>		
<p><b>Outputs</b> Output 1 : Guidelines for hazard information use and risk assessment are developed so that disaster-related officials centered upon RDRRMC and LDRRMC can understand local disaster risks and realize disaster risk reduction through countermeasures.</p> <p>Output 2 : Guidelines for the formulation of RDRRMPs/LDRRMPs based on disaster risk information are developed for the purpose of reducing disaster human casualties and economic losses.</p> <p>Output 3 : OCD's information management (including global indicators such as Sendai Framework for Disaster Risk Reduction), monitoring and evaluation system on the formulation, revision and implementation of RDRRMPs/LDRRMPs is established.</p> <p>Output 4 : Training system is established in order to replicate the project outcome and conduct training for regions and LGUs in the Philippines.</p>	<p>1-1 User friendly guidelines for regional/local risk hazard information use and risk assessment are developed.</p> <p>1-2 Regional/local disaster-related officials in the pilot areas realize disaster risk reduction through countermeasures.</p> <p>2-1 User friendly guidelines for the formulation and revision of RDRRMPs/LDRRMPs are developed.</p> <p>3-1 User friendly guidelines and feasible structure for information management, monitoring and evaluation are developed.</p> <p>3-2 OCD's information management, monitoring and evaluation system and methods function in the pilot areas.</p> <p>4-1 User friendly training programs and modules, and feasible structure for information management, monitoring and evaluation are developed.</p> <p>4-2 OCD's training implementation plan is developed.</p>	<p>1-1 Guidelines, questionnaires for the users and their trainers, interviews with the users and their trainers</p> <p>1-2 Questionnaires for the regional/local disaster-related officials and their trainers, interviews with OCD and Japanese experts</p> <p>2-1 Guidelines, questionnaires for the users and their trainers, interviews with the users and their trainers</p> <p>3-1 Guidelines, questionnaires for the users and their trainers, interviews with the users and their trainers</p> <p>3-2 Questionnaires for the regional/local disaster-related officials and OCD, interview with Japanese experts</p> <p>4-1 Training programs and module development, questionnaires for the users and their trainers, interviews with the users and their trainers</p> <p>4-2 Training implementation plan, interviews with OCD and Japanese experts</p>	<p>National DRRM policies do not change.</p> <p>National DRRM mechanism does not change drastically. Even if organizational changes affect OCD, any new organization that takes over the current OCD's roles and responsibilities agrees to continue the project.</p>		

## Project Design Matrix (2/2)

Activities	Inputs		Important Assumption
	The Japanese Side	The Philippine Side	
<p>1-1 Review the current state of hazard assessment/information and identify challenges.</p> <p>1-2 Review the current state of risk assessment/information and identify challenges.</p> <p>1-3 Consider risk assessment methods so that disaster-related officials can understand local disaster risks and realize disaster risk reduction through countermeasures.</p> <p>1-4 Set selection criteria and select LGUs in the pilot regions.</p> <p>1-5 Support the review of risk information in the pilot areas based on the existing hazard/risk assessment by using the risk assessment methods considered in 1-3.</p> <p>1-6 Develop draft guidelines for reviewing hazard/risk information.</p> <p>1-7 Based on the results of 4-5, revise the guidelines developed in 1-6.</p> <p>2-1 Review the current state of RDRRMPs/LDRRMPs and identify challenges.</p> <p>2-2 Consider the options of disaster risk reduction measures to reduce human casualties and economic losses based on disaster risk information that should be implemented at each level of region, province, city and municipality.</p> <p>2-3 Support the formulation of RDRRMPs/LDRRMPs in the pilot areas based on the risk assessment conducted in 1-5.</p> <p>2-4 Review the related local plans such as CDP, CLUP and LCCAP, and support adjustment of RDRRMPs/LDRRMPs in the pilot areas.</p> <p>2-5 Develop draft guidelines for the formulation and revision of RDRRMPs/LDRRMPs.</p> <p>2-6 Based on the results of 4-5, revise the guidelines developed in 2-5.</p> <p>3-1 Review the current state of OCD's information management on RDRRMPs/LDRRMPs and identify challenges.</p> <p>3-2 Consider OCD's information management, monitoring and evaluation system and methods for the formulation, revision and implementation of RDRRMPs/LDRRMPs.</p> <p>3-3 Develop draft guidelines and monitoring and evaluation structure in order to implement the system considered in 3-2.</p> <p>3-4 Conduct a workshop for all the OCD regional offices on the draft guidelines and monitoring and evaluation structure developed in 3-3.</p> <p>3-5 Conduct activities in the pilot area based on the draft guidelines and monitoring and evaluation structure developed in 3-3.</p> <p>3-6 Based on the results of 3-5 and 4-5, revise the guidelines and monitoring and evaluation structure developed in 3-3.</p> <p>4-1 Review the current state of DRRM training including construction of the NDRRM Training Institute and identify challenges.</p> <p>4-2 Consider the draft training structure for regions and LGUs.</p> <p>4-3 Based on the guidelines developed in 1-6, 2-5 and 3-3, develop draft training programs and modules for regions and LGUs.</p> <p>4-4 Conduct a workshop for all the OCD regional offices on the draft training programs and modules developed in 4-3.</p> <p>4-5 Conduct training in the pilot areas based on the draft structures for training, monitoring and evaluation developed in 3-3 and 4-2 and the draft training programs and modules developed in 4-3.</p> <p>4-6 Based on the results of 4-5, revise the training structure developed in 4-2 and the training program and modules developed in 4-3.</p> <p>4-7 Develop the training implementation plan (including schedule, budget, training of trainers, etc.) in order to replicate the project outcomes and conduct DRRM training for regions and LGUs in the Philippines.</p>	<p>1. Dispatch of Japanese Experts (Team Leader/DRRM Governance, Disaster Risk Assessment, DRRM Planning, DRRM Information, DRRM Training Program/Capacity Development)</p> <p>2. Training for Counterpart Personnel in Japan</p> <p>3. Local cost for the activity of Japanese Experts</p>	<p>1. Allocation of Counterpart Personnel</p> <p>2. Office space for Japanese experts</p> <p>3. Local cost (regional/local training that are not covered by JICA support)</p>	<p>Large-scale disasters that significantly delay the implementation of activities do not occur.</p> <p>Drastic organizational changes that significantly affect the implementation of activities do not occur.</p> <p>LDRRMCs of the pilot LGUs agree to participate in the project activities.</p> <p>Pre-Conditions</p> <p>Qualified and sufficient number of counterpart personnel are assigned.</p> <p>RDRRMCs of the pilot regions agree to participate in the project activities.</p> <p>&lt;Issues and countermeasures&gt;</p>



## Project Design Matrix (1/2)

Project Title: Disaster Risk Reduction and Management Capacity Enhancement Project Phase II

Implementing Agency: Office of Civil Defense

Target Group: OCD (Headquarters and Regions) and local disaster-related officials centered upon RDRRMC and LDRRMC in the pilot areas

Period of Project: From October 2019 to May 2025 (68 months)

Project Site: OCD Headquarters

Pilot regions: Region IV-A and Region VII


Pilot LGUs: **Davao City and Pilot LGUs in the pilot regions (Pilot LGUs in the pilot regions will be selected in 1-4.)**

Version 2

Dated November 16, 2021

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
<p><b>Overall Goal</b></p> <p>The project outcome is replicated in the Philippines for the purpose of reducing disaster human casualties and economic losses under NDRRMC's initiative.</p>	<p>1 Based on the indicators for Output 1 and Output 2, regions and LGUs formulate, implement, and monitor RDRRMPs/LDRRMPs.</p> <p>2 Based on the indicators for Output 3, OCD implements information management, monitoring and evaluation of RDRRMPs/LDRRMPs.</p> <p>3 Based on the indicators for Output 4, training for regions and LGUs is implemented.</p>	<p>1 OCD Annual Report, RDRRMPs/LDRRMPs, Questionnaires for OCD and RDRRMCs, Interviews with OCD and RDRRMCs</p> <p>2 OCD Annual Report, stored information, stored monitoring and evaluation documents, Questionnaires for OCD, related agencies and RDRRMCs, Interviews with OCD, related agencies and RDRRMCs</p> <p>3 OCD Annual Report, Questionnaires for OCD and RDRRMCs, Interviews with OCD and RDRRMCs</p>	<p>National DRRM policies do not change.</p> <p>The project outcome (plans, <b>guidebooks</b>, and systems developed by the project) is endorsed/approved by NDRRMC.</p>		
<p><b>Project Purpose</b></p> <p>Planning, implementation and monitoring system of RDRRMPs/LDRRMPs is developed for the purpose of reducing disaster human casualties and economic losses with the necessary technical support by National DRRM system centered upon NDRRMC.</p>	<p>1 OCD is ready for implementing its information management, monitoring and evaluation system nationwide.</p> <p>2 RDRRMCs and LDRRMCs in the pilot areas can receive necessary technical support from National DRRM system for planning, implementation and monitoring of RDRRMPs/LDRRMPs.</p>	<p>1 Training implementation plan developed in 4-6, quality and number of trainers, questionnaires for OCD, interviews with Japanese experts</p> <p>2 Questionnaires for OCD and related agencies in the pilot areas, interviews with OCD and related agencies in the pilot areas</p>	<p>National DRRM policies do not change.</p> <p>National DRRM mechanism does not change drastically. Even if organizational changes affect OCD, any new organization that takes over the current OCD's roles and responsibilities agrees to continue the project.</p>		
<p><b>Outputs</b></p> <p>Output 1 : <b>Guidebooks</b> for hazard information use and risk assessment are developed so that disaster-related officials centered upon RDRRMC and LDRRMC can understand local disaster risks and realize disaster risk reduction through countermeasures.</p> <p>Output 2 : <b>Guidebooks</b> for the formulation of RDRRMPs/LDRRMPs based on disaster risk information are developed for the purpose of reducing disaster human casualties and economic losses.</p> <p>Output 3 : OCD's information management (including global indicators such as Sendai Framework for Disaster Risk Reduction), monitoring and evaluation system on the formulation, revision and implementation of RDRRMPs/LDRRMPs is established.</p> <p>Output 4 : Training system is established in order to replicate the project outcome and conduct training for regions and LGUs in the Philippines.</p>	<p>1-1 User friendly <b>guidebooks</b> for regional/local risk hazard information use and risk assessment are developed.</p> <p>1-2 Regional/local disaster-related officials in the pilot areas realize disaster risk reduction through countermeasures.</p> <p>2-1 User friendly <b>guidebooks</b> for the formulation and revision of RDRRMPs/LDRRMPs are developed.</p> <p>3-1 User friendly <b>guidebooks</b> and feasible structure for information management, monitoring and evaluation are developed.</p> <p>3-2 OCD's information management, monitoring and evaluation system and methods function in the pilot areas.</p> <p>4-1 User friendly training programs and modules, and feasible structure for information management, monitoring and evaluation are developed.</p> <p>4-2 OCD's training implementation plan is developed.</p>	<p>1-1 <b>Guidebooks</b>, questionnaires for the users and their trainers, interviews with the users and their trainers</p> <p>1-2 Questionnaires for the regional/local disaster-related officials and their trainers, interviews with OCD and Japanese experts</p> <p>2-1 <b>Guidebooks</b>, questionnaires for the users and their trainers, interviews with the users and their trainers</p> <p>3-1 <b>Guidebooks</b>, questionnaires for the users and their trainers, interviews with the users and their trainers</p> <p>3-2 Questionnaires for the regional/local disaster-related officials and OCD, interview with Japanese experts</p> <p>4-1 Training programs and module development, questionnaires for the users and their trainers, interviews with the users and their trainers</p> <p>4-2 Training implementation plan, interviews with OCD and Japanese experts</p>	<p>National DRRM policies do not change.</p> <p>National DRRM mechanism does not change drastically. Even if organizational changes affect OCD, any new organization that takes over the current OCD's roles and responsibilities agrees to continue the project.</p>		

## Project Design Matrix (2/2)

Activities	Inputs		Important Assumption
	The Japanese Side	The Philippine Side	
<p>1-1 Review the current state of hazard assessment/information and identify challenges.</p> <p>1-2 Review the current state of risk assessment/information and identify challenges.</p> <p>1-3 Consider risk assessment methods so that disaster-related officials can understand local disaster risks and realize disaster risk reduction through countermeasures.</p> <p>1-4 Set selection criteria and select LGUs in the pilot regions.</p> <p>1-5 Support the review of risk information in the pilot areas based on the existing hazard/risk assessment by using the risk assessment methods considered in 1-3.</p> <p>1-6 Develop draft <b>guidebooks</b> for reviewing hazard/risk information.</p> <p>1-7 Based on the results of 4-5, revise the <b>guidebooks</b> developed in 1-6.</p> <p>2-1 Review the current state of RDRRMPs/LDRRMPs and identify challenges.</p> <p>2-2 Consider the options of disaster risk reduction measures to reduce human casualties and economic losses based on disaster risk information that should be implemented at each level of region, province, city and municipality.</p> <p>2-3 Support the formulation of RDRRMPs/LDRRMPs in the pilot areas based on the risk assessment conducted in 1-5.</p> <p>2-4 Review the related local plans such as CDP, CLUP and LCCAP, and support adjustment of RDRRMPs/LDRRMPs in the pilot areas.</p> <p>2-5 Develop draft <b>guidebooks</b> for the formulation and revision of RDRRMPs/LDRRMPs.</p> <p>2-6 Based on the results of 4-5, revise the <b>guidebooks</b> developed in 2-5.</p> <p>3-1 Review the current state of OCD's information management on RDRRMPs/LDRRMPs and identify challenges.</p> <p>3-2 Consider OCD's information management, monitoring and evaluation system and methods for the formulation, revision and implementation of RDRRMPs/LDRRMPs.</p> <p>3-3 Develop draft <b>guidebooks</b> and monitoring and evaluation structure in order to implement the system considered in 3-2.</p> <p>3-4 Conduct a workshop for all the OCD regional offices on the draft <b>guidebooks</b> and monitoring and evaluation structure developed in 3-3.</p> <p>3-5 Conduct activities in the pilot area based on the draft <b>guidebooks</b> and monitoring and evaluation structure developed in 3-3.</p> <p>3-6 Based on the results of 3-5 and 4-5, revise the <b>guidebooks</b> and monitoring and evaluation structure developed in 3-3.</p> <p>4-1 Review the current state of DRRM training including construction of the NDRRM Training Institute and identify challenges.</p> <p>4-2 Consider the draft training structure for regions and LGUs.</p> <p>4-3 Based on the <b>guidebooks</b> developed in 1-6, 2-5 and 3-3, develop draft training programs and modules for regions and LGUs.</p> <p>4-4 Conduct a workshop for all the OCD regional offices on the draft training programs and modules developed in 4-3.</p> <p>4-5 Conduct training in the pilot areas based on the draft structures for training, monitoring and evaluation developed in 3-3 and 4-2 and the draft training programs and modules developed in 4-3.</p> <p>4-6 Based on the results of 4-5, revise the training structure developed in 4-2 and the training program and modules developed in 4-3.</p> <p>4-7 Develop the training implementation plan (including schedule, budget, training of trainers, etc.) in order to replicate the project outcomes and conduct DRRM training for regions and LGUs in the Philippines.</p>	<p>1. Dispatch of Japanese Experts (Team Leader/DRRM Governance, Disaster Risk Assessment, DRRM Planning, DRRM Information, DRRM Training Program/Capacity Development)</p> <p>2. Training for Counterpart Personnel in Japan</p> <p>3. Local cost for the activity of Japanese Experts</p>	<p>1. Allocation of Counterpart Personnel</p> <p>2. Office space for Japanese experts</p> <p>3. Local cost (regional/local training that are not covered by JICA support)</p>	<p>Large-scale disasters that significantly delay the implementation of activities do not occur.</p> <p>Drastic organizational changes that significantly affect the implementation of activities do not occur.</p> <p>LDRRMPs of the pilot LGUs agree to participate in the project activities.</p> <p>Pre-Conditions</p> <p>Qualified and sufficient number of counterpart personnel are assigned.</p> <p>RDRRMPs of the pilot regions agree to participate in the project activities.</p> <p style="text-align: center;"></p> <p>&lt;Issues and countermeasures&gt;</p>

# **ANNEX4 Minutes of Meetings**

1	RECORD OF DISCUSSIONS.....	A4-1
2	MINUTES OF MEETINGS.....	A4-10
3	MINUTES OF MEETING FOR AMENDMENT OF RECORD OF DISCUSSION.....	A4-32
4	1 <sup>st</sup> JCC SOD.....	A4-48
5	2 <sup>nd</sup> JCC SOD.....	A4-108

**RECORD OF DISCUSSIONS**

**FOR**

**DISASTER RISK REDUCTION AND MANAGEMENT CAPACITY  
ENHANCEMENT PROJECT PHASE II**

**AGREED UPON BETWEEN**

**THE OFFICE OF CIVIL DEFENSE**

**OF**

**THE REPUBLIC OF THE PHILIPPINES**

**AND**

**JAPAN INTERNATIONAL COOPERATION AGENCY**

**Dated AUGUST 6, 2019**

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Based on the minutes of meetings on the Detailed Planning Survey for the Disaster Risk Reduction and Management Capacity Enhancement Project Phase II (hereinafter referred to as "the Project") signed on December 14, 2017 between the Office of Civil Defense of Republic of the Philippines (hereinafter referred to as "the Counterpart") and the Japan International Cooperation Agency (hereinafter referred to as "JICA"), JICA held a series of discussions with the Counterpart and relevant organizations to develop a detailed plan of the Project.

The purpose of this record of discussions (hereinafter referred to as "the R/D") is to establish a mutual agreement for its implementation by both parties and to agree on the detailed plan of the Project as described in the followings and the Annexes, which will be implemented within the framework of the Agreement on Technical Cooperation signed on April 4, 2006 (hereinafter referred to as "the Agreement") and the Note Verbales exchanged on May 17, 2017 between the Government of Japan and the Government of Philippines.

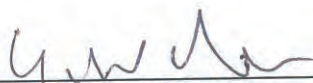
The Counterpart will be responsible for the implementation of the Project in cooperation with JICA, coordinate with other relevant organizations and ensure that the self-reliant operation of the Project is sustained during and after the implementation period in order to contribute toward social and economic development of the Philippines.

Both parties also agreed that the Project will be implemented in accordance with the "Basic Principles for Technical Cooperation" published in December 2016 (hereinafter referred to as "the BP"), unless other arrangements are agreed in the R/D.

The R/D is delivered at Manila as of the day and year first above written. The R/D may be amended by a minutes of meetings between both parties, except the plan of operation to be modified in monitoring sheets. The minutes of meetings will be signed by authorized persons of each side who may be different from the signers of the R/D.


For

JAPAN INTERNATIONAL  
COOPERATION AGENCY

  
\_\_\_\_\_  
Mr. YOSHIO WADA  
Chief Representative  
JICA Philippines Office

For

THE OFFICE OF CIVIL DEFENSE

  
\_\_\_\_\_  
USEC RICARDO B. JALAD  
Administrator, Office of Civil Defense &  
Executive Director, National Disaster  
Risk Reduction and Management  
Council

- Annex 1 Main Points Discussed
- Annex 2 Project Design Matrix (PDM)
- Annex 3 Plan of Operation (PO)
- Annex 4 Implementation Structure
- Annex 5 List of Proposed Members of Joint Coordinating Committee

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**MAIN POINTS DISCUSSED**

1. Environmental and Social Considerations  
With regard to the Section 10.1 of the BP, the Project is likely to have minimal adverse impact on the environment and society under the 'JICA Guidelines for Environmental and Social Considerations (April 2010)'.
2. The Change of the Counterpart in Response to the Reorganization  
In case that a new DRRM Authority that replaces the OCD is established based on the reorganization planned by the Government of the Philippines and take over the mandate in the future, the Counterpart will be changed to a new authority from the OCD. In addition, the Counterpart described in the R / D is replaced from the OCD to the new Agency.



## Project Design Matrix

Project Title: Disaster Risk Reduction and Management Capacity Enhancement Project Phase II

Implementing Agency: Office of Civil Defense

Target Group: OCD (Headquarters and Regions) and local disaster-related officials centered upon RDRRMC and LDRRMC in the pilot areas

Period of Project: From 2019 to 2024

Project Site: OCD Headquarters

Pilot regions: Region IV-A and Region VII

Pilot LGUs: Pilot LGUs in the pilot regions will be selected in 1-4.

Version 0

Dated December 13, 2017

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
<b>Overall Goal</b> The project outcome is replicated in the Philippines for the purpose of reducing disaster human casualties and economic losses under NDRRMC's initiative.	1 Based on the indicators for Output 1 and Output 2, regions and LGUs formulate, implement, and monitor RDRRMPs/LDRRMPs.  2 Based on the indicators for Output 3, information management, OCD implements information management, monitoring and evaluation of RDRRMPs/LDRRMPs.  3 Based on the indicators for Output 4, training for regions and LGUs is implemented.	1 OCD Annual Report, RDRRMPs/LDRRMPs, Questionnaires for OCD and RDRRMCs, Interviews with OCD and RDRRMCs  2 OCD Annual Report, stored information, stored monitoring and evaluation documents, Questionnaires for OCD, related agencies and RDRRMCs, Interviews with OCD, related agencies and RDRRMCs  3 OCD Annual Report, Questionnaires for OCD and RDRRMCs, Interviews with OCD and RDRRMCs			
<b>Project Purpose</b> Planning, implementation and monitoring system of RDRRMPs/LDRRMPs is developed for the purpose of reducing disaster human casualties and economic losses with the necessary technical support by National DRRM system centered upon NDRRMC.	1 OCD is ready for implementing its information management, monitoring and evaluation system in nationwide.  2 RDRRMCs and LDRRMCs in the pilot areas can receive necessary technical support from National DRRM system for planning, implementation and monitoring of RDRRMPs/LDRRMPs.	1 Training implementation plan developed in 4-6, quality and number of trainers, questionnaires for OCD, interviews with Japanese experts  2 Questionnaires for OCD and related agencies in the pilot areas, interviews with OCD and related agencies in the pilot areas	National DRRM policies do not change.  The project outcome (plans, guidelines, and systems developed by the project) is endorsed/approved by NDRRMC.		
<b>Outputs</b>  Output 1: Guidelines for hazard information use and risk assessment are developed so that disaster-related officials centered upon RDRRMC and LDRRMC can understand local disaster risks and realize disaster risk reduction through countermeasures.  Output 2: Guidelines for the formulation of RDRRMPs/LDRRMPs based on disaster risk information are developed for the purpose of reducing disaster human casualties and economic losses.  Output 3: OCD's information management (including global indicators such as Sendai Framework for Disaster Risk Reduction), monitoring and evaluation system on the formulation, revision and implementation of RDRRMPs/LDRRMPs is established.  Output 4: Training system is established in order to replicate the project outcome and conduct training for regions and LGUs in the Philippines.	1-1 User friendly guidelines for regional/local risk hazard information use and risk assessment are developed. 1-2 Regional/local disaster-related officials in the pilot areas realize disaster risk reduction through countermeasures.  2-1 User friendly guidelines for the formulation and revision of RDRRMPs/LDRRMPs are developed.  3-1 User friendly guidelines and feasible structure for information management, monitoring and evaluation are developed. 3-2 OCD's information management, monitoring and evaluation system and methods function in the pilot areas.  4-1 User friendly training programs and modules, and feasible structure for information management, monitoring and evaluation are developed. 4-2 OCD's training implementation plan is developed.	1-1 Guidelines, questionnaires for the users and their trainers, interviews with the users and their trainers 1-2 Questionnaires for the regional/local disaster-related officials and their trainers, interviews with OCD and Japanese experts  2-1 Guidelines, questionnaires for the users and their trainers, interviews with the users and their trainers  3-1 Guidelines, questionnaires for the users and their trainers, interviews with the users and their trainers 3-2 Questionnaires for the regional/local disaster-related officials and OCD, interview with Japanese experts  4-1 Training programs and modules, questionnaires for the users and their trainers, interviews with the users and their trainers 4-2 Training implementation plan, interviews with OCD and Japanese experts	National DRRM policies do not change.  National DRRM mechanism does not change drastically. Even if organizational changes affect OCD, new organization that takes over current OCD's roles and responsibilities agrees to continue the project.		

Activities	Inputs		Important Assumption
	The Japanese Side	The Philippine Side	
1-1 Review the current state of hazard assessment/information and identify challenges. 1-2 Review the current state of risk assessment/information and identify challenges. 1-3 Consider risk assessment methods so that disaster-related officials can understand local disaster risks and realize disaster risk reduction through countermeasures. 1-4 Set selection criteria and select LGUs in the pilot regions. 1-5 Support the review of risk information in the pilot areas based on the existing hazard/risk assessment by using the risk assessment methods considered in 1-3. 1-6 Develop draft guidelines for reviewing hazard/risk information. 1-7 Based on the results of 4-4, revise the guidelines developed in 1-6.	1 Dispatch of Japanese Experts (Team Leader/DRRM Governance, Disaster Risk Assessment, DRRM Planning, DRRM Information, DRRM Training Program/Capacity Development)  2 Training for Counterpart Personnel in Japan  3 Local cost for the activity of Japanese Experts	1 Allocation of Counterpart Personnel  2 Office space for Japanese experts  3 Local cost (regional/local training that are not covered by JICA support)	Large-scale disasters that significantly delay the implementation of activities do not occur.  Drastic organizational change that significantly affect the implementation of activities do not occur.  LDRRMCs of the pilot LGUs agree to participate in the project activities.



<p>2-1 Review the current state of RDRRMPs/LDRRMPs and identify challenges.</p> <p>2-2 Consider the options of disaster risk reduction measures to reduce human casualties and economic losses based on disaster risk information that should be implemented at each level of region, province, city and municipality.</p> <p>2-3 Support the formulation of RDRRMPs/LDRRMPs in the pilot areas based on the risk assessment conducted in 1-5.</p> <p>2-4 Review the related local plans such as CDP, CLUP and LCCAP, and support adjustment of RDRRMPs/LDRRMPs in the pilot areas.</p> <p>2-5 Develop draft guidelines for the formulation and revision of RDRRMPs/LDRRMPs.</p> <p>2-6 Based on the results of 4-4, revise the guidelines developed in 2-5.</p> <p>3-1 Review the current state of OCD's information management on RDRRMPs/LDRRMPs and identify challenges.</p> <p>3-2 Consider OCD's information management, monitoring and evaluation system and methods for the formulation, revision and implementation of RDRRMPs/LDRRMPs.</p> <p>3-3 Develop draft guidelines and monitoring and evaluation structure in order to implement the system considered in 3-2.</p> <p>3-4 Conduct a workshop for all OCD regional offices on the draft guidelines and monitoring and evaluation structure developed in 3-3.</p> <p>3-5 Conduct activities in the pilot area based on the draft guidelines and monitoring and evaluation structure developed in 3-3.</p> <p>3-6 Based on the results of 3-4 and 4-4, revise the guidelines and monitoring and evaluation structure developed in 3-3.</p> <p>4-1 Review the current state of DRRM training including construction of the NDRRM Training Institute and identify challenges.</p> <p>4-2 Consider the draft training structure for regions and LGUs.</p> <p>4-3 Based on the guidelines developed in 1-6, 2-5 and 3-3, develop draft training programs and modules for regions and LGUs.</p> <p>4-4 Conduct a workshop for all the OCD regional offices on the draft training programs and modules.</p> <p>4-5 Conduct training in the pilot areas based on the draft structures for training, monitoring and evaluation developed in 3-3 and 4-2 and the draft training programs and modules.</p> <p>4-6 Based on the results of 4-4, revise the training structure developed in 4-2 and the training program and modules developed in 4-3.</p> <p>4-7 Develop the training implementation plan (including timeline, budget, training of trainers, etc.) in order to replicate the project outcomes and conduct DRRM training for regions and LGUs in the Philippines.</p>			<p style="text-align: center;"><b>Pre-Conditions</b></p> <p>Qualified and enough number of counterpart personnel are assigned.</p> <p>RDRRMCs of the pilot regions agree to participate in the project activities.</p> <p style="text-align: center;">↓</p> <p><b>&lt;Issues and countermeasures&gt;</b></p>
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Tentative Plan of Operation

Version 0  
 Dated December 13, 2017

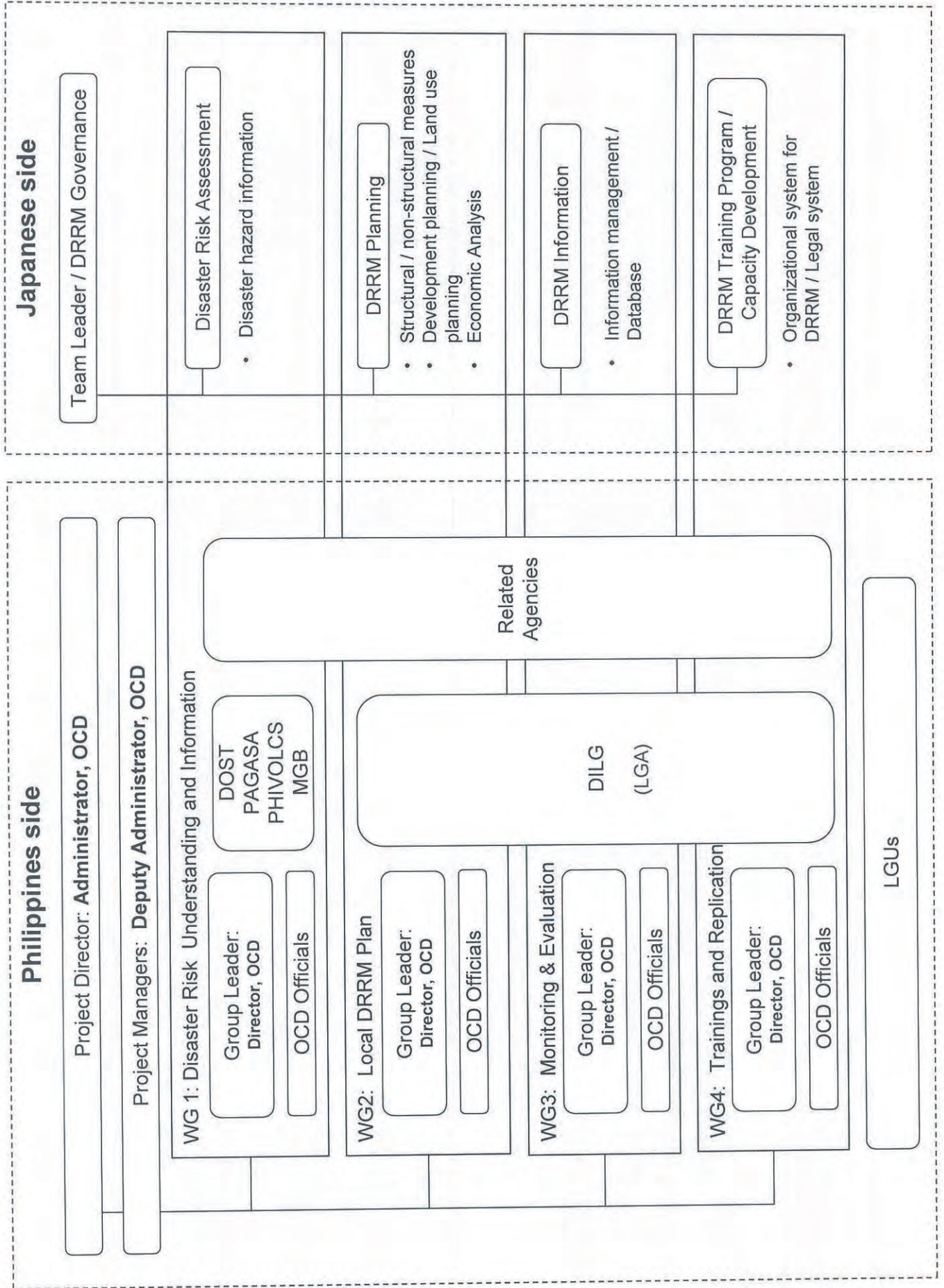
Project Title: Disaster Risk Reduction and Management Capacity Enhancement Project Phase II

Activities Sub-Activities	Year	Monitoring																				Responsible Organization Japan Philippines	Achievements	Issue & Countermeasures							
		1st Year					2nd Year					3rd Year					4th Year								5th Year						
		I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V				I	II	III	IV	V		
<b>Output 1:</b>								Plan																							
1-1 Review the current state of hazard assessment/information and identify challenges.		Plan																													
Actual		Actual																													
1-2 Review the current state of risk assessment/information and identify challenges.		Plan																													
Actual		Actual																													
1-3 Consider risk assessment methods so that disaster-related officials can understand local disaster risks and realize disaster risk reduction through countermeasures.		Plan																													
Actual		Actual																													
1-4 Set selection criteria and select LGUs in the pilot regions.		Plan																													
Actual		Actual																													
1-5 Support the review of risk information in the pilot areas based on the existing hazard/risk assessment by using the risk assessment methods considered in 1-3.		Plan																													
Actual		Actual																													
1-6 Develop draft guidelines for reviewing hazard/risk information.		Plan																													
Actual		Actual																													
1-7 Based on the results of 4-4, revise the guidelines developed in 1-6.		Plan																													
Actual		Actual																													
<b>Output 2:</b>								Plan																							
2-1 Review the current state of RDRRMPs/LDRRMPs and identify challenges.		Plan																													
Actual		Actual																													
2-2 Consider the options of disaster risk reduction measures to reduce human casualties and economic losses based on disaster risk information that should be implemented at each level of region, province, city and municipality.		Plan																													
Actual		Actual																													
2-3 Support the formulation of RDRRMPs/LDRRMPs in the pilot areas based on the risk assessment conducted in 1-5.		Plan																													
Actual		Actual																													
2-4 Review the related local plans such as CDP, CLUP and LCCAP, and support adjustment of RDRRMPs/LDRRMPs in the pilot areas.		Plan																													
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Actual		Actual																													
2-6 Based on the results of 4-4, revise the guidelines developed in 2-5.		Plan																													
Actual		Actual																													
<b>Output 3:</b>								Plan																							
3-1 Review the current state of OCD's information management on RDRRMPs/LDRRMPs and identify challenges.		Plan																													
Actual		Actual																													
3-2 Consider OCD's information management, monitoring and evaluation system and methods for the formulation, revision and implementation of RDRRMPs/LDRRMPs.		Plan																													
Actual		Actual																													
3-3 Develop draft guidelines and monitoring and evaluation structure in order to implement the system considered in 3-2.		Plan																													
Actual		Actual																													
3-4 Conduct a workshop for all the OCD regional offices on the draft guidelines and monitoring and evaluation structure developed in 3-3.		Plan																													
Actual		Actual																													
3-5 Conduct activities in the pilot area based on the draft guidelines and monitoring and evaluation structure developed in 3-3.		Plan																													
Actual		Actual																													
3-6 Based on the results of 3-4 and 4-4, revise the guidelines and monitoring and evaluation structure developed in 3-3.		Plan																													
Actual		Actual																													
<b>Output 4:</b>								Plan																							
4-1 Review the current state of DRRM training including construction of the NDRRM Training Institute and identify challenges.		Plan																													
Actual		Actual																													
4-2 Consider the draft training structure for regions and LGUs.		Plan																													
Actual		Actual																													
4-3 Based on the guidelines developed in 1-6, 2-5 and 3-3, develop draft training programs and modules for regions and LGUs.		Plan																													
Actual		Actual																													
4-4 Conduct a workshop for all the OCD regional offices on the draft training programs and modules developed in 4-3.		Plan																													
Actual		Actual																													
4-5 Conduct training in the pilot areas based on the draft structures for training, monitoring and evaluation developed in 3-3 and 4-2 and the draft training programs and modules.		Plan																													
Actual		Actual																													
4-6 Based on the results of 4-4, revise the training structure developed in 4-2 and the training program and modules developed in 4-3.		Plan																													
Actual		Actual																													
4-7 Develop the training implementation plan (including timeline, budget, training of trainers, etc.) in order to replicate the project outcomes and conduct DRRM training for regions and LGUs in the Philippines.		Plan																													
Actual		Actual																													
<b>Duration / Phasing</b>								Plan																							
Actual																															
Monitoring Plan		Year	1st Year					2nd Year					3rd Year					4th Year					5th Year					Remarks	Issue	Solution	
Monitoring			I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V				
Joint Coordinating Committee	Plan																														
Set-up the Detailed Plan of Operation	Actual																														
Submission of Monitoring Sheet	Plan																														
Monitoring Mission from Japan	Actual																														
	Plan																														
	Actual																														
	Plan																														
	Actual																														
<b>Reports/Documents</b>																															
Progress Report	Plan																														
Project Completion Report	Actual																														
<b>Public Relations</b>																															
	Plan																														
	Actual																														
	Plan																														
	Actual																														

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Implementation Structure



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**List of Proposed Members of Joint Coordination Committee (JCC)**

1. **Chairperson:** Administrator, OCD
  
2. **Members:**
  - (1) Deputy Administrator, OCD
  - (2) Leader of WG 1:
  - (3) Leader of WG 2:
  - (4) Leader of WG 3:
  - (5) Leader of WG 4:
  - (6) Regional Directors where selected LGUs are located, OCD
  - (7) Representative/s from Department of Public Works and Highways (DPWH)
  - (8) Representative/s from Department of Science and Technology (DOST)
  - (9) Representative/s from Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
  - (10) Representative/s from Philippine Institute of Volcanology and Seismology (PHIVOLCS)
  - (11) Representative/s from Department of the Interior and Local Government (DILG)
  - (12) Representative/s from Department of Social Welfare and Development (DSWD)
  - (13) Representative/s from Department of National Economic Development Agency (NEDA)
  - (14) Representative/s from the Mines and Geosciences Bureau (MGB)
  - (15) JICA Experts
  - (16) Representative/s from JICA Philippines Office
  - (17) Any other personnel appointed by OCD and /or JICA if required
  
3. **Observers:**
  - (1) Representatives from LGUs which are selected
  - (2) Representative/s from JICA Headquarter
  - (3) Embassy of Japan in the Philippines
  - (4) Any other personnel appointed by OCD and /or JICA if required

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**MINUTES OF MEETINGS  
BETWEEN  
JAPAN INTERNATIONAL COOPERATION AGENCY  
AND  
THE OFFICE OF CIVIL DEFENSE  
FOR  
DISASTER RISK REDUCTION AND MANAGEMENT CAPACITY  
ENHANCEMENT PROJECT PHASE II**

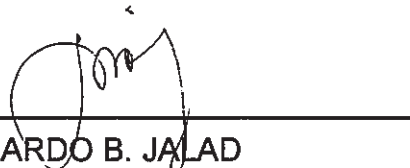
Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Detailed Planning Survey Team (hereinafter referred to as "the Team") to the Republic of the Philippines (hereinafter referred to as "Philippines") from November 19 to 25 and from December 3 to 16, 2017, for the purpose of discussing the framework of requested technical cooperation project entitled "Disaster Risk Reduction and Management Capacity Enhancement Project Phase II" (hereinafter referred to as "the Project").

During its stay in the Philippines, the Team exchanged views and had a series of discussions with officials of the Office of Civil Defense (hereinafter referred to as "OCD") and Philippines authorities concerned. As a result of the survey, the Team and OCD (hereinafter referred to as "both sides") agreed on the matters referred to in the document attached hereto.

Quezon, December 14, 2017



Ms. Ayumu Ohshima  
Leader  
Detailed Planning Survey Team  
Japan International Cooperation Agency  
Japan



USEC RICARDO B. JALAD  
Administrator, Office of Civil Defense &  
Executive Director, National Disaster Risk  
Reduction and Management Council  
The Republic of the Philippine

## THE ATTACHED DOCUMENT

### 1. Current Situation on Disaster Risk Reduction and Management in the Philippines

#### (1) Current status of the sunset review on RA10121

OCD confirmed that the sunset review on Philippine Disaster Reduction and Management Act (hereinafter referred to as "RA10121") still remains under discussion and shared its expectation that it may be approved in 2018 if all the steps for the review works go smoothly.

#### (2) Future Plan to establish the new DRRM Authority that may cause certain changes in the present roles, organizational structure and/or staffing pattern of OCD

OCD confirmed the possibility to establish the new DRRM Authority which may cause the above changes of OCD in near future in response to the reorganization planned by the Philippines Government. Besides, both sides agreed that the Implementation Agency will be changed from OCD to the new authority in case that it is established and take over the mandate from OCD.

### 2. Project Framework and Basic Concepts of the Project

Both sides confirmed that the frameworks and the basic concepts of the Project are as follows;

(1) The framework of the Project is shown in the Project Design Matrix (hereinafter referred to as "PDM") as shown in Annex 1 of the draft Record of Discussions (hereinafter referred to as "R/D") as shown in Appendix 1.

(2) PDM is used for managing and implementing the Project effectively and as a reference for monitoring and evaluation.

(3) This Project will aim maximize utilization of existing resources and facilities in order to achieve the Project Purpose.

### 3. Duration of the Project

Both sides agreed that the duration of the Project will be 60 months from the first arrival of JICA Expert(s).

### 4. Selection of the Pilot Regions and LGUs

Both side agreed that Region VI-A and Region VII were selected as the pilot regions in the Project base on the criteria described in the Appendix 2 and pilot LGUs will be selected in these pilot regions through Activity 1-4 of the PDM based on the result of the base line survey.

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5. Implementation Structure

Both sides agreed on the implementation structure as shown in Annex 4 of the draft R/D as shown in Appendix 1.

6. Undertakings of the Philippines Side

OCD and the Government of the Philippines accepted the undertakings stipulated in the Basic Principles for Technical Cooperation and inputs described in PDM. Both sides also confirmed that the following before starting the Project.

- (1) Assignment of at least 2 counterpart personnel from OCD for each Working Group
- (2) Assignment of at least 1 counterpart personnel from other agencies for each Working Group
- (3) Budget allocation for the activities conducted in 2018
- (4) Office space and facilities for JICA Expert

7. Members of Joint Coordination Committee

Both sides agreed that Joint Coordinating Committee (hereinafter referred to as "JCC") will be established being composed of the proposed members of Joint Coordination Committee (JCC) as shown in Annex 5 of the draft R/D in Appendix 1..

8. Tentative Schedule for the Commencement of the Project

Both sides confirmed the tentative schedule and the necessary procedures before the commencement of the Project as follows.

- Internal approval process of R/D by both JICA and OCD
- Signing of R/D in February 2018,
- Procurement process for consultancy by JICA
- Starting the Project in 2018

9. Future Arrangement on the Collaboration with Projects by Other Donors

Both sides confirmed that the Global Centre for Disaster Statistics (GCDS) Project supported by Fujitsu, Tohoku University and UNDP is implemented and the principal to make a possible collaboration between the projects after starting the Project.

10. Sharing the Outcomes through International and Regional Conferences

Both side confirmed that the outcome of the Project will be shared through conferences such as Global Platform for Disaster Risk Reduction and Asian Ministerial Conference on Disaster Risk Reduction.

11. Signing of the Record of Discussions

Both sides confirmed that the R/D will be signed by the representative of JICA and

OCD.

12. Contribution to the Sendai Framework for the Disaster Risk Reduction

Both sides confirmed that the Project will align with the Sendai Framework for Disaster Risk Reduction 2015-2030 (hereinafter referred to as "the Sendai Framework") and contribute directly to the following items of the Sendai Framework;

<Priorities for Action>

Priority 1 "Understanding disaster risk"

Priority 2 "Strengthening disaster risk governance to manage disaster risk"

<Global Target>

(e) "Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020"

(g) "Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030"

13. Utilization of outcomes and lessons learnt from the previous project

Both sides confirmed that the Project will utilize outcomes and lessons learnt from "Disaster Risk Reduction and Management Capacity Enhancement Project", especially by fine-tuning the monitoring & evaluation tool of Local DRRM Plans and Offices.

14. Format of Monitoring Sheet

Both sides agreed that regular monitoring of the Project will be conducted by using the Format as shown in Appendix 2 in order to confirm the progress and recognize the issues to be improved during the implementation of the Project.

Appendix 1 Draft of Record of Discussions

Annex 1 Main Point Discussed

Annex 2 Project Design Matrix (PDM)

Annex 3 Plan of Operation (PO)

Annex 4 Implementation Structure

Annex 5 List of Proposed Members of Joint Coordination Committee

Appendix 2 Selection Criteria of Pilot Regions

Appendix 3 Format of Monitoring Sheet



**<DRAFT>**

**RECORD OF DISCUSSIONS**

**FOR**

**DISASTER RISK REDUCTION AND MANAGEMENT CAPACITY  
ENHANCEMENT PROJECT PHASE II**

**AGREED UPON BETWEEN**

**THE OFFICE OF CIVIL DEFENSE**

**OF**

**THE REPUBLIC OF THE PHILIPPINES**

**AND**

**JAPAN INTERNATIONAL COOPERATION AGENCY**

**Dated Month Day, Year**

Based on the minutes of meetings on the Detailed Planning Survey for the Disaster Risk Reduction and Management Capacity Enhancement Project Phase II (hereinafter referred to as "the Project") signed on December 14, 2017 between the Office of Civil Defense of Republic of the Philippines (hereinafter referred to as "the Counterpart") and the Japan International Cooperation Agency (hereinafter referred to as "JICA"), JICA held a series of discussions with the Counterpart and relevant organizations to develop a detailed plan of the Project.

The purpose of this record of discussions (hereinafter referred to as "the R/D") is to establish a mutual agreement for its implementation by both parties and to agree on the detailed plan of the Project as described in the followings and the Annexes, which will be implemented within the framework of the Agreement on Technical Cooperation signed on April 4, 2006 (hereinafter referred to as "the Agreement") and the Note Verbales exchanged on May 17, 2017 between the Government of Japan and the Government of Philippines.

The Counterpart will be responsible for the implementation of the Project in cooperation with JICA, coordinate with other relevant organizations and ensure that the self-reliant operation of the Project is sustained during and after the implementation period in order to contribute toward social and economic development of the Philippines.

Both parties also agreed that the Project will be implemented in accordance with the "Basic Principles for Technical Cooperation" published in --- 2016 (hereinafter referred to as "the BP"), unless other arrangements are agreed in the R/D.

The R/D is delivered at Manila as of the day and year first above written. The R/D may be amended by a minutes of meetings between both parties, except the plan of operation to be modified in monitoring sheets. The minutes of meetings will be signed by authorized persons of each side who may be different from the signers of the R/D.

For

JAPAN INTERNATIONAL  
COOPERATION AGENCY

For

THE OFFICE OF CIVIL DEFENSE

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Mr. Susumu Ito  
Chief Representative  
JICA Philippines Office

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USEC RICARDO B. JALAD  
Administrator, Office of Civil Defense &  
Executive Director, National Disaster  
Risk Reduction and Management  
Council

- Annex 1 Main Points Discussed
- Annex 2 Project Design Matrix (PDM)
- Annex 3 Plan of Operation (PO)
- Annex 4 Implementation Structure
- Annex 5 List of Proposed Members of Joint Coordinating Committee

### MAIN POINTS DISCUSSED

1. Environmental and Social Considerations  
With regard to the Section 10.1 of the BP, the Project is likely to have minimal adverse impact on the environment and society under the 'JICA Guidelines for Environmental and Social Considerations (April 2010)'.
2. The Change of the Counterpart in Response to the Reorganization  
In case that a new DRRM Authority that replaces the OCD is established based on the reorganization planned by the Government of the Philippines and take over the mandate in the future, the Counterpart will be changed to a new authority from the OCD. In addition, the Counterpart described in the R / D is replaced from the OCD to the new Agency.

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**Project Design Matrix**

**Version 0**  
**Dated December 13, 2017**

**Project Title:** Disaster Risk Reduction and Management Capacity Enhancement Project Phase II.  
**Implementing Agency:** Office of Civil Defense.  
**Target Group:** OCD (Headquarters, and Regions) and local disaster-related officials centered upon RDRRMC and LDRRMC in the pilot areas  
**Period of Project:** From 2018 to 2023.  
**Project Site:** OCD Headquarters

**Pilot regions:** Region IV-A and Region VII  
**Pilot LGUs:** Pilot LGUs in the pilot regions will be selected in 1-4.

<b>Narrative Summary</b>	<b>Objectively Verifiable Indicators</b>	<b>Means of Verification</b>	<b>Important Assumption</b>	<b>Achievement</b>	<b>Remarks</b>
<p><b>Overall Goal</b>                      The project outcome is replicated in the Philippines for the purpose of reducing disaster human casualties and economic losses under NDRRMC's initiative.</p>	<p>1 Based on the indicators for Output 1 and Output 2, regions and LGUs formulate, implement, and monitor RDRRMPs/LDRRMPs.                      2 Based on the indicators for Output 3, information management, OCD implements information management, monitoring and evaluation of RDRRMPs/LDRRMPs.                      3 Based on the indicators for Output 4, training for regions and LGUs is implemented.</p>	<p>1 OCD Annual Report, RDRRMPs/LDRRMPs, Questionnaires for OCD and RDRRMCs, Interviews with OCD and RDRRMCs                      2 OCD Annual Report, stored information, stored monitoring and evaluation documents, Questionnaires for OCD, related agencies and RDRRMCs, Interviews with OCD, related agencies and RDRRMCs                      3 OCD Annual Report, Questionnaires for OCD and RDRRMCs, Interviews with OCD and RDRRMCs</p>			
<p><b>Project Purpose</b>                      Planning, implementation and monitoring system of RDRRMPs/LDRRMPs is developed for the purpose of reducing disaster human casualties and economic losses with the necessary technical support by National DRRM system centered upon NDRRMC.</p>	<p>1 OCD is ready for implementing its information management, monitoring and evaluation system in nationwide.                      2 RDRRMCs and LDRRMCs in the pilot areas can receive necessary technical support from National DRRM system for planning, implementation and monitoring of RDRRMPs/LDRRMPs.</p>	<p>1 Training implementation plan developed in 4-6, quality and number of trainers, questionnaires for OCD, interviews with Japanese experts                      2 Questionnaires for OCD and related agencies in the pilot areas, interviews with OCD and related agencies in the pilot areas</p>	<p>National DRRM policies do not change.                      The project outcome (plans, guidelines, and systems developed by the project) is endorsed/approved by NDRRMC.</p>		

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<p><b>Outputs</b></p> <p><b>Output 1:</b> Guidelines for hazard information use and risk assessment are developed so that disaster-related officials centered upon RDRRMC and LDRRMC can understand local disaster risks and realize disaster risk reduction through countermeasures.</p> <p><b>Output 2:</b> Guidelines for the formulation of RDRRMPs/LDRRMPs based on disaster risk information are developed for the purpose of reducing disaster human casualties and economic losses.</p> <p><b>Output 3:</b> OCD's information management (including global indicators such as Sendai Framework for Disaster Risk Reduction), monitoring and evaluation system on the formulation, revision and implementation of RDRRMPs/LDRRMPs is established.</p> <p><b>Output 4:</b> Training system is established in order to replicate the project outcome and conduct training for regions and LGUs in the Philippines.</p>	<p>1-1 User friendly guidelines for regional/local risk hazard information use and risk assessment are developed.</p> <p>1-2 Regional/local disaster-related officials in the pilot areas realize disaster risk reduction through countermeasures.</p> <p>2-1 User friendly guidelines for the formulation and revision of RDRRMPs/LDRRMPs are developed.</p> <p>3-1 User friendly guidelines and feasible structure for information management, monitoring and evaluation are developed.</p> <p>3-2 OCD's information management, monitoring and evaluation system and methods function in the pilot areas.</p> <p>4-1 User friendly training programs and modules, and feasible structure for information management, monitoring and evaluation are developed.</p> <p>4-2 OCD's training implementation plan is developed.</p>	<p>1-1 Guidelines, questionnaires for the users and their trainers, interviews with the users and their trainers</p> <p>1-2 Questionnaires for the regional/local disaster-related officials and their trainers, interviews with OCD and Japanese experts</p> <p>2-1 Guidelines, questionnaires for the users and their trainers, interviews with the users and their trainers</p> <p>3-1 Guidelines, questionnaires for the users and their trainers, interviews with the users and their trainers</p> <p>3-2 Questionnaires for the regional/local disaster-related officials and OCD, interview with Japanese experts</p> <p>4-1 Training programs and modules, questionnaires for the users and their trainers, interviews with the users and their trainers</p> <p>4-2 Training implementation plan, interviews with OCD and Japanese experts</p>	<p>National DRRM policies do not change.</p> <p>National DRRM mechanism does not change drastically. Even if organizational changes affect OCD, new organization that takes over current OCD's roles and responsibilities agrees to continue the project.</p>
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Activities	Inputs	Important Assumption
<p>1-1 Review the current state of hazard assessment/information and identify challenges.</p> <p>1-2 Review the current state of risk assessment/information and identify challenges.</p> <p>1-3 Consider risk assessment methods so that disaster-related officials can understand local disaster risks and realize disaster risk reduction through countermeasures.</p> <p>1-4 Set selection criteria and select LGUs in the pilot regions.</p> <p>1-5 Support the review of risk information in the pilot areas based on the existing hazard/risk assessment by using the risk assessment methods considered in 1-3.</p> <p>1-6 Develop draft guidelines for reviewing hazard/risk information.</p> <p>1-7 Based on the results of 4-4, revise the guidelines developed in 1-6.</p>	<p><b>The Japanese Side</b></p> <p>1 Dispatch of Japanese Experts (Team Leader/DRRM Governance, Disaster Risk Assessment, DRRM Planning, DRRM Information, DRRM Training Program/Capacity Development)</p> <p>2 Training for Counterpart Personnel in Japan</p> <p>3 Local cost for the activity of Japanese Experts</p>	<p><b>The Philippine Side</b></p> <p>1 Allocation of Counterpart Personnel</p> <p>2 Office space for Japanese experts</p> <p>3 Local cost (regional/local training that are not covered by JICA support)</p>
		<p>Large-scale disasters that significantly delay the implementation of activities do not occur.</p> <p>Drastic organizational change that significantly affect the implementation of activities do not occur.</p> <p>LDRRMCs of the pilot LGUs agree to participate in the project activities.</p>

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2-1 Review the current state of RDRRMPs/LDRRMPs and identify challenges.

2-2 Consider the options of disaster risk reduction measures to reduce human casualties and economic losses based on disaster risk information that should be implemented at each level of region, province, city and municipality.

2-3 Support the formulation of RDRRMPs/LDRRMPs in the pilot areas based on the risk assessment conducted in 1-5.

2-4 Review the related local plans such as CDP, CLUP and LCCAP, and support adjustment of RDRRMPs/LDRRMPs in the pilot areas.

2-5 Develop draft guidelines for the formulation and revision of RDRRMPs/LDRRMPs.

2-6 Based on the results of 4-4, revise the guidelines developed in 2-5.

<b>Pre-Conditions</b>
<p>Qualified and enough number of counterpart personnel are assigned.</p> <p>RDRRMCs of the pilot regions agree to participate in the project activities.</p>



- 3-1 Review the current state of OCD's information management on RDRMPs/LDRMPs and identify challenges.
- 3-2 Consider OCD's information management, monitoring and evaluation system and methods for the formulation, revision and implementation of RDRMPs/LDRMPs.
- 3-3 Develop draft guidelines and monitoring and evaluation structure in order to implement the system considered in 3-2.
- 3-4 Conduct a workshop for all the OCD regional offices on the draft guidelines and monitoring and evaluation structure developed in 3-3.
- 3-5 Conduct activities in the pilot area based on the draft guidelines and monitoring and evaluation structure developed in 3-3.
- 3-6 Based on the results of 3-4 and 4-4, revise the guidelines and monitoring and evaluation structure developed in 3-3.

<Issues and countermeasures>

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4-1 Review the current state of DRRM training including construction of the NDRRM Training Institute and identify challenges.

4-2 Consider the draft training structure for regions and LGUs.

4-3 Based on the guidelines developed in 1-6, 2-5 and 3-3, develop draft training programs and modules for regions and LGUs.

4-4 Conduct a workshop for all the OCD regional offices on the draft training programs and modules.

4-5 Conduct training in the pilot areas based on the draft structures for training, monitoring and evaluation developed in 3-3 and 4-2 and the draft training programs and modules.

4-6 Based on the results of 4-4, revise the training structure developed in 4-2 and the training program and modules developed in 4-3.

4-7 Develop the training implementation plan (including timeline, budget, training of trainers, etc.) in order to replicate the project outcomes and conduct DRRM training for regions and LGUs in the Philippines.

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**Tentative Plan of Operation**

Version 0  
Dated December 13, 2017

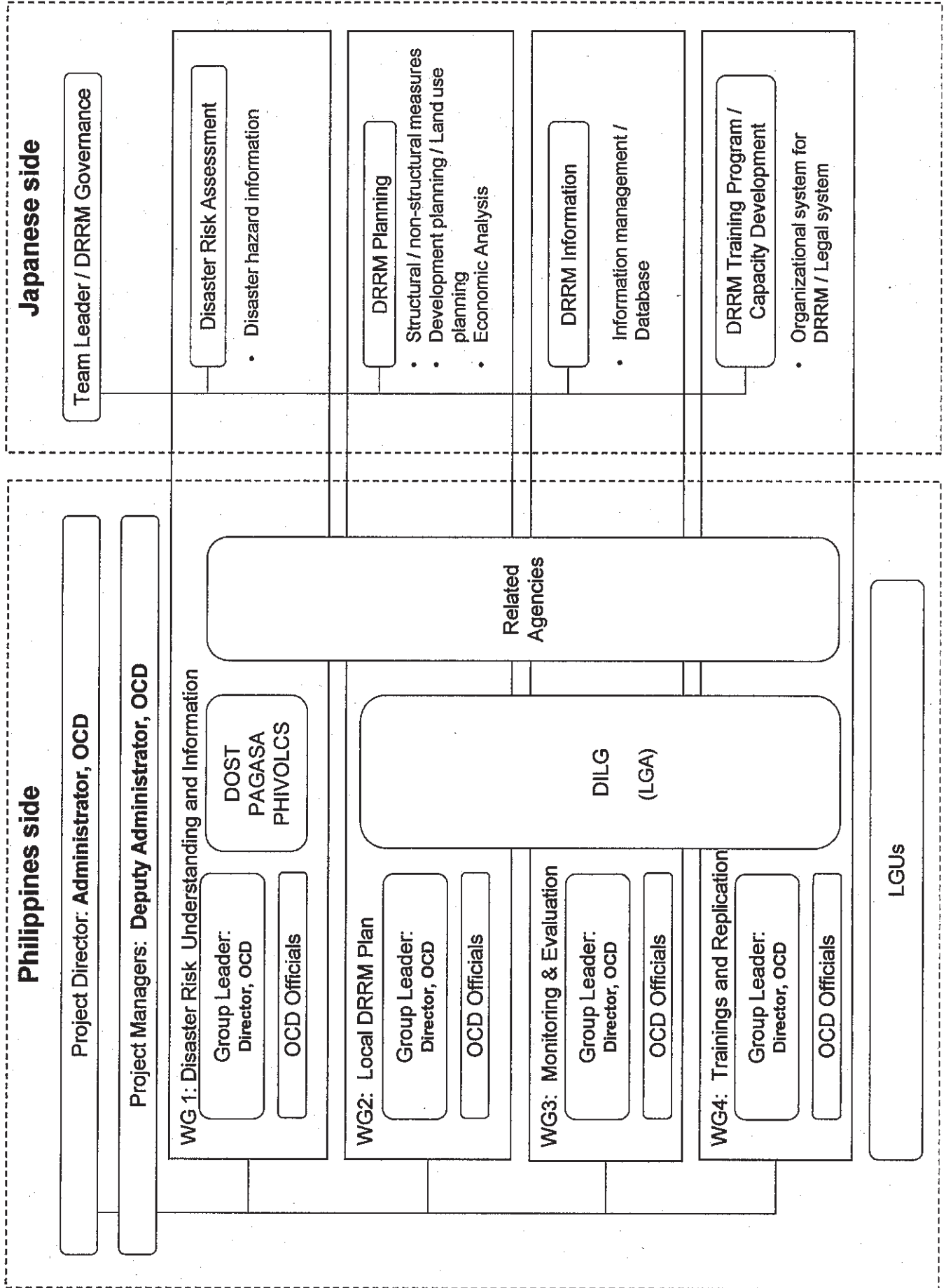
			Project Title: Disaster Risk Reduction and Management Capacity Enhancement Project Phase II												Monitoring											
Activities			1st Year				2nd Year				3rd Year				4th Year				5th Year				Responsible Organization	Issue & Countermeasures		
Sub-Activities			I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV			Achievements	
<b>Output 1:</b>																										
	1-1	Review the current state of hazard assessment/information and identify challenges.	Plan	Actual																						
	1-2	Review the current state of risk assessment/information and identify challenges.	Plan	Actual																						
	1-3	Consider risk assessment methods so that disaster-related officials can understand local disaster risks and realize disaster risk reduction through countermeasures.	Plan	Actual																						
	1-4	Set selection criteria and select LGUs in the pilot regions.	Plan	Actual																						
	1-5	Support the review of risk information in the pilot areas based on the existing hazard/risk assessment by using the risk assessment methods considered in 1-3.	Plan	Actual																						
	1-6	Develop draft guidelines for reviewing hazard/risk information.	Plan	Actual																						
	1-7	Based on the results of 4-4, revise the guidelines developed in 1-6.	Plan	Actual																						
<b>Output 2:</b>																										
	2-1	Review the current state of RDRRMPs/LDRRMPs and identify challenges.	Plan	Actual																						
	2-2	Consider the options of disaster risk reduction measures to reduce human casualties and economic losses based on disaster risk information that should be implemented at each level of region, province, city and municipality.	Plan	Actual																						
	2-3	Support the formulation of RDRRMPs/LDRRMPs in the pilot areas based on the risk assessment conducted in 1-5.	Plan	Actual																						
	2-4	Review the related local plans such as CDP, CLUP and LCCAP, and support adjustment of RDRRMPs/LDRRMPs in the pilot areas.	Plan	Actual																						
	2-5	Develop draft guidelines for the formulation and revision of RDRRMPs/LDRRMPs.	Plan	Actual																						
	2-6	Based on the results of 4-4, revise the guidelines developed in 2-5.	Plan	Actual																						
<b>Output 3:</b>																										
	3-1	Review the current state of OCD's information management on RDRRMPs/LDRRMPs and identify challenges.	Plan	Actual																						
	3-2	Consider OCD's information management, monitoring and evaluation system and methods for the formulation, revision and implementation of RDRRMPs/LDRRMPs.	Plan	Actual																						

	Plan	Actual	Timeline												Remarks	Issue	Solution				
			1st Year			2nd Year			3rd Year			4th Year						5th Year			
	Plan	Actual	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV			
3-3 Develop draft guidelines and monitoring and evaluation structure in order to implement the system considered in 3-2.	Plan	Actual																			
3-4 Conduct a workshop for all the OCD regional offices on the draft guidelines and monitoring and evaluation structure developed in 3-3.	Plan	Actual																			
3-5 Conduct activities in the pilot area based on the draft guidelines and monitoring and evaluation structure developed in 3-3.	Plan	Actual																			
3-6 Based on the results of 3-4 and 4-4, revise the guidelines and monitoring and evaluation structure developed in 3-3.	Plan	Actual																			
<b>Output 4:</b>																					
4-1 Review the current state of DRRM training including construction of the NDRRM Training Institute and identify challenges.	Plan	Actual																			
4-2 Consider the draft training structure for regions and LGUs.	Plan	Actual																			
4-3 Based on the guidelines developed in 1-6, 2-5 and 3-3, develop draft training programs and modules for regions and LGUs.	Plan	Actual																			
4-4 Conduct a workshop for all the OCD regional offices on the draft training programs and modules developed in 4-3.	Plan	Actual																			
4-5 Conduct training in the pilot areas based on the draft structures for training, monitoring and evaluation developed in 3-3 and 4-2 and the draft training programs and modules.	Plan	Actual																			
4-6 Based on the results of 4-4, revise the training structure developed in 4-2 and the training program and modules developed in 4-3.	Plan	Actual																			
4-7 Develop the training implementation plan (including timeline, budget, training of trainers, etc.) in order to replicate the project outcomes and conduct DRRM training for regions and LGUs in the Philippines.	Plan	Actual																			
<b>Duration / Phasing</b>																					
<b>Monitoring Plan</b>	Plan	Actual																			
Monitoring	Plan	Actual																			
Joint Coordinating Committee	Plan	Actual																			
Set-up the Detailed Plan of Operation	Plan	Actual																			
Submission of Monitoring Sheet	Plan	Actual																			
Monitoring Mission from Japan	Plan	Actual																			
<b>Reports/Documents</b>	Plan	Actual																			
Progress Report	Plan	Actual																			
Project Completion Report	Plan	Actual																			
Public Relations	Plan	Actual																			

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# Implementation Structure



**List of Proposed Members of Joint Coordination Committee (JCC)**

1. **Chairperson:** Administrator, OCD
  
2. **Members:**
  - (1) Deputy Administrator, OCD
  - (2) Leader of WG 1:
  - (3) Leader of WG 2:
  - (4) Leader of WG 3:
  - (5) Leader of WG 4:
  - (6) Regional Director s where selected LGUs are located, OCD
  - (7) Representative/s from Department of Public Works and Highways (DPWH)
  - (8) Representative/s from Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
  - (9) Representative/s from Philippine Institute of Volcanology and Seismology (PHIVOLCS)
  - (10) Representative/s from Department of the Interior and Local Government (DILG)
  - (11) Representative/s from Department of Social Welfare and Development (DSWD)
  - (12) Representative/s from Department of National Economic Development Agency (NEDA)
  - (13) JICA Experts
  - (14) Representative/s from JICA Philippines Office
  - (15) Any other personnel appointed by OCD and /or JICA if required
  
3. **Observers:**
  - (1) Representatives from LGUs which are selected
  - (2) Representative/s from JICA Headquarter
  - (3) Embassy of Japan in the Philippines
  - (4) Any other personnel appointed by OCD and /or JICA if required

## Selection Criteria of Pilot Regions

Criteria	Luzon			Visaya			Mindanao		
1. Size of Population		IV-A, NCR		VI, VII		XI, X			
2. Scale of Economy		NCR, IV-A		VII, VI		XI, X			
3. Scale of Damage by Natural Disaster		NCR, IV-A		VII, VI		XI, X			
4. Access		A		B		B			
5. Security		A		A		—			

1: Rank 1 and 2 of total population in the region (Census in 2015)

2: Rank 1 and 2 of Gross Domestic Regional Products (2016, PSA)

3: Rank 1 and 2 of disaster damages per unit area in the region  
(accumulation from 2005 to 2014 excluding Yolanda disaster )

4: By car (A) and by flight (B) from Manila

5: No restriction of activities by JICA regulation (A)

**Appendix 3**

**TO CR of JICA MADAGASCAR OFFICE**

**Project Monitoring Sheet**

**Project Title : Project for Enhancing Meteorological Observation, Weather Forecasting and Warning Capabilities**

**Version of the Sheet: Ver.●● (Term: Month, Year - Month, Year)**

**Name:** \_\_\_\_\_

**Title: Project Director** \_\_\_\_\_

**Name:** \_\_\_\_\_

**Title: Chief Advisor** \_\_\_\_\_

**Submission Date:** \_\_\_\_\_

**I. Summary**

**1 Progress**

1-1 Progress of Inputs

1-2 Progress of Activities

1-3 Achievement of Output

1-4 Achievement of the Project Purpose

1-5 Changes of Risks and Actions for Mitigation

1-6 Progress of Actions undertaken by JICA

1-7 Progress of Actions undertaken by Gov. of Mauritius

1-8 Progress of Environmental and Social Considerations (if applicable)

1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)

1-10 Other remarkable/considerable issues related/affect to the project (such as other JICA's projects, activities of counterparts, other donors, private sectors, NGOs etc.)

**2 Delay of Work Schedule and/or Problems (if any)**

2-1 Detail

2-2 Cause

2-3 Action to be taken

2-4 Roles of Responsible Persons/Organization (JICA, Gov. of Ma,etc.)

**3 Modification of the Project Implementation Plan**

3-1 PO



**3-2 Other modifications on detailed implementation plan**

*(Remarks: The amendment of R/D and PDM (title of the project, duration, project site(s), target group(s), implementation structure, overall goal, project purpose, outputs, activities, and input) should be authorized by JICA HDQs. If the project team deems it necessary to modify any part of R/D and PDM, the team may propose the draft.)*

**4 Preparation of Gov. of Mauritius toward after completion of the Project**

**II. Project Monitoring Sheet I & II** *as Attached*

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**Project Monitoring Sheet I (Revision of Project Design Matrix)**

**Project Title:** Project for Enhancing Meteorological Observation, Weather Forecasting and Warning Capabilities

**Implementing Agency:** Mauritius Meteorological Services (MMS)

**Target Group:** MMS Staffs

**Period of Project:** 36 months

**Project Site:** MMS Headquarter and Observation sites

**Model Site:** Headquarter and Observation sites

**Version**

**Dated** ●●,●●,●●

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Overall Goal					
Project Purpose					
Outputs					

Activities	Inputs		Important Assumption
	The Japanese Side	The Cuban Side	
			Pre-Conditions
			<Issues and

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**MINUTES OF MEETINGS  
BETWEEN  
JAPAN INTERNATIONAL COOPERATION AGENCY  
AND  
OFFICE OF CIVIL DEFENSE,  
DEPARTMENT OF NATIONAL DEFENSE  
FOR AMENDMENT OF THE RECORD OF DISCUSSIONS  
ON  
THE DISASTER RISK REDUCTION AND MANAGEMENT CAPACITY ENHANCEMENT  
PROJECT (Phase II)  
IN THE REPUBLIC OF THE PHILIPPINES**

The Japan International Cooperation Agency (hereinafter referred to as "JICA") and the Office of Civil Defense, Department of National Defense hereby agree that the Record of Discussions on The Disaster Risk Reduction and Management Capacity Enhancement Project (Phase II) signed on August 6<sup>th</sup>, 2019 will be amended as follows;

1. Period of Project

Before	Amended Version
2019-2024 (60 months)	October 2019 - May 2025 (68 months)
Reason: On-site activities are suspended from March 2020 due to COVID-19 situation, and the overall schedule of the project is delayed about 8 months.	

2. Pilot Area

Before	Amended Version
Pilot regions: Region IV-A and Region VII Pilot LGUs: Pilot LGUs in the pilot regions will be selected in 1-4.	Pilot regions: Region IV-A and Region VII Pilot LGUs: Davao City and Pilot LGUs in the pilot regions (Pilot LGUs in the pilot regions will be selected in 1-4.)
Reason: Project for Master Plan and Feasibility Study on Flood Control and Drainage in Davao City is on-going. It is considered more practical to support the development of Davao City DRRM Plan as a good example of LDRRMP to reduce the disaster risks.	

3. Project Manager

Before	Amended Version
Deputy Administrator, OCD	Director of PDPS, OCD
Reason: The technical knowledge as well as the management capacity is necessary for the project manager to implement and manage the project. Director, PDPS of OCD is considered as the right person as the project manager rather than CDDA.	

4. Leader of WG

Before	Amended Version
Directors of OCD	Representative of PDPS / CBTS, OCD

Reason: PDPS and CBTS are the divisions highly related to the project activities. The chief level officers, PDPS and CBTS of OCD are more practical and effective for implementing the project activities as the leaders of WGs than the directors from other divisions.

5. List of related organizations and list of Japanese experts

Based on the result of the base-line survey, the list of related organizations of the Philippines side and the list of Japanese experts, and the JCC member list are amended as shown in the Annex2 and Annex3.

6. Wording

Before	Amended Version
Guideline	Guidebook
Reason: The expected output in this project is a manual or a text book to be used for risk assessment, regional/local DRRM planning and their monitoring. On the other hand, the word, "Guideline" in PDM, is defined as a rules and regulations to be issued and circulated legally. Therefore, the word is corrected. "Guidebook" will be developed by OCD.	

This amendment will become effective as of November 16, 2021.

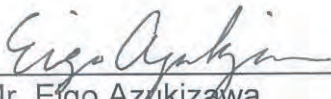
Annex 1 : Record of Discussions (signed on August 6, 2019)

Annex 2 : Implementation Structure

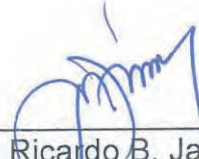
Annex 3 : List of JCC Members

Annex 4 : Project Design Matrix (Ver.2)

Manila, November 16, 2021



Mr. Eigo Azukizawa  
Chief Representative,  
JICA Philippines Office



Usec. Ricardo B. Jalad  
Administrator, Office of Civil Defense &  
Executive Director, National Disaster Risk  
Reduction and Management Council, the  
Republic of the Philippines

RECORD OF DISCUSSIONS  
FOR  
DISASTER RISK REDUCTION AND MANAGEMENT CAPACITY  
ENHANCEMENT PROJECT PHASE II  
AGREED UPON BETWEEN  
THE OFFICE OF CIVIL DEFENSE  
OF  
THE REPUBLIC OF THE PHILIPPINES  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY

Dated AUGUST 6, 2019

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- Annex 1 Main Points Discussed
- Annex 2 Project Design Matrix (PDM)
- Annex 3 Plan of Operation (PO)
- Annex 4 Implementation Structure
- Annex 5 List of Proposed Members of Joint Coordinating Committee

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Project Design Matrix

Project Title: Disaster Risk Reduction and Management Capacity Enhancement Project Phase II

Implementing Agency: Office of Civil Defense

Target Group: OCD (Headquarters and Regions) and local disaster-related officials centered upon RDRRMC and LDRRMC in the pilot areas

Period of Project: From 2019 to 2024

Project Site: OCD Headquarters

Pilot regions: Region IV-A and Region VII

Pilot LGUs: Pilot LGUs in the pilot regions will be selected in 1-4.

Version 0

Dated December 13, 2017

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
<b>Overall Goal</b> The project outcome is replicated in the Philippines for the purpose of reducing disaster human casualties and economic losses under NDRRMC's initiative.	1 Based on the indicators for Output 1 and Output 2, regions and LGUs formulate, implement, and monitor RDRRMPs/LDRRMPs.  2 Based on the indicators for Output 3, information management, OCD implements information management, monitoring and evaluation of RDRRMPs/LDRRMPs.  3 Based on the indicators for Output 4, training for regions and LGUs is implemented.	1 OCD Annual Report, RDRRMPs/LDRRMPs, Questionnaires for OCD and RDRRMCs, Interviews with OCD and RDRRMCs  2 OCD Annual Report, stored information, stored monitoring and evaluation documents, Questionnaires for OCD, related agencies and RDRRMCs, interviews with OCD, related agencies and RDRRMCs  3 OCD Annual Report, Questionnaires for OCD and RDRRMCs, Interviews with OCD and RDRRMCs			
<b>Project Purpose</b> Planning, implementation and monitoring system of RDRRMPs/LDRRMPs is developed for the purpose of reducing disaster human casualties and economic losses with the necessary technical support by National DRRM system centered upon NDRRMC.	1 OCD is ready for implementing its information management, monitoring and evaluation system in nationwide.  2 RDRRMCs and LDRRMCs in the pilot areas can receive necessary technical support from National DRRM system for planning, implementation and monitoring of RDRRMPs/LDRRMPs.	1 Training implementation plan developed in 4-6, quality and number of trainers, questionnaires for OCD, interviews with Japanese experts  2 Questionnaires for OCD and related agencies in the pilot areas, interviews with OCD and related agencies in the pilot areas	National DRRM policies do not change.  The project outcome (plans, guidelines, and systems developed by the project) is endorsed/approved by NDRRMC.		
<b>Outputs</b>  Output 1: Guidelines for hazard information use and risk assessment are developed so that disaster-related officials centered upon RDRRMC and LDRRMC can understand local disaster risks and realize disaster risk reduction through countermeasures.  Output 2: Guidelines for the formulation of RDRRMPs/LDRRMPs based on disaster risk information are developed for the purpose of reducing disaster human casualties and economic losses.  Output 3: OCD's information management (including global indicators such as Sendai Framework for Disaster Risk Reduction), monitoring and evaluation system on the formulation, revision and implementation of RDRRMPs/LDRRMPs is established.  Output 4: Training system is established in order to replicate the project outcome and conduct training for regions and LGUs in the Philippines.	1-1 User friendly guidelines for regional/local risk hazard information use and risk assessment are developed.  1-2 Regional/local disaster-related officials in the pilot areas realize disaster risk reduction through countermeasures.  2-1 User friendly guidelines for the formulation and revision of RDRRMPs/LDRRMPs are developed.  3-1 User friendly guidelines and feasible structure for information management, monitoring and evaluation are developed.  3-2 OCD's information management, monitoring and evaluation system and methods function in the pilot areas.  4-1 User friendly training programs and modules, and feasible structure for information management, monitoring and evaluation are developed.  4-2 OCD's training implementation plan is developed.	1-1 Guidelines, questionnaires for the users and their trainers, interviews with the users and their trainers  1-2 Questionnaires for the regional/local disaster-related officials and their trainers, interviews with OCD and Japanese experts  2-1 Guidelines, questionnaires for the users and their trainers, interviews with the users and their trainers  3-1 Guidelines, questionnaires for the users and their trainers, interviews with the users and their trainers  3-2 Questionnaires for the regional/local disaster-related officials and OCD, interview with Japanese experts  4-1 Training programs and modules, questionnaires for the users and their trainers, interviews with the users and their trainers  4-2 Training implementation plan, interviews with OCD and Japanese experts	National DRRM policies do not change.  National DRRM mechanism does not change drastically. Even if organizational changes affect OCD, new organization that takes over current OCD's roles and responsibilities agrees to continue the project.		

Activities	Inputs		Important Assumption
	The Japanese Side	The Philippine Side	
1-1 Review the current state of hazard assessment/information and identify challenges. 1-2 Review the current state of risk assessment/information and identify challenges. 1-3 Consider risk assessment methods so that disaster-related officials can understand local disaster risks and realize disaster risk reduction through countermeasures. 1-4 Set selection criteria and select LGUs in the pilot regions. 1-5 Support the review of risk information in the pilot areas based on the existing hazard/risk assessment by using the risk assessment methods considered in 1-3. 1-6 Develop draft guidelines for reviewing hazard/risk information. 1-7 Based on the results of 4-4, revise the guidelines developed in 1-6.	1 Dispatch of Japanese Experts (Team Leader/DRRM Governance, Disaster Risk Assessment, DRRM Planning, DRRM Information, DRRM Training Program/Capacity Development)  2 Training for Counterpart Personnel in Japan  3 Local cost for the activity of Japanese Experts	1 Allocation of Counterpart Personnel  2 Office space for Japanese experts  3 Local cost (regional/local training that are not covered by JICA support)	Large-scale disasters that significantly delay the implementation of activities do not occur.  Drastic organizational change that significantly affect the implementation of activities do not occur.  LDRRMCs of the pilot LGUs agree to participate in the project activities.

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Tentative Plan of Operation

Version 0  
 Detailed December 13, 2017

Project Title: Disaster Risk Reduction and Management Capacity Enhancement Project Phase II

Activities	Sub-Activities	Year	Monitoring																				Remarks	Issue	Solution
			1st Year					2nd Year					3rd Year					4th Year							
			Achievements																				Issue & Countermeasures		
Output 1:																									
1-1	Review the current state of hazard assessment/information and identify challenges.	Plan																							
		Actual																							
1-2	Review the current state of risk assessment/information and identify challenges.	Plan																							
		Actual																							
1-3	Consider risk assessment methods so that disaster-related officials can understand local disaster risks and realize disaster risk reduction through countermeasures.	Plan																							
		Actual																							
1-4	Set selection criteria and select LGUs in the pilot regions.	Plan																							
		Actual																							
1-5	Support the review of risk information in the pilot areas based on the existing hazard/risk assessment by using the risk assessment methods considered in 1-3.	Plan																							
		Actual																							
1-6	Develop draft guidelines for reviewing hazard/risk information.	Plan																							
		Actual																							
1-7	Based on the results of 4-4, review the guidelines developed in 1-6.	Plan																							
		Actual																							
Output 2:																									
2-1	Review the current state of RDRMPs/LDRMPs and identify challenges.	Plan																							
		Actual																							
2-2	Consider the options of disaster risk reduction measures to reduce human casualties and economic losses based on disaster risk information that should be implemented at each level of region, province, city and municipality.	Plan																							
		Actual																							
2-3	Support the formulation of RDRMPs/LDRMPs in the pilot areas based on the risk assessment conducted in 1-5.	Plan																							
		Actual																							
2-4	Review the related local plans such as CDP, CLUP and LCEAP, and support achievement of RDRMPs/LDRMPs in the pilot areas.	Plan																							
		Actual																							
2-5	Develop draft guidelines for the formulation and revision of RDRMPs/LDRMPs	Plan																							
		Actual																							
2-6	Based on the results of 4-4, revise the guidelines developed in 2-5.	Plan																							
		Actual																							
Output 3:																									
3-1	Review the current state of OCD's information management on RDRMPs/LDRMPs and identify challenges.	Plan																							
		Actual																							
3-2	Consider OCD's information management, monitoring and evaluation system and methods for the formulation, revision and implementation of RDRMPs/LDRMPs.	Plan																							
		Actual																							
3-3	Develop draft guidelines and monitoring and evaluation structures in order to implement the system considered in 3-2.	Plan																							
		Actual																							
3-4	Conduct a workshop for all the OCD regional offices on the draft guidelines and monitoring and evaluation structure developed in 3-3.	Plan																							
		Actual																							
3-5	Conduct activities in the pilot area based on the draft guidelines and monitoring and evaluation structure developed in 3-3.	Plan																							
		Actual																							
3-6	Based on the results of 3-4 and 4-4, revise the guidelines and monitoring and evaluation structure developed in 3-3.	Plan																							
		Actual																							
Output 4:																									
4-1	Review the current state of DRRM training including construction of the NDRRM Training Institute and identify challenges.	Plan																							
		Actual																							
4-2	Consider the draft training structure for regions and LGUs	Plan																							
		Actual																							
4-3	Based on the guidelines developed in 1-6, 2-5 and 3-1, develop draft training programs and modules for regions and LGUs.	Plan																							
		Actual																							
4-4	Conduct a workshop for all the OCD regional offices on the draft training programs and modules developed in 4-3.	Plan																							
		Actual																							
4-5	Conduct training in the pilot areas based on the draft structures for training, monitoring and evaluation developed in 3-3 and 4-2 and the draft training programs and modules.	Plan																							
		Actual																							
4-6	Based on the results of 4-4, revise the training structure developed in 4-2 and the training program and modules developed in 4-3.	Plan																							
		Actual																							
4-7	Develop the training implementation plan (including timeline, budget, training of trainers, etc.) in order to replicate the project outcomes and conduct DRRM training for regions and LGUs in the Philippines.	Plan																							
		Actual																							

Duration / Phasing	Plan	Actual																					Remarks	Issue	Solution
	Year	1st Year	2nd Year				3rd Year				4th Year				5th Year										
<b>Monitoring Plan</b>																									
Monitoring																									
Joint Coordinating Committee	Plan																								
Set-up the Detailed Plan of Operation	Plan																								
Submission of Monitoring Sheet	Plan																								
Monitoring Mission from Japan	Plan																								
Reports/Documents																									
Progress Report	Plan																								
Project Completion Report	Plan																								
Public Relations																									

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**List of Proposed Members of Joint Coordination Committee (JCC)**

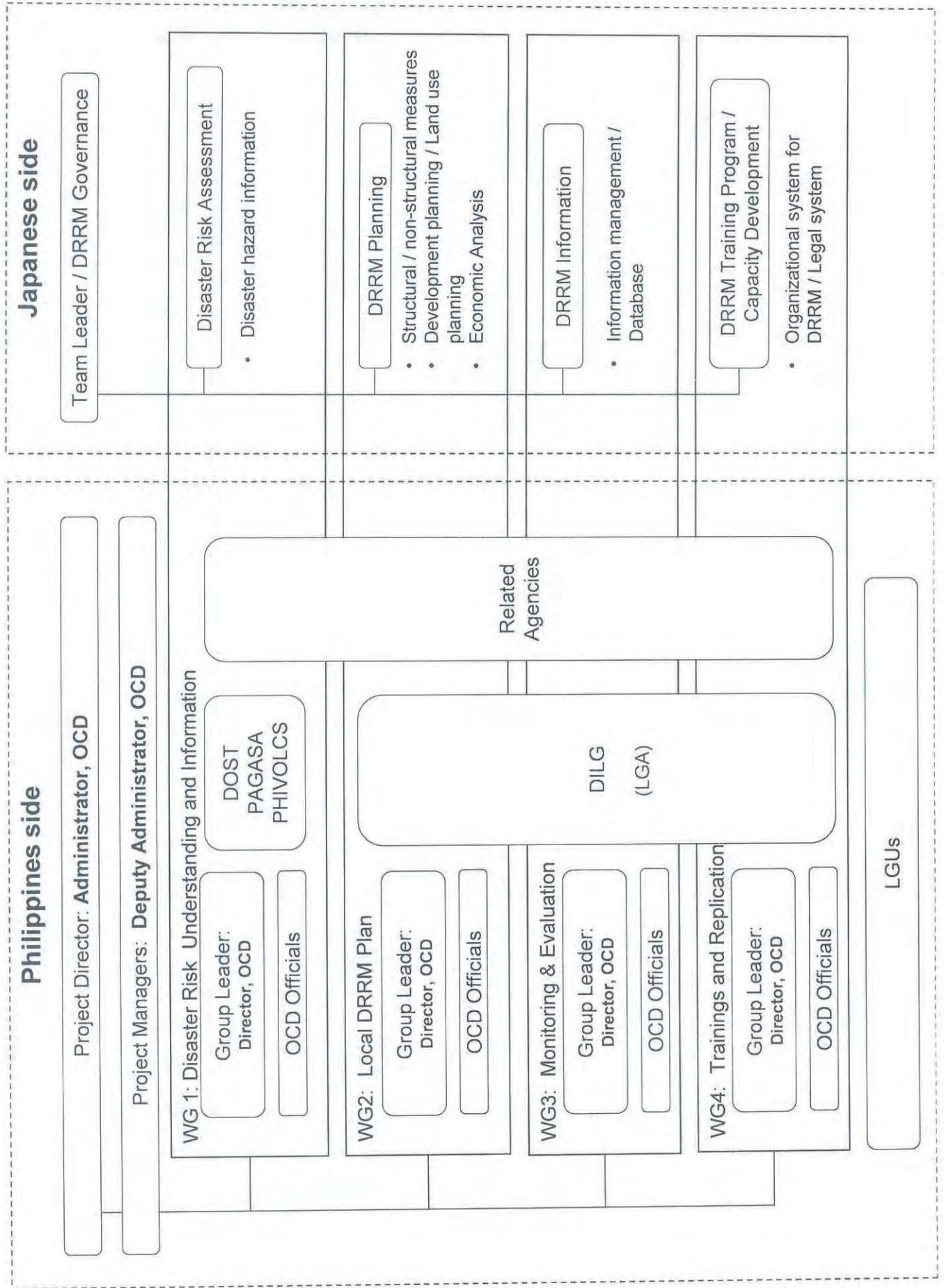
1. **Chairperson:** Administrator, OCD
  
2. **Members:**
  - (1) Deputy Administrator, OCD
  - (2) Leader of WG 1:
  - (3) Leader of WG 2:
  - (4) Leader of WG 3:
  - (5) Leader of WG 4:
  - (6) Regional Directors where selected LGUs are located, OCD
  - (7) Representative/s from Department of Public Works and Highways (DPWH)
  - (8) Representative/s from Department of Science and Technology (DOST)
  - (9) Representative/s from Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
  - (10) Representative/s from Philippine Institute of Volcanology and Seismology (PHIVOLCS)
  - (11) Representative/s from Department of the Interior and Local Government (DILG)
  - (12) Representative/s from Department of Social Welfare and Development (DSWD)
  - (13) Representative/s from Department of National Economic Development Agency (NEDA)
  - (14) Representative/s from the Mines and Geosciences Bureau (MGB)
  - (15) JICA Experts
  - (16) Representative/s from JICA Philippines Office
  - (17) Any other personnel appointed by OCD and /or JICA if required
  
3. **Observers:**
  - (1) Representatives from LGUs which are selected
  - (2) Representative/s from JICA Headquarter
  - (3) Embassy of Japan in the Philippines
  - (4) Any other personnel appointed by OCD and /or JICA if required

uw





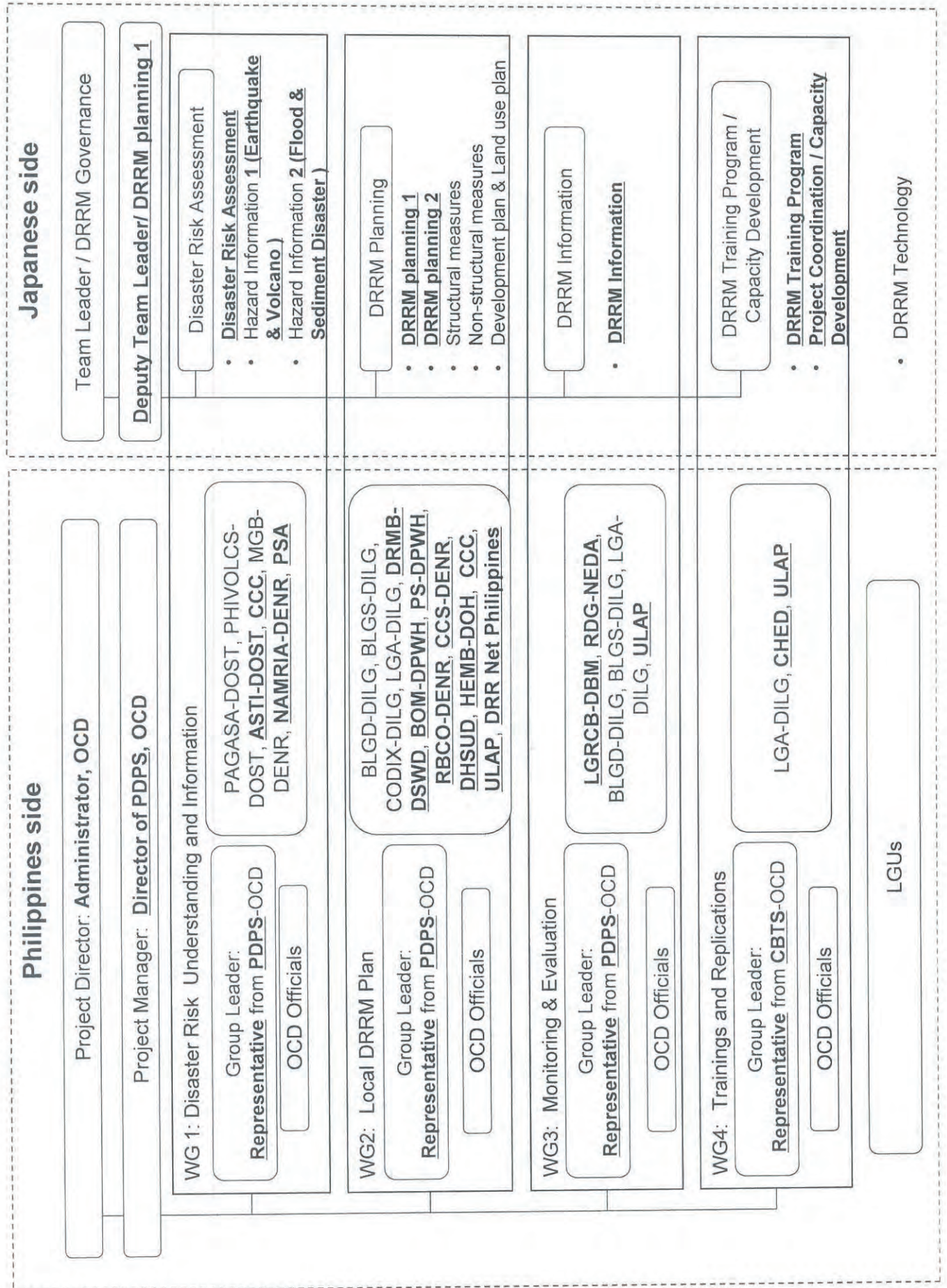
(Original) Implementation Structure



END

(Revised) Implementation Structure  
**Bold underlined text: Revised items**

Annex 2



cmf

(Original)

**List of Proposed Members of Joint Coordination Committee (JCC)**

1. **Chairperson:** Administrator, OCD
2. **Members:**
  - (1) Deputy Administrator, OCD
  - (2) Leader of WG1:
  - (3) Leader of WG2:
  - (4) Leader of WG3:
  - (5) Leader of WG4:
  - (6) Regional Directors where selected LGUs are located. OCD
  - (7) Representative/s from Department of Public Works and Highways (DPWH)
  - (8) Representative/s from Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
  - (9) Representative/s from Philippine Institute of Volcanology and Seismology (PHIVOLCS)
  - (10) Representative/s from Department of the Interior and Local Government (DILG)
  - (11) Representative/s from Department of Social Welfare and Development (DSWD)
  - (12) Representative/s from Department of National Economic Development Agency (NEDA)
  - (13) JICA Experts
  - (14) Representative/s from JICA Philippines Office
  - (15) Any other personnel appointed by OCD and /or JICA if required
3. **Observers:**
  - (1) Representatives from LGUs which are selected
  - (2) Representative/s from JICA Headquarter
  - (3) Embassy of Japan in the Philippines
  - (4) Any other personnel appointed by OCD and /or JICA if required

(Revised / Bold underlined text: Revised Items)  
List of Proposed Members of Joint Coordination Committee (JCC)

1. **Chairperson**

Project Director: Administrator of OCD

Project Manager: Director of PDPS-OCD

2. **JCC Members:**

- (1) Project Team Members\*
- (2) Representative/s from Department of Public Works and Highways (DPWH)
- (3) Representative/s from Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
- (4) Representative/s from Philippine Institute of Volcanology and Seismology (PHIVOLCS)
- (5) Representative/s from Department of the Interior and Local Government (DILG)
- (6) Representative/s from Department of Social Welfare and Development (DSWD)
- (7) Representative/s from Department of National Economic Development Agency (NEDA)
- (8) Representative/s from JICA Headquarters and from JICA Philippines
- (9) Any other personnel appointed by OCD and /or JICA if required ;  
including representatives from Working Group Members

**\*Project Team Members:**

- (1) Leader of WG1: Representative from PDPS-OCD
- (2) Leader of WG2: Representative from PDPS-OCD
- (3) Leader of WG3: Representative from PDPS-OCD
- (4) Leader of WG4: Representative from CBTS-OCD
- (5) Regional Directors and Officers of OCD-R4A and R7
- (6) JICA Experts

3. **Observers:**

- (5) Representatives from LGUs which are selected
- (6) Embassy of Japan in the Philippines
- (7) Any other personnel appointed by OCD and /or JICA if required;  
including representatives from Working Group Members

## Project Design Matrix (1/2)

Project Title: Disaster Risk Reduction and Management Capacity Enhancement Project Phase II

Implementing Agency: Office of Civil Defense

Target Group: OCD (Headquarters and Regions), and local disaster-related officials centered upon RDRRMC and LDRRMC in the pilot areas

Period of Project: From October 2019 to May 2025 (68 months)

Project Site: OCD Headquarters Pilot regions: Region IV-A and Region VII

Pilot LGUs: Davao City and Pilot LGUs in the pilot regions (Pilot LGUs in the pilot regions will be selected in 1-4.)

Version 2

Dated August \*\*, 2021

Overall Goal	Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
The project outcome is replicated in the Philippines for the purpose of reducing disaster human casualties and economic losses under NDRRMC's initiative.		<p>1 Based on the indicators for Output 1 and Output 2, regions and LGUs formulate, implement, and monitor RDRRMPs/LDRRMPs.</p> <p>2 Based on the indicators for Output 3, OCD implements information management, monitoring and evaluation of RDRRMPs/LDRRMPs.</p> <p>3 Based on the indicators for Output 4, training for regions and LGUs is implemented.</p>	<p>1 OCD Annual Report, RDRRMPs/LDRRMPs, Questionnaires for OCD and RDRRMCs, Interviews with OCD and RDRRMCs</p> <p>2 OCD Annual Report, stored information, stored monitoring and evaluation documents, Questionnaires for OCD, related agencies and RDRRMCs, Interviews with OCD, related agencies and RDRRMCs</p> <p>3 OCD Annual Report, Questionnaires for OCD and RDRRMCs, Interviews with OCD and RDRRMCs</p>	National DRRM policies do not change.		
Project Purpose Planning, implementation and monitoring system of RDRRMPs/LDRRMPs is developed for the purpose of reducing disaster human casualties and economic losses with the necessary technical support by National DRRM system centered upon NDRRMC.		<p>1 OCD is ready for implementing its information management, monitoring and evaluation system nationwide.</p> <p>2 RDRRMCs and LDRRMCs in the pilot areas can receive necessary technical support from National DRRM system for planning, implementation and monitoring of RDRRMPs/LDRRMPs.</p>	<p>1 Training implementation plan developed in 4-6, quality and number of trainers, questionnaires for OCD, interviews with Japanese experts</p> <p>2 Questionnaires for OCD and related agencies in the pilot areas, interviews with OCD and related agencies in the pilot areas</p>	National DRRM policies do not change. The project outcome (plans, <b>guidebooks</b> , and systems developed by the project) is endorsed/approved by NDRRMC.		
Outputs Output 1 : <b>Guidebooks</b> for hazard information use and risk assessment are developed so that disaster-related officials centered upon RDRRMC and LDRRMC can understand local disaster risks and realize disaster risk reduction through countermeasures. Output 2 : <b>Guidebooks</b> for the formulation of RDRRMPs/LDRRMPs based on disaster risk information are developed for the purpose of reducing disaster human casualties and economic losses. Output 3 : OCD's information management (including global indicators such as Sendai Framework for Disaster Risk Reduction), monitoring and evaluation system on the formulation, revision and implementation of RDRRMPs/LDRRMPs is established. Output 4 : Training system is established in order to replicate the project outcome and conduct training for regions and LGUs in the Philippines.		<p>1-1 User friendly <b>guidebooks</b> for regional/local risk hazard information use and risk assessment are developed.</p> <p>1-2 Regional/local disaster-related officials in the pilot areas realize disaster risk reduction through countermeasures.</p> <p>2-1 User friendly <b>guidebooks</b> for the formulation and revision of RDRRMPs/LDRRMPs are developed.</p> <p>3-1 User friendly <b>guidebooks</b> and feasible structure for information management, monitoring and evaluation are developed.</p> <p>3-2 OCD's information management, monitoring and evaluation system and methods function in the pilot areas.</p> <p>4-1 User friendly training programs and modules, and feasible structure for information management, monitoring and evaluation are developed.</p> <p>4-2 OCD's training implementation plan is developed.</p>	<p>1-1 <b>Guidebooks</b>, questionnaires for the users and their trainers, interviews with the users and their trainers</p> <p>1-2 Questionnaires for the regional/local disaster-related officials and their trainers, interviews with OCD and Japanese experts</p> <p>2-1 <b>Guidebooks</b>, questionnaires for the users and their trainers, interviews with the users and their trainers</p> <p>3-1 <b>Guidebooks</b>, questionnaires for the users and their trainers, interviews with the users and their trainers</p> <p>3-2 Questionnaires for the regional/local disaster-related officials and OCD, interview with Japanese experts</p> <p>4-1 Training programs and module development, questionnaires for the users and their trainers, interviews with the users and their trainers</p> <p>4-2 Training implementation plan, interviews with OCD and Japanese experts</p>	National DRRM policies do not change. National DRRM mechanism does not change drastically. Even if organizational changes affect OCD, any new organization that takes over the current OCD's roles and responsibilities agrees to continue the project.		


## Project Design Matrix (2/2)

Activities	Inputs	Important Assumption
<p>1-1 Review the current state of hazard assessment/information and identify challenges.</p> <p>1-2 Review the current state of risk assessment/information and identify challenges.</p> <p>1-3 Consider risk assessment methods so that disaster-related officials can understand local disaster risks and realize disaster risk reduction through countermeasures.</p> <p>1-4 Set selection criteria and select LGUs in the pilot regions.</p> <p>1-5 Support the review of risk information in the pilot areas based on the existing hazard/risk assessment by using the risk assessment methods considered in 1-3.</p> <p>1-6 Develop draft <b>guidebooks</b> for reviewing hazard/risk information.</p> <p>1-7 Based on the results of 4-5, revise the <b>guidebooks</b> developed in 1-6.</p> <p>2-1 Review the current state of RDRRMPs/LDRRMPs and identify challenges.</p> <p>2-2 Consider the options of disaster risk reduction measures to reduce human casualties and economic losses based on disaster risk information that should be implemented at each level of region, province, city and municipality.</p> <p>2-3 Support the formulation of RDRRMPs/LDRRMPs in the pilot areas based on the risk assessment conducted in 1-5.</p> <p>2-4 Review the related local plans such as CDP, CLUP and LCCAP, and support adjustment of RDRRMPs/LDRRMPs in the pilot areas.</p> <p>2-5 Develop draft <b>guidebooks</b> for the formulation and revision of RDRRMPs/LDRRMPs.</p> <p>2-6 Based on the results of 4-5, revise the <b>guidebooks</b> developed in 2-5.</p> <p>3-1 Review the current state of OCD's information management on RDRRMPs/LDRRMPs and identify challenges.</p> <p>3-2 Consider OCD's information management, monitoring and evaluation system and methods for the formulation, revision and implementation of RDRRMPs/LDRRMPs.</p> <p>3-3 Develop draft <b>guidebooks</b> and monitoring and evaluation structure in order to implement the system considered in 3-2.</p> <p>3-4 Conduct a workshop for all the OCD regional offices on the draft <b>guidebooks</b> and monitoring and evaluation structure developed in 3-3.</p> <p>3-5 Conduct activities in the pilot area based on the draft <b>guidebooks</b> and monitoring and evaluation structure developed in 3-3.</p> <p>3-6 Based on the results of 3-5 and 4-5, revise the <b>guidebooks</b> and monitoring and evaluation structure developed in 3-3.</p> <p>4-1 Review the current state of DRRM training including construction of the NDRRM Training Institute and identify challenges.</p> <p>4-2 Consider the draft training structure for regions and LGUs.</p> <p>4-3 Based on the <b>guidebooks</b> developed in 1-6, 2-5 and 3-3, develop draft training programs and modules for regions and LGUs.</p> <p>4-4 Conduct a workshop for all the OCD regional offices on the draft training programs and modules developed in 4-3.</p> <p>4-5 Conduct training in the pilot areas based on the draft structures for training, monitoring and evaluation developed in 3-3 and 4-2 and the draft training programs and modules developed in 4-3.</p> <p>4-6 Based on the results of 4-5, revise the training structure developed in 4-2 and the training program and modules developed in 4-3.</p> <p>4-7 Develop the training implementation plan (including schedule, budget, training of trainers, etc.) in order to replicate the project outcomes and conduct DRRM training for regions and LGUs in the Philippines.</p>	<p>The Japanese Side</p> <ol style="list-style-type: none"> <li>1. Dispatch of Japanese Experts (Team Leader/DRRM Governance, Disaster Risk Assessment, DRRM Planning, DRRM Information, DRRM Training Program/Capacity Development)</li> <li>2. Training for Counterpart Personnel in Japan</li> <li>3. Local cost for the activity of Japanese Experts</li> </ol>	<p>The Philippine Side</p> <ol style="list-style-type: none"> <li>1. Allocation of Counterpart Personnel</li> <li>2. Office space for Japanese experts</li> <li>3. Local cost (regional/local training that are not covered by JICA support)</li> </ol> <p>Pre-Conditions</p> <p>Qualified and sufficient number of counterpart personnel are assigned.</p> <p>RDRRMPs of the pilot regions agree to participate in the project activities.</p> <p>&lt;Issues and countermeasures&gt;</p>

CND

Minutes of Meeting  
on the  
First Joint Coordination Committee Meeting  
of the  
Disaster Risk Reduction and Management  
Capacity Enhancement Project (Phase II)  
in the Republic of the Philippines  
between the  
Office of Civil Defense,  
Department of National Defense  
and the  
Japan International Cooperation Agency

Manila, December 10, 2020

  
\_\_\_\_\_  
**Usec. Ricardo B. Jalad**  
Administrator, Office of Civil Defense &  
Executive Director, National Disaster  
Risk Reduction and Management  
Council, the Republic of the Philippines

\_\_\_\_\_  
**Mr. Yoshihiko Uchikura**  
Team Leader,  
The Disaster Risk Reduction and  
Management Capacity Enhancement  
Project (Phase II) in the Republic of the  
Philippines

Witness

\_\_\_\_\_  
**Ms. Ayumu Ohshima**  
Senior Representative,  
JICA Philippines Office, Japan  
International Cooperation Agency



The First Joint Coordination Committee (hereinafter called as JCC) meeting for “the Disaster Risk Reduction and Management Capacity Enhancement Project (Phase II) in the Republic of the Philippines” was held on 10 December 2020 via online conference.

The Office of Civil Defense (hereinafter called as OCD), Japan International Cooperation Agency (hereinafter called as JICA) and relevant parties of the Project joined the first JCC meeting, chaired by Dir. Tecson John S Lim, Director of the Policy Development and Planning Service of OCD. Around 60 participants from National Governmental Agencies and Civil Society Organizations attended the meeting. The list of the participants is shown in Appendix 1.

Ms. Aya Goho, Disaster Risk Reduction Team 1, Disaster Risk Reduction Group, Global Environment Department, JICA Headquarters presented JICA's efforts to enhance Disaster Risk Reduction (hereinafter called as DRR), followed by the explanation of the outline and the progress of the project by the JICA Expert Team members and the representatives of each working group of the project. The presentations of each working group are shown in Appendix 2.

The following are the salient points and/or agreements:

**1. JCC membership and implementation structure of the project**

The JICA Expert Team proposed the list of JCC members and implementation structure of the project including working group member agencies. The both sides agreed that the Project Manager has changed from Deputy Administrator of OCD to Director Lim of PDPS-OCD. The original and the proposed list of JCC members and implementation structure are shown in Appendix 3 and Appendix 4. The list of JCC members and implementation structure will be officially agreed through the approval of the amended RD.

**2. Work Plan, Project Design Matrix and Monitoring Sheet**

The JICA Expert Team showed and explained the Work Plan, Project Design Matrix and Monitoring Sheet to which the JCC members agreed on the contents of said documents. The contents of these documents could be revised according to the progress of project activities. The Project Design Matrix (Ver.1) and Monitoring Sheet (Ver.1) are shown in Appendix 5. ✓



### 3. Progress of the project

The JICA Expert Team and the representatives of each working group of the project explained the progress of the project. The JCC members agreed on the following items.

- Revised schedule and activities under the COVID-19 situation
- Selected LGUs for the stage 1 of the pilot activities
- Result of the baseline survey and next step of each output

### 4. Other discussions

- Prof. Kimio Takeya, JICA emphasized the importance of implementing DRR plans to reduce the risks with the close cooperation among NGAs and LGUs according to their roles and responsibilities for DRR. Especially, since 2020 is the end-year for the planning phase of Sendai Framework for DRR, it is fundamental to accelerate the implementation of local DRR plans.
- In the guidebook for Local DRRM Plan planning of WG2, the timeframe of the Local DRRM Plan including its review process will be guided to align with the National DRRM Plan timeframe. In addition, the submission process on the utilization of Local DRRM Fund will be explained to guide the LGUs for their planning and implementation.
- More discussions with the related agencies across the working groups were recommended as the outputs are interlinked, as well as to provide venue for exchange of existing knowledge and experiences. For example, the members for WG1 shall interact with the members for WG2 for the use of risk assessment result for planning.

End

Appendix 1	List of Participants	
Appendix 2	Presentations of each working group	
Appendix 3	List of JCC members (original and proposal)	
Appendix 4	Implementation structure with working group member agencies (original and proposal)	
Appendix 5	PDM (Ver.1) and Monitoring Sheet (Ver.1)	✓





## SUMMARY OF DISCUSSIONS (SOD)

### JICA DRRMCEP 2 2<sup>nd</sup> Joint Coordination Committee (JCC) Meeting Teleconference (via Zoom) 4 February 2022 at 10 AM

#### INTRODUCTION

The 2nd Joint Coordination Committee (JCC) Meeting of the JICA Disaster Risk Reduction and Management Capacity Enhancement Project Phase II (DRRMCEP2) was held via teleconference using the Zoom application on 4 February 2022 at 10 AM. The meeting was presided by Director Susana G. Juangco, and was attended by the designated focal persons from the selected NDRRMC member agencies, OCD Services, JICA and JICA Expert team.

1. The list of participants appears as **ANNEX 1**.

#### AGENDA ITEM 1: Opening Remarks

2. Mr. Yanagiuchi, Deputy Resident Representative of JICA Philippines office (JICA) presented opening remarks.

#### AGENDA ITEM 2: Project's updates

3. Ms. Terteen Omana (DRRMCEP2) explained the salient points of the target LDRRMP under the DRRMCEP2 Project. The presentation appears as **ANNEX 2**.
4. Ms. Kitazawa (DRRMCEP2) presented the purpose of this project revised the *overall schedule and outline of Pilot Activities Stage 1*; the presentation appears as **ANNEX 2**.

#### AGENDA ITEM 3: Selection of Stage 2's Pilot LGUs

5. Ms. Kitazawa (DRRMCEP2) presented the selection criteria and results of Stage 2's Pilot LGUs **ANNEX 2**.

#### AGENDA ITEM 4: Updates of each WG

6. Ms. Cheryl Leal (OCD) presented the overview of activities for WG1 (Disaster Risk Assessment); the presentation appears as **ANNEX 3**.
7. Ms. Ma. Cristine Lee (OCD) presented the overview of activities for WG2 (LDRRMP Formulation); the presentation appears as **ANNEX 4**.
8. Ms. Raquel de Leon (OCD) presented the overview of activities for WG3 (LDRRMP M and E); the presentation appears as **ANNEX 5**.
9. Ms. Lorelei Bendijo (OCD) presented the overview of activities for WG4 (Training and Replication); the presentation appears as **ANNEX 6**.

#### **AGENDA ITEM 5: Summary of agreements and Next Steps**

10. Ms. Cheryl Leal (OCD) summarized the achievements and next steps of each output

#### **Questions/ Clarifications**

##### **[WG1]**

11. NEDA representative, Dir. Remedios Endencia requested that the TG provide clarification on the term "damage and losses", which Dr. Leyo Bautista of PHIVOLCS provided the explanation on the term as the result of the calculated physical damage based on the use of assessment tools such as REDAS and GeoRiskPh.
12. ULAP Exe. Dir. Bernardino Sayo mentioned that the TG may also consider including the capacity of the LGUs to respond to disasters in disaster risk assessment.
13. DOH-HEMB Dr. Meredith Afuang inquired if the TG included the health-related risk assessment they have in the draft TG. Ms. Geraldine Santos (DRRMCEP 2) responded that it is not included but noted on the clarification.
14. PHIVOLCS Dr. Art Daag also mentioned that all updated hazard maps are disseminated to the LGUs and in the GeoRiskPh website.

##### **[WG2]**

15. Concerning Dr. Afuang's (DOH-HEMB) question, Ms. Cheryl Leal (OCD) also explained that the sectoral issues are also tackled in the LDRRMP through the SWOC.
16. Ms. Cristina Lee (OCD) added to Ms. Leal's explanation that references were included in the guidebook. According to Ms. Lee, a meeting with DOH, DSWD, and DILG shall be conducted to clarify which specific tools or components should be emphasized. She reiterated that the DRRM-H is considered in the LDRRMP Formulation Guidebook.

##### **[WG3]**

- None -

##### **[WG4]**

- None -

#### **SUMMARY OF AGREEMENTS**

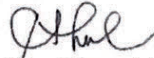
The Summary of Agreements include the following:

AGENDA	Agreements/ Recommendation	OPR
Agenda 1 – Update on the Project	The JCC was updated on the revised schedule and activities of the Project, including the pilot activities under the first stage of implementation with a focus on the case of the Municipality of Tubigon.	All
Agenda 2 – Selection of pilot LGUs	<ul style="list-style-type: none"> <li>• The Project to consider the inclusion of activities promoting high public awareness on the role of the community or household level in the implementation of the local DRRM plans.</li> <li>• For consideration in the process of LDRRMP formulation.</li> </ul>	WG 2
Agenda 3 – Updates from the Working Groups	<p><b>Working Group 1 - DRA</b></p> <ul style="list-style-type: none"> <li>• Clarify the term "damage and losses" as the result of the calculated physical damage based on the use of assessment tools such as REDAS and GeoRiskPh</li> <li>• Noted on the consideration of the capacity of the LGUs to respond to disasters in disaster risk assessment</li> <li>• Noted the inclusion of health-related risks in the DRA</li> </ul>	WG1
	<p><b>Working Group 2 - LDRRMP Form</b></p> <ul style="list-style-type: none"> <li>• Noted the inclusion of health-related risk in Local DRRM Planning</li> </ul>	WG2
Others	<ul style="list-style-type: none"> <li>• Recommended the inclusion of developing of a dashboard for easy data visualization, for decision-making for provision of necessary Intervention</li> </ul>	OCD, CHED, ULAP

#### CLOSING & ADJOURNMENT


17. Ms. Aya Goho (JICA headquarters) delivered the closing on behalf of Mr. Satoshi Nakamura, (JICA headquarters) presented concluding remarks.
18. There being no other matters, the Meeting was adjourned at 12:00 NN the same day.

Prepared by:






**Ms. Cheryl Loise T Leal**  
AC, DRGD

Recommending Approval:



**Dir. Susana G. Juangco, RN, MPH**  
D, PDPS  
Project Manager, DRRM-CEP 2

APPROVED:



**USEC. RICARDO B JALAD**  
Administrator, OCD  
Project Director, DRRM CEP 2

**Mr. Yoshihiko Uchikura**  
Team leader, DRRM-CEP2

Witnessed

**Mr. Masanari Yanagiuchi**  
Deputy Resident Representative of JICA  
Philippines



Disaster Risk Reduction and Management Capacity Enhancement Project - Phase II (DRRMCEPII)  
c/o Office of Civil Defense (OCD), Camp General Emilio Aguinaldo, Quezon City, Philippines

Appendix 1

LIST of PARTICIPANTS (First JCC meeting on December 10, 2020) ONLINE CONFERENCE

	Institution	Division	Name	Position
1.	Climate Change Commission		Mr. Arnold Grant S Belver	Development Management Officer IV
2.	DBM-LGRCB		Mr Ryan Joseph Dagdag	Officer-in-Charge - Chief Budget and Management Specialist
3.			Ms. Kathleen Pilapil	Budget and Management Specialist I
4.	DENR-MGB	Geo Hazard Division	Mr Alvin Fernando	
5.	DENR-NAMRIA		Ms. Ma. Paz Montiano	Information Technology Officer II
6.			Mr. AlJericco Alcala	Information Technology Officer II
7.	DENR-RBCO		Ms. Apple Marie Vitug	Project Monitoring and Evaluation Officer
8.	DILG-BLGD		Ms. Angela Monica Salud B. Mamuyac	Asst. Division Chief
9.	DILG-BLGS		Ms. Melany Quinton	Asst. Division Chief
10.			Mr. Elmer Tomagan	Local Government Operations Officer IV
11.			Ms. Marie Louise Valbuena	Local Government Operations Officer III
12.	DILG-CODIX		Dir. Edgar Allan Tabell	Chief
13.	DILG-LGA		Ms. Alice Bejer	Project Officer II
14.			Mr. Elmo Dimaano	
15.	DOH-HEMB		Ms. Janice	
16.	DOST-ASTI	Office of the Director	Alvin Retamar	Officer-in-Charge
17.			Roel De le Cruz	Senior Science Research Specialist
18.	DOST-PAGASA		Rosalie Pagnlayan	Weather Specialist II
19.	DOST-PHIVOLCS		Usec. Renato Solidum	Under Secretary
20.	DPWH- Planning Service		Usec. Maria Catalina E. Cabral	Under Secretary
21.	DRR Network Philippines	Center for Disaster Preparedness Foundation Inc.	Ms. Amor J. Tan Singco	Policy Advocacy
22.	DHSUD		Ms. Antonette McStay	Office of the Secretary
23.			Ms. Antonette Manalo	
24.	DSWD-DRMB		ASec. Rudy Encabo	Assistant Secretary
25.	NEDA	Regional Development Group	Dir. Remedios Endencia	Director, Regional Development Staff
26.			Ms Hazel De Chavez	Sr. Economic Development Specialist
27.			Ms Claire Balde	Chief Economic Development Specialist
28.	NA		Ms. Kathryn Kissy Sumaylo-Pearlman	
29.	OCD-Region IVA	Plans and Programs	Mr. Kelvin John Reyes	OCD Officer
30.	OCD-Region VII		Dir. Marlou Salazar	Regional Director



**Disaster Risk Reduction and Management Capacity Enhancement Project - Phase II (DRRMCEPII)**  
 c/o Office of Civil Defense (OCD), Camp General Emilio Aguinaldo, Quezon City, Philippines

	Institution	Division	Name	Position
31.		Plans and Programs	Ms. Janice Padgadag	Civil Defense Officer II
32.	OCD- Central Office	PDPS	Dir. Tecson John Lim	Director
33.		CBTS	Dir Susana Juangco	Director
34.		DRGD - PDPS	Ms. Cheryl Leal	Officer-in-Charge -Chief
35.		DRRMDS - PDPS	Mr. Manuel Nivera	Chief
36.		DRRMDS - PDPS	Ms. Raquel De Leon	PDPS
37.		ITAD - CBTS	Ms. Rachelle Anne Miranda	Officer-in-Charge
38.		PDPS	Mr. Emanuel Balajadia	
39.		RRMS	Mr. Benito Salvador	
40.	JICA - Headquarter Tokyo	DRR Team I, DRR Group, Global Environment Department	Mr. Kimio Takeya	Distinguished Technical Advisor of JICA
41.			Mr. Satoshi Nakamura	Director
42.			Ms. Aya Goho	
43.	JICA Philippine Office		Ms. Ayumu Ohshima	Senior Representative
44.			Ms. Chihiro Mototani	
45.			Ms. Catherine Palanca	
46.	DRRMCEP 2 Team		Engr. Yoshihiko Uchikura	Team Leader/DRRM Governance
47.			Dr. Toshiaki Kudo	Deputy Team Leader/ DRRM planning I
48.			Engr. Naoko Kitazawa	DRRM planning 2
49.			Dr. Akihiro Furuta	Disaster Risk Assessment
50.			Dr. Kempei Kojika	Hazard Information I (Earthquake & Volcano )
51.			Engr. Yuusuke Yamasaki	Hazard Information I (Flood & Sediment Disaster )
52.			Engr. Daisuke Fujita	Non-Structural Countermeasure
53.			Engr. Satoshi Takata	Structural Countermeasure
54.			Dr. Yushimizu Gonai	Development Plan & Land-Use Plan
55.			Ms. Motoyo Araki	DRRM Training Program
56.			Ms. Mariko Yamada	Project Coordination / Capacity Development
57.		Mr. Takuya Ito	DRRM Information	
58.		Ms. Terteen Omana	Senior DRRM Specialist	
59.		Ms. Geraldine Santos	Senior DRRM Specialist	
60.		Ms. Christine Derafera	Training Specialist	
61.		Ms. Armi Peregrino	Project Secretary	





## First Joint Coordination Committee meeting for DRRMCEP2

December 10, 2020

1

Time	Agenda of the 1st JCC meeting	Presenter
10:00 - 10:05	Opening / Acknowledgement of Participants	Dir. Tecson John S Lim Director of PDPS, OCD
10:05 -- 10:20	JICA's effort to enhance DRR / Expectations towards this project	Ms. Aya Goho DRR Team1, DRR Group, Global Environment Department, JICA HQs
10:20 - 10:35	Outline of the whole Project; Explanation on the Revised Activity Schedule, Pilot-LGU selection and results; Sharing of the Work Plan, PDM and Monitoring Sheet	Mr. Yoshihiko Uchikura, Team Leader Ms. Naoko Kitazawa, DRRM Planning2 JICA Experts Team
10:35 - 11:25	Reporting on the Baseline survey results, WG composition, achievements and next steps per WG	OCD- WG leaders
11:25 - 11:55	Open discussion / Agreements on the JCC and WG memberships, Pilot LGUs, project progress	
11:55 -12:00	Closing / Adjournment	Mr. Satoshi Nakamura Director, DRR Team 1, DRR Group, Global Environment Department, JICA HQs Dir. Tecson John S Lim Director of PDPS, OCD



### Points of discussions

- Approval of the Work Plan, PDM and Monitoring Sheet (official commencement of the project)
- Approval of the "List of Members of Joint Coordination Committee (JCC)"
- Approval of the Implementation Structure including Working Group Members
- Approval of the progress of the project
  - Revised schedule and activities
  - Selection of Pilot LGUs (First Batch)
  - Result of Baseline Survey and next steps for each output
- Understanding of the JICA technical cooperation project:  
Activities are mainly conducted by OCD/related agencies and technically supported by JICA expert team.



3



JICA's effort to enhance DRR /  
Expectations towards this project



Outline of the whole Project,  
Revised Activity Schedule,  
Work Plan, PDM and Monitoring Sheet



# 1. Background of the Project

## Brief Recapitulation of the Phase I

**Implementing agency:** Office of Civil Defense (OCD)

**Project Period:** 3 years from Mar. 2012 to Mar. 2015

**Overall Goal**

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

**Project Purpose**

"Capacity on DRRM of OCD is strengthened."

**Component**

**Planning Component**

- Support to review RA 10121 and NDRRMP
- LDRRRMPs for pilot Region
- M&E system for planning

**Operations Component**

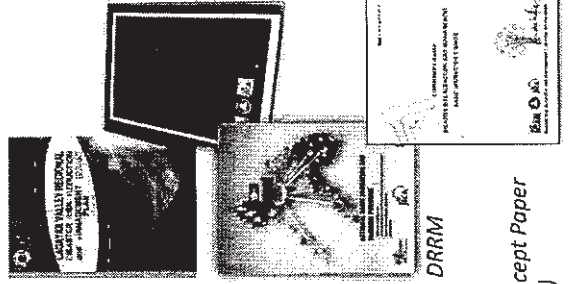
- NDRPs for pilot disasters
- OCD Operation Manual for Response
- Information Management System (IMS)

**Education and Training Component**

- NDRRM ETP
- Training modules for DRRM TI
- Career Education and Training Program for OCD

**CBDRRM Component**

- National Policy
- Training course (module) for DRRM TI
- Basic Instructor's Guide
- Action Plan



## Brief Recapitulation of the Phase I

### Major Products

[Planning Component]

- Series of Plans (CV-DRRMP and 4 LDRRRMPs)
- Monitoring System of LDRRRMP and LDRRMO
- Suggestions to review RA10121 and NDRRMP

[Operations Component]

- NDRP for Hydro-Met and Earthquake/Tsunami
- OCD Operation Manual for Response
- Information Management System (IMS)

[DRRM Education and Training Component]

- National DRRM Education and Training Program on DRRM
- Civil Defense Education and Training Program on DRRM

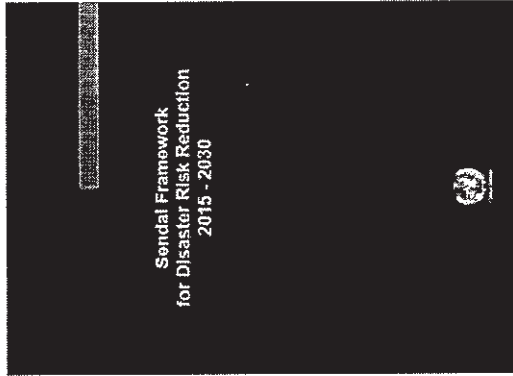
[CBDRRM Component]

- National Policy with Action Plan based on the Concept Paper
- Training Course with Basic Instructor's Guide (BIG)

# JICA's Support for LDRRMP

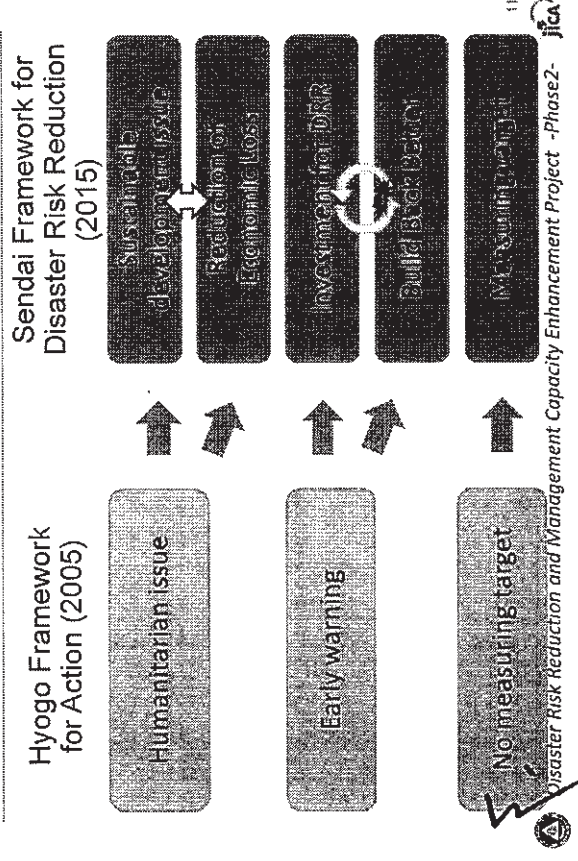
- LDRRMP Training Manual (2013) (considered as "Guidelines for LDRRMP")
  - JICA DRRMCEP Phase1(2012-2015)
    - Support LDRRMP formulation
    - Develop LDRRMP-M&E toolkit (checklist)
- Sendai Framework for DRR (2015)
  - NDRRMC Memorandum No.147-2017 (Starting of LDRRMP review)
    - JICA DRRMCEP Phase2 (2019-)
      - Revise the LDRRMP formulation guideline
      - Update the LDRRMP-M&E toolkit (workshop in July, 2019)
      - Establish M&E system for LDRRMP etc.

# Sendai Framework for Disaster Risk Reduction 2015-2030

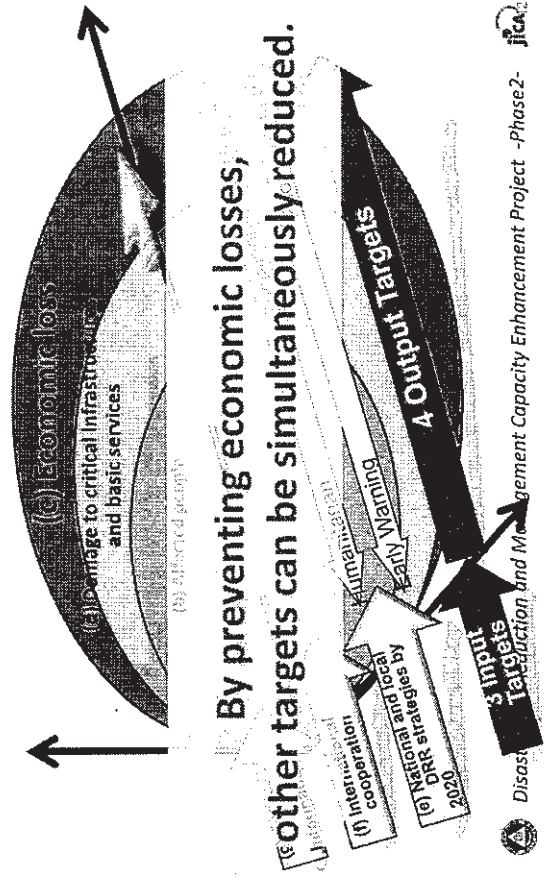


Sendai Framework for Disaster Risk Reduction 2015-2030	
<b>Contents</b>	
Preamble	9
Expected outcome and goal	12
Guiding principles	13
Priorities for action	14
Priority 1: Understanding disaster risk	14
Priority 2: Strengthening disaster risk governance to manage disaster risk	17
Priority 3: Investing in disaster risk reduction for resilience	18
Priority 4: Enhancing disaster preparedness for effective response and to build back better in recovery, reconstruction and rehabilitation	21
Role of stakeholders	23
International cooperation and global partnership	24

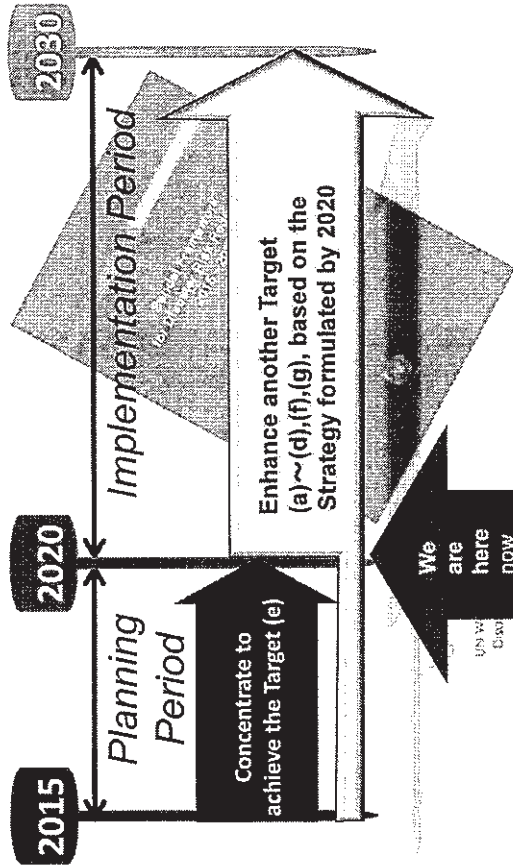
# Paradigm Shift From HFA to Sendai Framework



# Relevance of Global Targets



## Planning to precede implementation



## 2. Outline of the Project

### Outline of the Project-1

Overall Goal: 3-5 years after the project

The project outcome is replicated in the Philippines for the purpose of reducing disaster human casualties and economic losses under NDRRMC's initiative.

Project Purpose: during project period

Planning, implementation and monitoring system of RDRRMPs/LDRRMPs is developed for the purpose of reducing disaster human casualties and economic losses with the necessary technical support by National DRRM system centered upon NDRRMC.

### Outline of the Project-2

Output1: Disaster Risk Understanding and Information (WG1)

Guidelines for hazard information use and risk assessment are developed so that disaster-related officials centered upon RDRRMC and LDRRMC can understand local disaster risks and realize disaster risk reduction through countermeasures.

Output2: Local DRRM Plan (WG2)

Guidelines for the formulation of RDRRMPs/LDRRMPs based on disaster risk information are developed for the purpose of reducing disaster human casualties and economic losses.

Output3: Monitoring and Evaluation (WG3)

OCD's information management, monitoring and evaluation system on the formulation, revision and implementation of RDRRMPs/LDRRMPs is established.

Output4: Trainings and Replication (WG4)

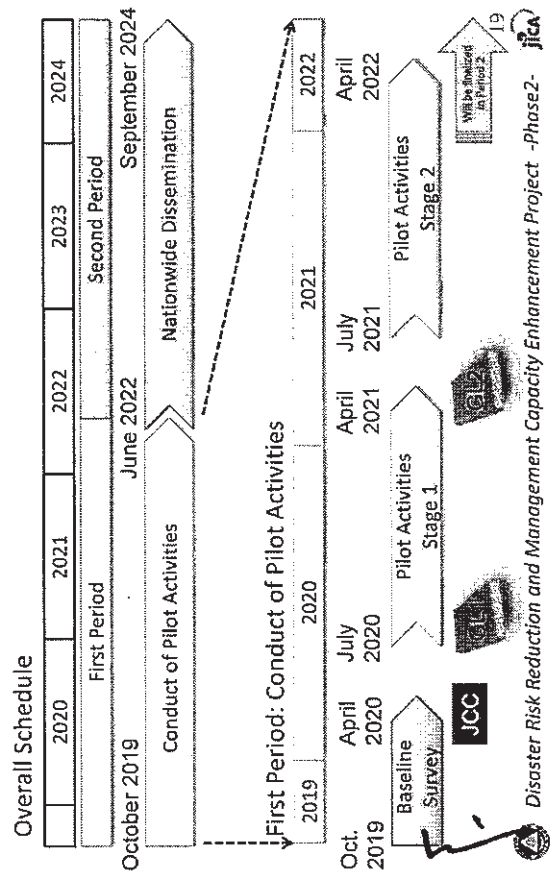
Training system is established in order to replicate the project outcome and conduct training for regions and LGUs in the Philippines.

## Project Implementation Principles

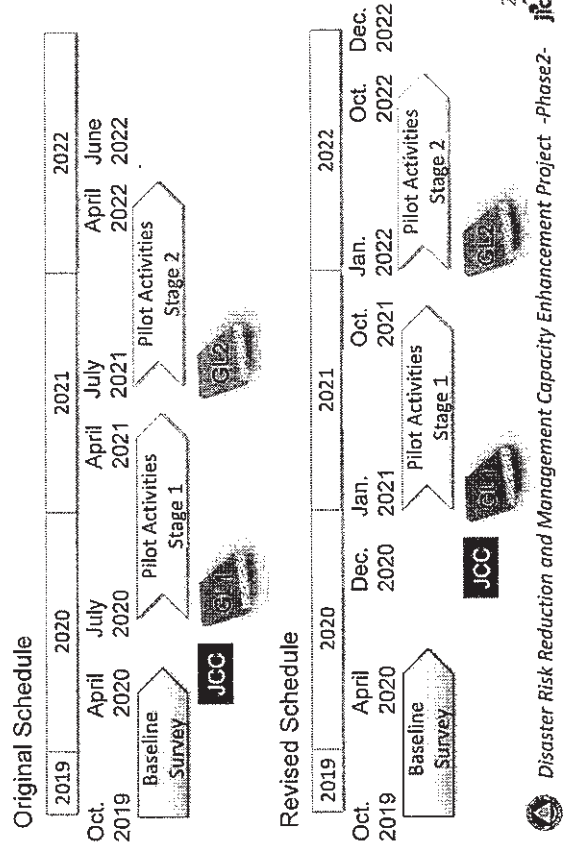
1. Planned activities in the LDRRMPs have to reduce the risks. *(Output 1 and Output 2)*  
=> Contents of LDRRMPs should be improved.
2. LDRRMPs have to be implemented and monitored. *(Output 2 and Output 3)*  
=> Necessary budget should be allocated and used.
3. "Practical" LDRRMPs have to be replicated in the Philippines. *(Output 4)*  
=> Supporting system of LGUs should be established.

## 3. Activity Schedule

### Overall Schedule of the Project (Original)



### Revised Schedule of the Project (as of Dec.2020)



## PDM, Work Plan and Monitoring Sheet

- PDM and Work Plan will be revised according to the progress of project activities, and need to be approved by JCC.
- Current Work Plan is remained as was drafted in October 2019. Work plan will be revised when the COVID-19 situation will get better.
- Monitoring Sheet will be updated mainly by OCD C/P members of each WG supported by JICA expert team every half a year.



## 4. Work Plan, PDM and Monitoring Sheet



## Purposes of Pilot Activities

The purposes of pilot activities are:

- To verify the effectiveness of the proposed guidelines on Disaster Risk assessment (Output 1);
- To verify the effectiveness of the revised Local DRRM Planning guidelines (Output 2);
- To check the validity of the proposed Monitoring and Evaluation system composed of a revised guidelines for the LDRRMP review and process (Output3); and
- To consider a realistic structure to cascade the proposed guidelines from the National to Local Governments (Output 4).



## 5. Pilot-LGU selection and results



## Basic Concept of Pilot Activities

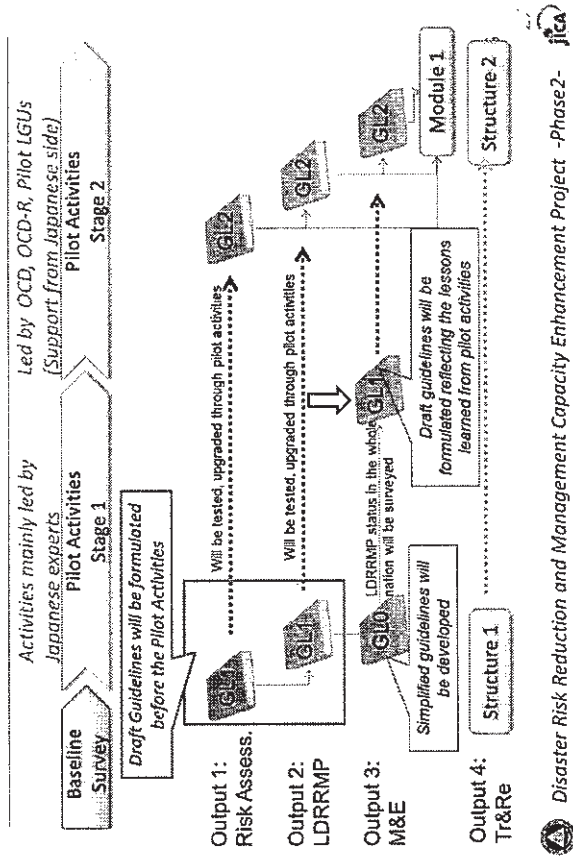
The basic concepts of the Pilot Activities are as follows:

- The direct support from the JICA Expert Team will be reduced gradually, in order to evaluate the above pilot activities properly.
- The effectiveness of the draft guidelines will be verified and consolidated by reflecting the lessons learned from the pilot activities.
- The pilot activities conducted with the leadership of pilot LGUs with the support from NGAs will be monitored, and a system to cascade nationwide the Project's outputs will be proposed, checked during the activities.

## Criteria

Province	<ul style="list-style-type: none"> <li>• Good timing of PDRRMP review and revision according to PDRRMOs</li> <li>• Accessibility of LGU</li> <li>• High socio-economic development potential</li> <li>• High exposure to multi-hazard (flood, earthquake, liquefaction, etc)</li> <li>• Recommendation of OCD-RO</li> <li>• Avoidance of duplication with existing efforts and programs</li> </ul>
City/Municipality	<ul style="list-style-type: none"> <li>• Consideration of the "Timing" of LDRRMPs' revision</li> <li>• Accessibility of LGU</li> <li>• Socio-economic potential (high population and major economic activities)</li> <li>• Potential hazard (with high exposure to "multi-hazard")</li> <li>• Recommendation of PDRRMO</li> </ul>

## Image of Pilot Activities



## Results

- Following LGUs are selected as pilot areas in Stage 1.  
Region 4A – Laguna Province – Calamba City  
Region 7 – Bohol Province – Tubigon Municipality

Province of Laguna	<ul style="list-style-type: none"> <li>✓ First Class Province</li> <li>✓ High future economic potential (road development)</li> <li>✓ Possibility to align LDRRMP with future Flood Control Projects</li> </ul>
City of Calamba	<ul style="list-style-type: none"> <li>✓ First Class City</li> <li>✓ Highly exposed to rainwater flooding and earthquake</li> <li>✓ Easy coordination with OCD-Regional Offices</li> </ul>
Province of Bohol	<ul style="list-style-type: none"> <li>✓ First Class Province</li> <li>✓ High future economic potential (airport extension, tourism promotion)</li> <li>✓ Already highly capacitated in term of Disaster Preparedness and Response and High motivation to enhance Mitigation/Prevention</li> </ul>
Municipality of Tubigon	<ul style="list-style-type: none"> <li>✓ First Class Municipality</li> <li>✓ Highly exposed to hydro-met, geo-hazards and also coastal disasters</li> <li>✓ Future Special Economic Zone</li> </ul>



## Baseline survey results

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## Open discussion / Agreements

31

### Points of discussions

- Approval of the Work Plan, PDM and Monitoring Sheet (official commencement of the project)
- Approval of the "List of Members of Joint Coordination Committee (JCC)"
- Approval of the Implementation Structure including Working Group Members
- Approval of the progress of the project
  - Revised schedule and activities
  - Selection of Pilot LGUs (First Batch)
  - Result of Baseline Survey and next steps for each output
- Understanding of the JICA technical cooperation project: Activities are mainly conducted by OCD/related agencies and technically supported by JICA expert team.



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Revised Annex 5  
Of the RD  
(August 8, 2019)

### List of proposed members of JCC

1. Project Administration	Project Director: Usec. Ricardo B. Jalad, Administrator of OCD Project Manager: Dir. Jacson John S Lim, Director of PDPS-OCD
2. JCC Members	<ul style="list-style-type: none"> <li>• Representative(s) from DPWH</li> <li>• Representative(s) from PAGASA</li> <li>• Representative(s) from PHIVOLCS</li> <li>• Representative(s) from DILG</li> <li>• Representative(s) from DSWD</li> <li>• Representative(s) from NEDA</li> <li>• Any other personnel appointed by OCD and/or JICA if required; including representatives from Working Group Members</li> </ul>
3. Project Team Members	<ul style="list-style-type: none"> <li>(1) Leader of WG1: Ms. Cheryl Loise T. Leal</li> <li>(2) Leader of WG2: Mr. Manuel R. Nivera Jr</li> <li>(3) Leader of WG3: Mr. Benito Salvador Jr/Ms Raquel de Leon</li> <li>(4) Leader of WG4: Ms. Rachelle Anne Miranda</li> <li>(5) Regional Directors and Officers of OCD-R4A and R7</li> <li>(5) JICA Experts</li> </ul>
4. Observers	<ul style="list-style-type: none"> <li>(1) Representative(s) from LGUs</li> <li>(2) Representative(s) from JICA Headquarter and JICA Office in the Philippines</li> <li>(3) Embassy of Japan</li> <li>(4) Any other personnel appointed by OCD and/or JICA if required; including representatives from Working Group Members</li> </ul>



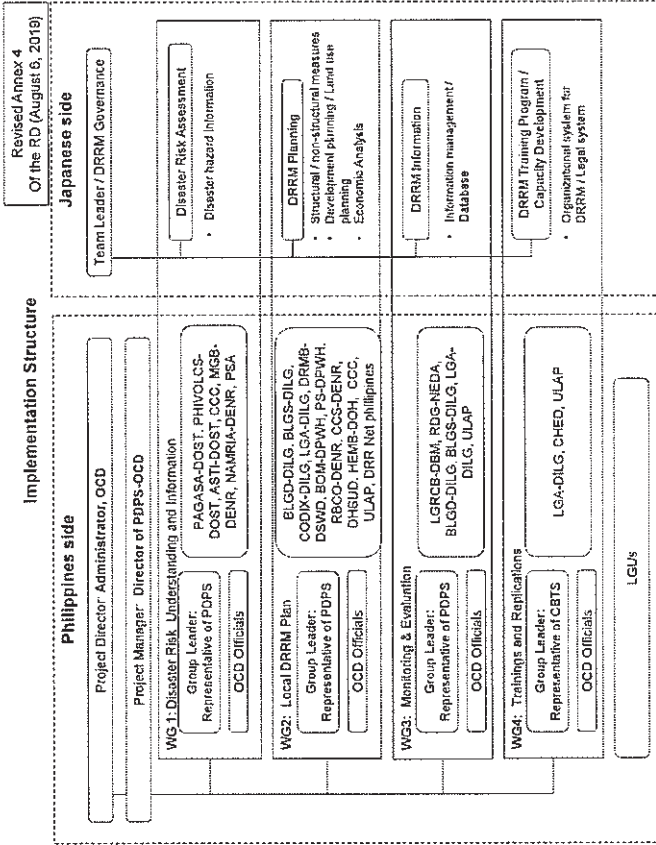
# Working Group Members

	Organization	WG		Organization	WG
1	CCC	1 ; 2	13	DOH-HEMB	2
2	CHED	4	14	DOST-ASTI	1
3	DBM- LGRCB	3	15	DOST-PAGASA,	1
4	DENR-CCS	2	16	DOST-PHIVOLCS	1
5	DENR-MGB	1	17	DPWH – BOM	2
6	DENR-NAMRIA	1	18	DPWH –PS	2
7	DENR-RBCO	2	19	DRR Net	2 ; 4
8	DHSUD	2	20	DSWD-DRMB	2
9	DILG-BLGD	2 ; 3	21	NEDA-RDG	3
10	DILG-BLGS	2 ; 3	22	PSA	1
11	DILG-CODIX	2	23	ULAP	2 ; 3 ; 4
12	DILG-LGA	2 ; 3 ; 4			



## Initial Concepts on the Conduct of Disaster Risk Assessment (DRA) for Local DRRM Planning

### OUTPUT 1 on Disaster Risk Assessment



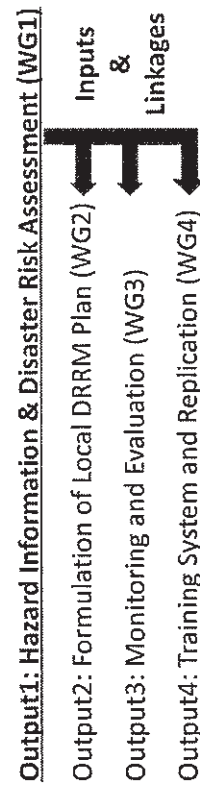
Thank you.

## Outline of the Project

### Project Purpose:

Planning, implementation and monitoring system of RDRRMPs / LDRRMPs is developed for the purpose of reducing disaster human casualties and economic losses with the necessary technical support by National DRRM system centered upon NDRRMC.

### Activities for the Project



Disaster Risk Reduction and Management Capacity Enhancement Project -Phase2- <sup>2</sup> jica

## WG1 (Output 1 for DRA) Members

Philippines Side	Japanese Side
<b>Group Leader</b> Ms. Cheryl Loise T. Leal (PDPS)	<b>Disaster Risk Assessment</b> Mr. Akihiro FURUTA
<b>Members from OCD</b> Mr. Relan Jay Asuncion (OS)	<b>Hazard Information 1 (Flood &amp; Sediment-Disaster)</b> Mr. Yusuke YAMAZAKI
Ms. Deniece Krizia Manding (OS)	<b>Hazard Information 1 (Earthquake &amp; Volcano)</b> Mr. Kenpei KOJIKI
Mr. Kenneth Menor (PDPS)	<b>Senior DRRM Specialist</b> Ms. Geraldine SANTOS
<b>Technical Working Group Members</b> DOST/PHIVOLCS DOST/PAGASA DENR/MGB Other Related Agencies	

Disaster Risk Reduction and Management Capacity Enhancement Project -Phase2- <sup>4</sup> jica

## Expected Output of WG1

### Output1: Hazard Information & Disaster Risk Assessment (WG1)

Guidelines for hazard information use and risk assessment are developed so that disaster-related officials in RDRRMC and LDRRMC can understand local disaster risks and realize disaster risk reduction through countermeasures.

### What should be done ?

The following situation should be understood through the baseline survey before getting started on developing a guideline.

- 1) **Data and information available for Disaster Risk Assessment (DRA)**
- 2) **How to conducted DRA for local planning procedure**
- 3) **How to identify local disaster risks and reflect those results to select adequate countermeasures in the current Local DRRM plans**

Disaster Risk Reduction and Management Capacity Enhancement Project -Phase2- <sup>3</sup> jica

## Draft Outline of the LDRRMP Planning Flow Prepared by WG2

### STAGE 1 (Preparation Stage) Situational Analysis

- INPUT** →
- ✓ Analyze the current situation of the LGU
    - Higher Plans and Policies
    - Related Plans within the LGU
    - Socio-Economic Situation
    - Disaster Risk Profile
    - etc

### STAGE 2: Planning Stage (Part 1) Setting the DRRM Roadmap (Strategy, Targets, Output, Outcome)

- ✓ Establish DRRM roadmap based on situational analysis
- Policy** ✓
- Identify DRRM targets/strategies into: long-term, medium-term, and short-term

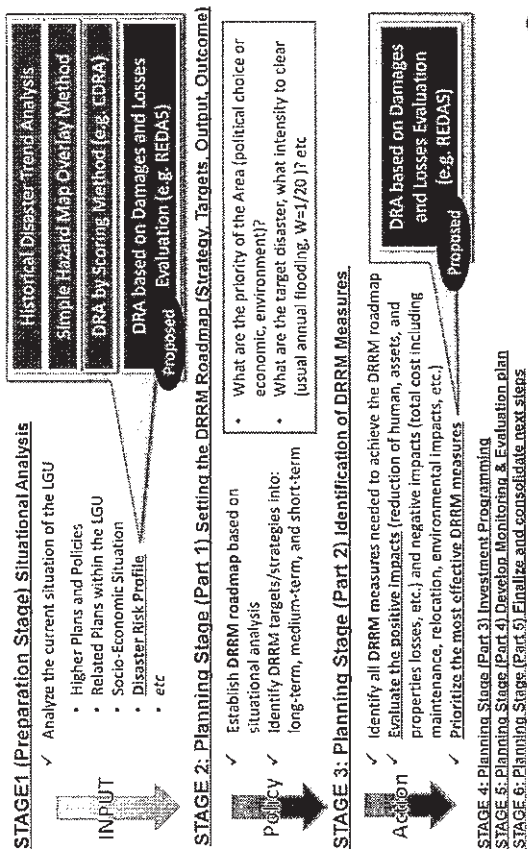
### STAGE 3: Planning Stage (Part 2) Identification of DRRM Measures

- ✓ Identify all DRRM measures needed to achieve the DRRM roadmap
- ✓ Evaluate the positive impacts (reduction of human, assets, and properties losses, etc.) and negative impacts (total cost including maintenance, relocation, environmental impacts, etc.)
- ✓ Prioritize the most effective DRRM measures
- Action** →

STAGE 4: Planning Stage (Part 3) Investment Programming  
 STAGE 5: Planning Stage (Part 4) Develop Monitoring & Evaluation plan  
 STAGE 6: Planning Stage (Part 5) Finalize and consolidate next steps

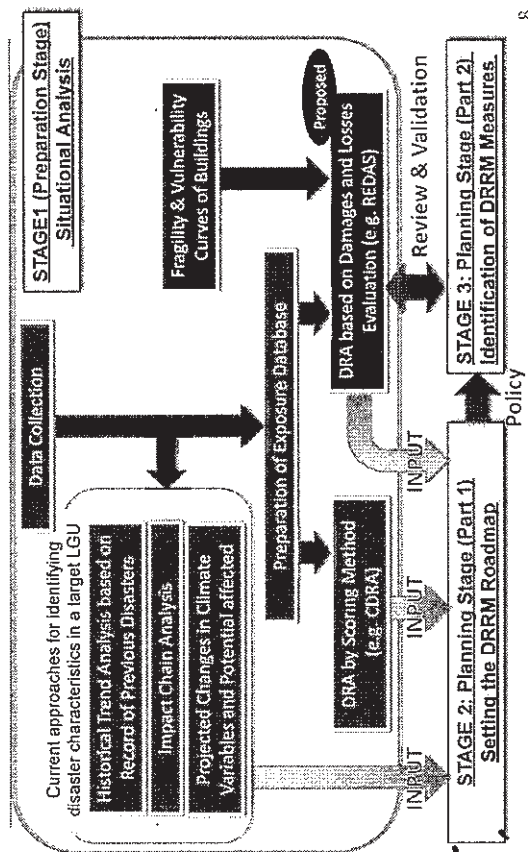
Disaster Risk Reduction and Management Capacity Enhancement Project -Phase2- <sup>4</sup> jica

## Draft Outline of the LDRRMP Planning Flow Prepared by WG2



Disaster Risk Reduction and Management Capacity Enhancement Project -Phase2- jica

## How should the "Damages & Losses Evaluation" be implemented in the Process of RDRRMPs/LDRRMPs' formulation?



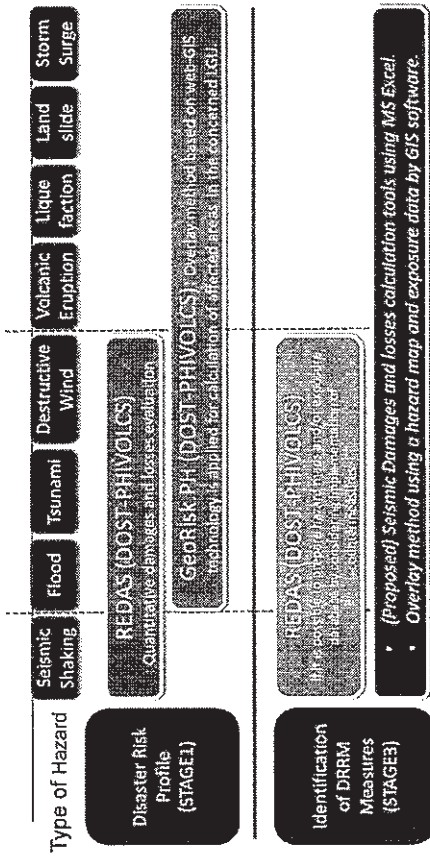
Disaster Risk Reduction and Management Capacity Enhancement Project -Phase2- jica

## Difference in DRA Characteristics

Features of Methods	DRA by Scoring Method (e.g. CDRA)	DRA based on Damages and Losses Evaluation (e.g. REDAS)
Typical outputs of data processing	<ul style="list-style-type: none"> <li>Qualitative scoring method using dedicated score charts and matrices.</li> <li>Vulnerability and Risk Index Scores (H, M, L) for population, urban use area, natural resource, critical facilities, lifeline utilities.</li> </ul>	<ul style="list-style-type: none"> <li>Quantitative evaluation based on hazard, Exposure and Vulnerability.</li> <li>Estimated amount of physical damages (e.g. buildings, cultivated area), direct economic loss, fatalities.</li> </ul>
Target Disaster	<ul style="list-style-type: none"> <li>Exhaustive exposed elements</li> <li>Flood, Landslide (Rain-induced &amp; Earthquake-induced), Storm Surge, Ground Rupture, Ground Shaking, Liquefaction, Tsunami, Volcanic eruption, Drought, Sea level rise</li> </ul>	<ul style="list-style-type: none"> <li>Limited exposed elements</li> <li>Ground Shaking, Liquefaction, Tsunami, Volcanic eruption, Flood, Landslide (Rain-induced &amp; Earthquake-induced), Storm Surge</li> </ul>
Current Situation	<ul style="list-style-type: none"> <li>CDRA is one of the major tools to indicate vulnerable areas for each exposed elements to climate change and natural disasters.</li> <li>It is not adequate for a scoring method to estimate quantitative disaster damage and economic losses and effects of mitigation by countermeasure.</li> </ul>	<ul style="list-style-type: none"> <li>REDAS is the only official system to enable a quantitative estimation of damage and loss due to natural disasters in Philippines.</li> <li>Damage and Losses Evaluation can be used to set quantitative goals of DRR actions in consideration of countermeasures.</li> </ul>

Disaster Risk Reduction and Management Capacity Enhancement Project -Phase2- jica

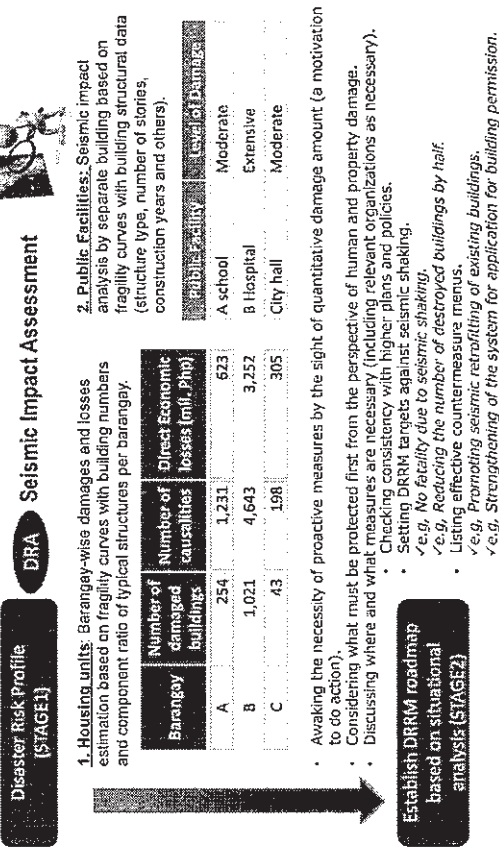
## Effective DRA Tools for Damages and Losses Evaluation



- It is necessary to discuss who will carry out DRA (NGAs, Province, LGUs themselves or others?).
- A DRA tool and procedure that is easy to operate to calculate damages and losses is required only for LDRRMP formulation from the perspective of popularization.

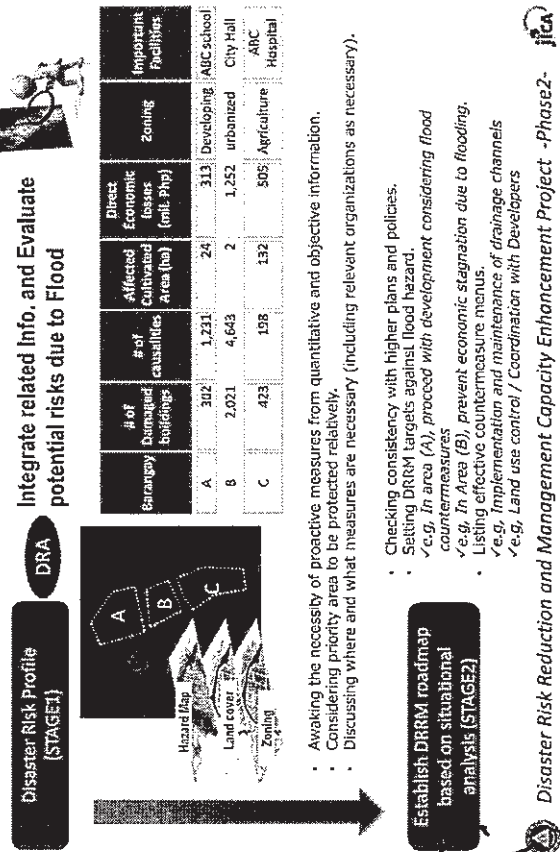
Disaster Risk Reduction and Management Capacity Enhancement Project -Phase2- jica


## Proposed DRA Procedure for Local DRRM Planning In case of "Seismic Shaking"



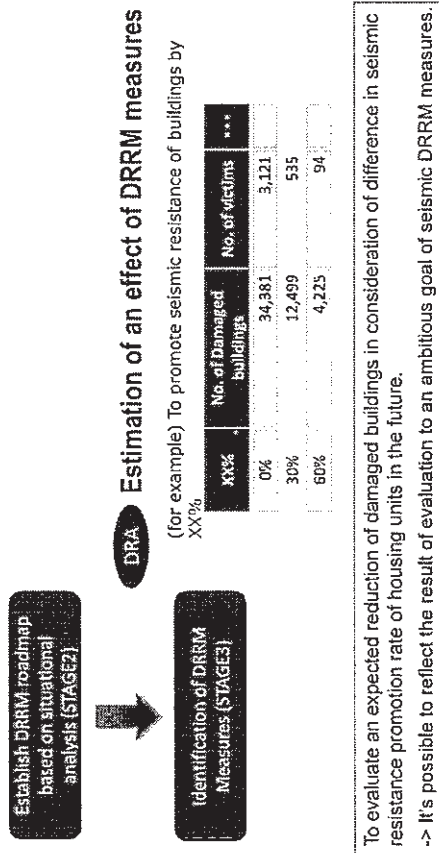
Disaster Risk Reduction and Management Capacity Enhancement Project -Phase2- 

## Proposed DRA Procedure for Local DRRM Planning In case of "Flood"



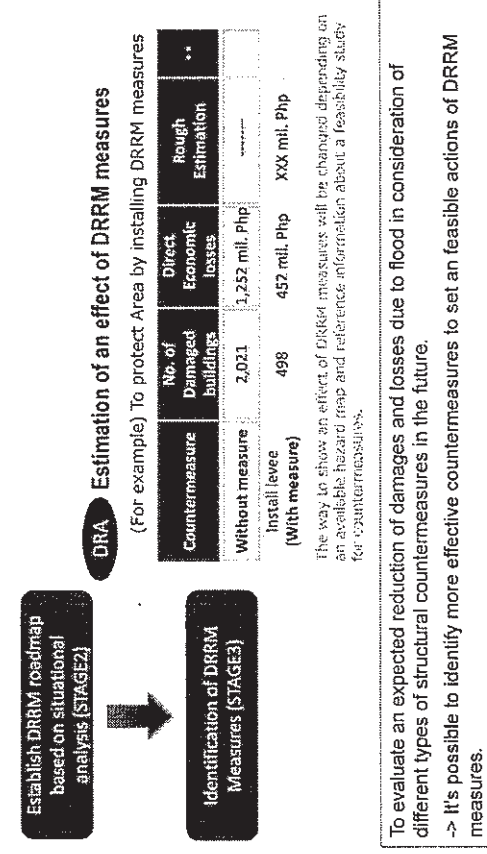
Disaster Risk Reduction and Management Capacity Enhancement Project -Phase2- 


## Proposed DRA Procedure for Local DRRM Planning In case of "Seismic Shaking"



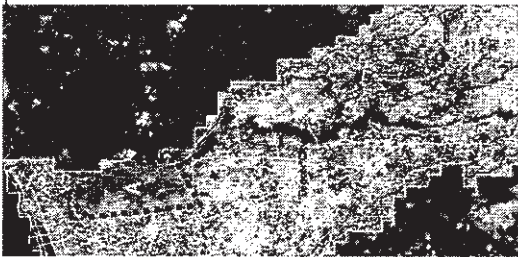
Disaster Risk Reduction and Management Capacity Enhancement Project -Phase2- 

## Proposed DRA Procedure for Local DRRM Planning In case of "Flood"



Disaster Risk Reduction and Management Capacity Enhancement Project -Phase2- 

### Example for Rough Estimation of the effort to implement flood protection work



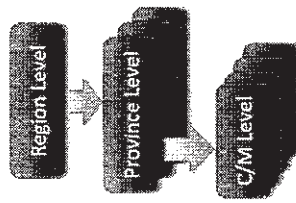
If Area "A" is protected from flood hazard by appropriate countermeasures, total 2,606 buildings and their residents escape physical damage due to flood. As a result, the damage cost is reduced by almost 20.7%.

Barangay	Number of Affected Buildings		Damage Cost	
	Total	Area "A"	Total	Area "A"
Alima	1,062	289	20.8	5.4
Almaza Dps	71	0	15.8	0
Aniban I	744	0	14.8	0
Aniban II	316	0	7.4	0
Aniban III	401	0	9.7	0
Aniban IV	374	0	8.7	0
Aniban V	875	0	17.7	0
Bayanan	1,826	937	26.9	17.4
Campo Santo	937	2,626	45.8	10.0
Daang Bukid	457	2,471	45.9	29.5
Dulong Bayan	1,728	2,877	272.8	220.3
Habay I				
Habay II				
<b>Total</b>	<b>13,877</b>	<b>2,606</b>	<b>272.8</b>	<b>220.3</b>

### Who will do the calculation of damages and losses using DRA tools (e.g. REDAS) for Local DRRM Planning ?

- Option1: LGUs do it by themselves
- Option2: Provinces do it and distribute the final calculations to LGUs under own provinces
- Option3: NGAs (PHIVOLCS REDAS Team?) do it and distribute the final calculations to all LGUs in the Philippines

[Proposal] Option2:



- Implementation of the REDAS Online Training by PHIVOLCS REDAS Team.
- Responsible officers from each province attend to the online training.
- Each province evaluate disaster impacts of own administrative area using REDAS and receive the final calculations of barangay-wise impact assessment from PHIVOLCS REDAS Team.
- Each province distributes the final calculations to each LGU under own provinces.
- C/Ms utilize the final calculations of barangay-wise impact assessment for understanding local disaster risks in Local DRRM Planning.



## Working Group 2 Updates

MANUEL R NIVERA JR  
Group Leader

Thank you !

## Scope of Presentation

1. WG Members Composition
2. Expected Outputs
3. Baseline Survey Results
4. Basic Concepts of the Guidebook
5. Outline of the LDRRMP Guidebook
6. Ways Forward



## Objectives of the Presentation

1. Report the Working Group 2 updates
2. Present the basic concepts and draft outline of the LDRRMP Guidebook



## Working Group 2 Members

Philippines Side	Japanese Side
<b>Group Leader</b> Mr. Manuel R Niviera Jr (PDPS)	<b>Deputy Team Leader / DRRM Planning 1</b> Mr. Toshiaki KUDO
<b>Members from OCD</b> Ms. Cheryl Loise T.Leal (PDPS) Mr. Benito Salvador (RRMS) Mr. Renato Libunao (PDPS) Ms. Hyacinth Joanne Barros (CBTS)	<b>DRRM Planning 2</b> Ms. Naoko KITAZAWA
<b>TWG Members:</b> • BLGD – DILG • CODIX-DILG • LGA-DILG • NBOO-DILG • ULAP • DOH • DRRNet Phils	<b>Structural Countermeasure</b> Mr. Satoshi TAKATA
• DBM • COA • DPWH • CCS-DENR • RBCO-DENR • DSWD • DSHUD	<b>Non-Structural Countermeasure</b> Mr. Daisuke FUJITA
	<b>Development Plan &amp; Land-Use Plan</b> Mr. Yoshizumi GONAI
	<b>Senior DRRM Specialist</b> Ms. Terteen Gail Bilgera Omana

## Expected Output of WG2

### Output1: Disaster Risk Understanding and Information (WG1)

Guidelines for hazard information use and risk assessment are developed so that disaster-related officials centered upon RDRRMC and LDRRMC can understand local disaster risks and realize disaster risk reduction through countermeasures.

### Output2: Local DRRM Plan (WG2)

Guidelines for the formulation of RDRRMPs/LDRRMPs based on disaster risk information are developed for the purpose of reducing disaster human casualties and economic losses.

### Output3: Monitoring and Evaluation (WG3)

OCD's information management, monitoring and evaluation system on the formulation, revision and implementation of RDRRMPs/LDRRMPs is established.

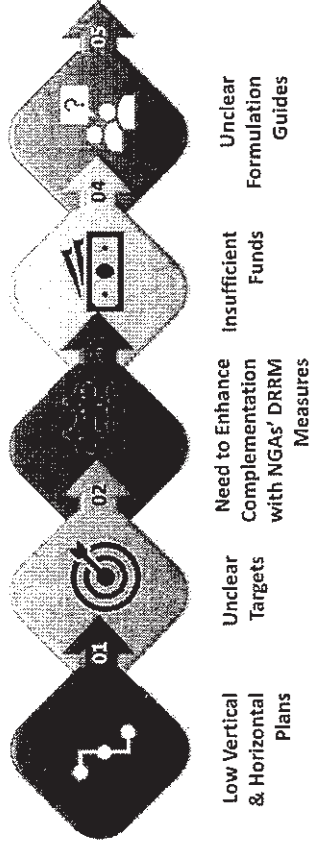
### Output4: Trainings and Replication (WG4)

Training system is established in order to replicate the project outcome and conduct training for regions and LGUs in the Philippines.



**Baseline Survey Results**

**Major Challenges related to LDRRMP Formulation**



**Basic Concepts of the Guidebook**

**Point 1: Emphasizes on the importance to reflect Disaster Risk Assessment Results into DRRM Planning**

- To consider concrete DRRM strategy and roadmap and
- To promote the implementation of relevant and effective DRRM measures

**Point 2: Stand-alone user-friendly LDRRMP Formulation guide**

- To enable LGUs to formulate by themselves their LDRRMPs in compliance with OCD-NDRRMC's requirements.
- Expected users will be members of P/C/M DRRMO's officers which may not have been trained.

**Point 3: Provide standard documents to facilitate LDRRMP review**

- Set of explanations and forms that have to be filled by LGUs.



**Basic Concepts of the Guidebook**

**Point 4: Improvement of the LDRRMP Formulation procedure**

- Enhance existing formulation guidelines

**Point 5: Gather inputs from relevant NDRRMC-member agencies**

- Promote the implementation of flood control and other DRRM infrastructure projects;
- Promote retrofitting of critical infrastructures.

**Point 6: Align LDRRMP formulation with the budgeting calendar**

- DILG – DOF-BLGF – DBM – NEDA Joint Memorandum Circular No. 1 s. 2016 dated 18 November 2016 entitled Synchronized Planning and Budgeting Calendar





## Outline of the Draft LDRRMP Formulation Guidebook

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## Outline of the LDRRMP Formulation Guidebook

- ✓ Stage 0 : Organization of the Local DRRM – Planning Team
- ✓ Stage 1 : Preliminary Analysis
- ✓ Stage 2 : Set Step-by-Step DRRM Strategy and Roadmap (Goal, Objectives and Outcomes)
- ✓ Stage 3 : Identify the Needed DRRM Measures
- ✓ Stage 4 : Prepare Local DRRM Fund Investment Plan and Supplemental Investment Program for the Special Trust Fund
- ✓ Stage 5 : Develop a Results-Based Monitoring & Evaluation Plan



## Composition of the Guidebook

### Stage1: Preliminary Analysis \*based on the reflections on DRA

- Analyze the current situation of the LGU and anticipate what may happen in the future
- Ensure the alignment of LDRRMP with higher and related local plans
- Identify the critical factors/challenges to consider in LDRRM Planning

### STAGE 2: Set Step-by-Step DRRM Strategy and Roadmap (Goal, Objectives and Outcomes)

- Identify DRRM targets and strategies into long-term, medium-term, and short-term
- Establish DRRM roadmap anchored with the NDRRMP

### STAGE 3: Identify the Needed DRRM Measures

- Identify a list of all DRRM structural and non-structural DRRM measures needed to achieve DRRM Strategy and Roadmap
- Evaluate quantitatively the positive and negative impacts caused by the implementation of DRRM measures
- Identify and prioritize the most effective DRRM measures



## Stage 1: Analyze the current situation of the LGU

Socio-economic profile and disaster risk profile as reflected in the LDRRMP have no clear linkage to determine what may happen in the future.

In the Guidebook, we are proposing to anticipate what may happen in the future by linking:

1. the analysis on the Current Situation (reflecting DRA),
2. the assumptions given by higher plans and local mother plans (NDRRMP, RDRRMP, CDP, CLUP etc.), and
3. the existing plans related to DRRM infrastructures (such as flood control projects and other infrastructures)





## Stage 2: Set Step-by-Step DRRM Strategy and Roadmap (Goal, Objectives and Outcomes)

Unclear Targets

In the Guidebook, we are proposing to:

1. Formulate **DRRM Strategy and DRRM Roadmap** that will be targeted during the Short-term (3 years), Medium-term (5 to 6 years) reflecting the LGU's Vision and higher policies and directions; and Long-term (7 to 10 years) anchored on the NDRRM Framework.
2. Set specific and concrete targets (quantitative/numeric targets)

Ways Forward

## Stage 3 : Identify the Needed DRRM Measures

Need to enhance the complementation of the DRRM measures. The combination of appropriate DRRM measures to reduce **disaster human casualties and economic losses** has to be considered.

In the Guidebook, we are proposing to:

1. Facilitate the collaboration of NGAs, LGUs and other organizations on the different DRRM measures to be implemented
2. Conduct Quantitative Evaluation to understand and justify the effects of the proposed DRRM measures (in coordination with WG1)

December :

- Consolidation of inputs/comments to the Draft Guidebook
- Review of the updated NDRRMP and reflect the localization indicators;
- Gather and deliberate on the comments and inputs from WG members and OCD-Regional Offices

January:

- Presentation of the Revised Draft Guidebook
- Conduct WG meeting

January-February:

- Conduct Pilot Activity
- Data collection
- Formulate analysis based on the pilot study results

Post-pilot

Revision of the 1<sup>st</sup> Draft of LDRRMP

## WG3 Updates

1

End of Presentation

## Outline of Presentation

1. WG 3 Composition
2. Expected Output for WG 3
3. Present the initial baseline survey results
4. Proposed activities

## Objectives of the Presentation

1. Share the WG updates
2. Present the initial baseline survey results and recommendations
3. Present the parallel activities of Output 3 (M and E) with Output 2 (LDRRMP Guidelines)

## WG3 (Output 3 for M&E) Members

Philippines Side (OCD)	Japanese Side
<b>Group Leader</b> Mr. Benito Salvador (RRMS)/Ms. Raquel De Leon (PDPS)  <b>Members from OCD</b> Mr. Robi Jericho de Gracia (PDPS) Mr. Emanuel Balajadia (PDPS) Ms. Gia Mae Resaba (PDPS) Ms. Hannah Grace Escamilla (CBTS)	<b>DRRM Information</b> Mr. Takuya ITO <b>DRRM Planning 2</b> Ms. Naoko KITAZAWA <b>Project Coordination / Capacity Development</b> Ms. Mariko YAMADA <b>Senior DRRM Specialist</b> Ms. Terteen Gail Omana

## WG3 (Output 3 for M&E) Members

Philippines Side (NGAs)	Japanese Side
<b>Technical Working Group Members</b> • DBM- Local Government and Regional Coordination Bureau (LGRCB) • DILG-BLGD • DILG-LGA • NEDA-Regional Development Group • ULAP	<b>DRRM Information</b> Mr. Takuya ITO <b>DRRM Planning 2</b> Ms. Naoko KITAZAWA <b>Project Coordination / Capacity Development</b> Ms. Mariko YAMADA <b>Senior DRRM Specialist</b> Ms. Terteen Gail B. Omana

## Expected Output of WG3

Output1: Disaster Risk Understanding and Information (WG1)

Guidelines for hazard information use and risk assessment are developed so that disaster-related officials centered upon RDRRMC and LDRRMC can understand local disaster risks and realize disaster risk reduction through countermeasures.

Output2: Local DRRM Plan (WG2)

Guidelines for the formulation of RDRRMPs/LDRRMPs based on disaster risk information are developed for the purpose of reducing disaster human casualties and economic losses.

Output3: Monitoring and Evaluation (WG3)

OCD's information management, monitoring and evaluation system on the formulation, revision and implementation of RDRRMPs/LDRRMPs is established.

Output4: Trainings and Replication (WG4)

Training system is established in order to replicate the project outcome and conduct training for regions and LGUs in the Philippines.



Disaster Risk Reduction and Management  
Capacity Enhancement Project -Phase2- (DRRMCEP-II)



Baseline Survey Results



### Major Challenges related to LDRRMP M&E

It is important to:

- ✓ Provide clear guidelines on what is required (Output 2 – LDRRMP Formulation Guide) and how to review such requirements (Output 3 M and E)
- ✓ Identify the processes and agreement needed to conduct M&E of the formulation and implementation status of LDRRMPs

Since the review assessment reports differ per Region, a consolidated analysis is difficult to conduct.

**DEPARTMENT OF NATIONAL DEFENSE OFFICE OF CIVIL DEFENSE - COMBINED ADMINISTRATIVE REGION**

**REVIEWED REPORTS ON THE CONDUCT OF CIVIL DEFENSE TRAINING METHODS AND REVIEW OF TRAINING PLANS**

Region	Date of Report	Remarks
Region 1	2013.01.21	
Region 2	2013.01.21	
Region 3	2013.01.21	
Region 4	2013.01.21	
Region 5	2013.01.21	
Region 6	2013.01.21	
Region 7	2013.01.21	
Region 8	2013.01.21	
Region 9	2013.01.21	
Region 10	2013.01.21	
Region 11	2013.01.21	
Region 12	2013.01.21	
Region 13	2013.01.21	
Region 14	2013.01.21	
Region 15	2013.01.21	
Region 16	2013.01.21	
Region 17	2013.01.21	
Region 18	2013.01.21	
Region 19	2013.01.21	
Region 20	2013.01.21	

**Summary of Findings:**

- A. Preliminary Pages:
  - No executive summary
  - No table of contents
  - No map
- B. Ecological Profile:
  - Incomplete table on ecological profile.
- C. Institutional Structure:
  - Incomplete structure and process in the job.
- D. Risk Profile:
  - May include risk profile information in the area.
- E. Situational Analysis:
  - Present

**Some Regions submitted comprehensive Reports explaining the process they adopted to conduct the review, the challenges faced etc.**

**Some Regions submitted the summary of findings per LGU.**

**Some Regions submitted the summary of findings per LGU.**

- Risk reduction measures
- Risk reduction measures to be implemented
- Risk reduction measures to be implemented

**Notes:**

- No copies of findings, SOPs, and other relevant policies and programs
- No findings
- No findings

### Varying implementation in the conduct of LDRRMP review

- ✓ Processes on how to review varies per region
- ✓ Review assessment reports differ per region
- ✓ No fixed Feedbacking timeline vis-à-vis volume of LDRRMPs to be reviewed
- ✓ Some of the Review Team Members have limited knowledge on LDRRMP

Challenge 2: Limitations to assess the implementation status of LDRRMP

**Context:**

According to RA10121, not less than five percent (5%) of the estimated revenue from regular sources shall be set aside to support disaster risk management activities.

- ✓ Low submission of LDRRMF reports to NDRRMC and DILG as required by the JMC of 2013

**Concretely, the reason of this challenge is that:**

- ✓ Although LGUs are “mandated” to submit their monthly accomplishment, there is no sanction in case of non-submission.



On-Going and proposed Activities

4

## Recommendations

### Output 3 should focus on:

- ✓ Minimum Requirements to be included and monitored in LDRRMP per LGU type.
- ✓ Standardized processes to conduct nationwide review of LDRRMP and to monitor LDRRMPs' implementation



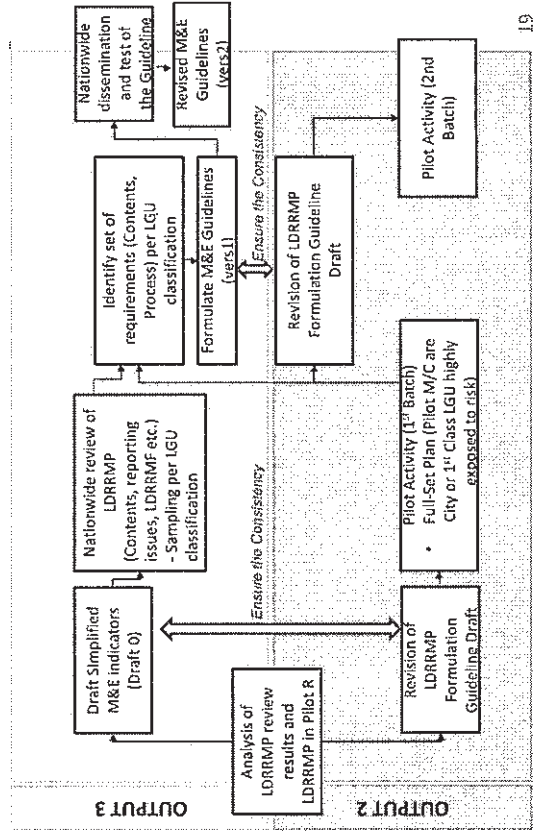
## Recommendations

Resulting from the actual challenges, the M & E system should include the following:

- ✓ Institutionalize the process to enhance the reporting from LGUs to the Regional Offices
- ✓ Provide clear guidelines regarding the submission of reports of LGUs and review processes of NGAs



## Coordination with the activities of Output 2





*[Handwritten signature]*

Thank you!

## Agenda

1. Output 4 briefier
  - (1) Output goal
  - (2) Activity's timeframe of Output 4
  - (3) WG members
2. Baseline survey
  - (1) Current Training system for LDRRMP
  - (2) Training System for other DRR-related initiatives
  - (3) Findings
3. Recommendations for implementation of LDRRM Trainings
4. Next step



# Activity of WG4

December 2020

## Output of the Project

Output 1: Disaster Risk Understanding and Identification (WG1)

Output 2: Local DRRM Plan (WG2)

Output 3: Monitoring and Evaluation (WG3)

Output 4: Trainings and Replication (WG4)

Training system is established in order to replicate the project outcome and conduct training for regions and LGUs in the Philippines.



## WG4 MEMBERS

Philippines Side	Japanese Side
<b>Group Leader</b>	<b>DRRM Training Program</b>
Ms. Rachelle Anne Miranda	Ms. Motoyo ARAKI
<b>OCD</b>	<b>Deputy Team Leader/DRRM Planning 1</b>
Mr. Raffy Z. Lucas (assigned to O1)	Mr. Toshiaki KUDO
Ms. Hyacinth Jeaned Barros (assigned to O2)	<b>DRRM Planning 2</b>
Ms. Hannah Grace Escamilla (assigned to O3)	Ms. Naoko KITAZAWA
Mr. Kenneth Menor, DRGD-PDPS	<b>Project Coordination / Capacity Development</b>
<b>Organizations to involve</b>	Ms. Mariko YAMADA
DILG-LGALGTTDD)	<b>Training Specialist</b>
DRRNet-Phils.	Ms. Christine F. Derafera
CHED	

\*Expanded WG to include members from WG 1-3

## SUMMARY OF FINDINGS

Agency-level Interviews/Focus Group Discussions

Individual capacity assessment of OCD staff

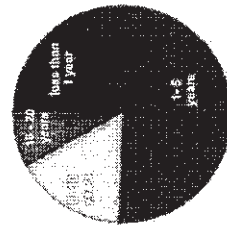
Participant observation to regional LDRRMIP training roll-outs

Secondary data gathering

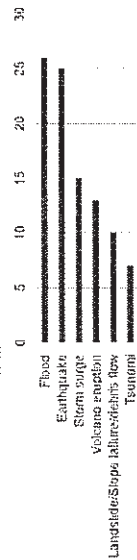
## BASELINE SURVEY: Individual Capacity Assessment

Respondents Profile (Central Office of OCD)  
Number of respondents: 37

Work experience in the field of DRRM



Which hazard do you know MOST about on how to reflect in the Local DRRM Plans?



## BASELINE SURVEY: Current Training System for LDRRMIP



### ANNUAL PLANS AND BUDGET

Human Resources:

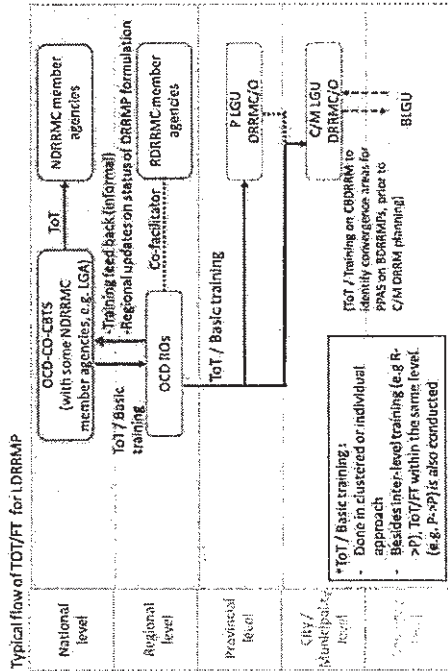
- OCD-CBTS (Capacity-Building & Training Service): approx. 30 personnel
- Regional level: 1-3 personnel/ each regional office in average.

Financial Resources:

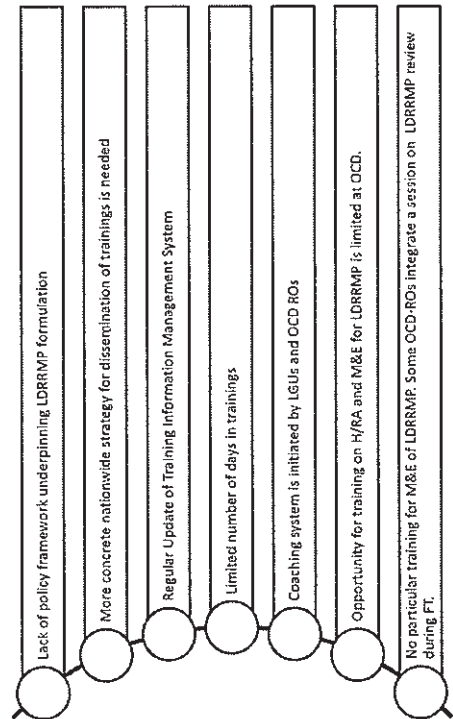
- OCD's annual budget for 2011
- The training based on request from LGU(s) is usually funded by the LGU(s).



## BASELINE SURVEY: Current Training System for LDRRMP



## BASELINE SURVEY: Challenges from the Current LDRRMP Training



## BASELINE SURVEY: Current Training System for LDRRMP

Basic	3-day Basic LDRRMP Training Course
TOT	Basic training + session on practical teaching In 2019: trainers of LDRRMP basic training are required to receive TOT Existing general training for instructors (field of training is not specified)
TFI	2020-(Plan): Participants of Basic training + TFI can become a trainer

Number of Implemented Training		Training of Trainers
Basic		1 (35 trainees)
National	-	15 (480 trainees)
Regional	34 (1034 trainees)	2 (75 trainees)
Local	-	

## BASELINE SURVEY: Training System for other DRR-related initiatives

CDRA	HLURB has no regular budget for CDRA. (HLURB CO funds CDRA activities through projects). DILG has budget for CDRA trainings, but limited. CDRA training tends to be expensive for some LGUs.
REDAS	Difficulty for many LGUs to translate the results of REDAS in their local planning due to the limited technical resource.
CLUP	The conduct of the Full Training Package may require 30 working days spread over more or less twelve (12) months
DRRPP	The conduct of the Full Training Package may require 30 working days spread over more or less twelve (12) months

## BASELINE SURVEY: Training System for other DRR-related initiatives

CDRA is advocated by DILG-BLGD as main tool for CDP preparation, but not made officially mandatory. Limited funds at DILG-CO for covering all LGUs asking for the technical assistance.

CDP

Tedious process for LCCAP formulation. Coaching and mentoring are needed especially for the 4-6<sup>th</sup> class municipalities, but resource persons are limited.

LCCAP

Integration of trainings and plan format of LDRRMP and BDRRMP should be considered (\*OCD CO personnel not yet trained BDRRMP QAS)

BDRRMP

@Database on the results of the trainings should be updated.

CBDRM

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Disaster Risk Reduction and Management Capacity Enhancement Project -Phase2-

## Ideas for training structure

1. Review / Enhance training course design:  
Enhance the training course design which will support guidebooks prepared by WG1 and WG2. Accumulate / enrich good examples of LDRRMP.
2. Hold briefing sessions/orientations:  
OCD-CO explains the core concepts and contents of LDRRMP Guidebook to LGUs. Online tools can be utilized.
3. Implement trainings (Option 1):  
Select high priority LGUs and conduct trainings
4. Implement trainings (Option 2):  
Select low-capacity LGUs (low-income level LGUs) and conduct trainings.
5. Implement LDRRMP training for OCD ROs

14



Disaster Risk Reduction and Management Capacity Enhancement Project -Phase2-

## Recommendations for implementation of LDRRMP Trainings

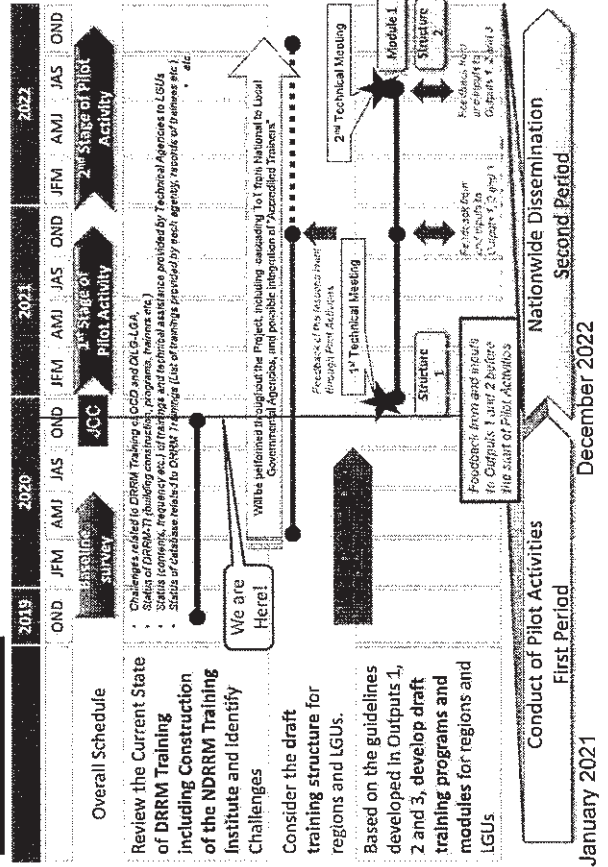
✓ Training Program for LDRRMP could consist of three chronological stages

- Step 1 : HIR A,
- Step 2 : LDRRMP formulation
- Step 3 : M&E

For each step, quality trainers are required.

- 1) Develop strategy for training structure in order to disseminate trainings on LDRRMP formulation efficiently with limited trainers.
- 2) Make module of ToT more practical and develop the system to allow trained participants to contribute to future trainings.
- 3) Ensure the statistical trainers' database more updated and utilized.
- 4) Consider the feasibility of collaboration with other trainings and the standardization of tools and process.
- 5) Consider more effective style of training for LDRRMP formulation (e.g. learning by doing/workshop, training with mentoring, etc.) especially, supporting system (pre& post training) should be well organized.
- 6) Develop training system for M&E.
- 7) For implementation of above matters, underpinning legal framework is needed<sup>3</sup>

## NEXT STEP



(Original)

**List of Proposed Members of Joint Coordination Committee (JCC)**

1. **Chairperson:** Administrator, OCD
2. **Members:**
  - (1) Deputy Administrator, OCD
  - (2) Leader of WG 1:
  - (3) Leader of WG 2:
  - (4) Leader of WG 3:
  - (5) Leader of WG 4:
  - (6) Regional Directors where selected LGUs are located, OCD
  - (7) Representative/s from Department of Public Works and Highways (DPWH)
  - (8) Representative/s from Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
  - (9) Representative/s from Philippine Institute of Volcanology and Seismology (PHIVOLCS)
  - (10) Representative/s from Department of the Interior and Local Government (DILG)
  - (11) Representative/s from Department of Social Welfare and Development (DSWD)
  - (12) Representative/s from Department of National Economic Development Agency (NEDA)
  - (13) JICA Experts
  - (14) Representative/s from JICA Philippines Office
  - (15) Any other personnel appointed by OCD and /or JICA if required
3. **Observers:**
  - (1) Representatives from LGUs which are selected
  - (2) Representative/s from JICA Headquarter
  - (3) Embassy of Japan in the Philippines
  - (4) Any other personnel appointed by OCD and /or JICA if required

**(Proposal / Bold underlined text: Revised Items)**  
**List of Proposed Members of Joint Coordination Committee (JCC)**

**1. Project Administration**

Project Director: Administrator of OCD  
Project Manager: **Director of PDPS-OCD**

**2. JCC Members:**

- (1) Representative/s from Department of Public Works and Highways (DPWH)
- (2) Representative/s from Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
- (3) Representative/s from Philippine Institute of Volcanology and Seismology (PHIVOLCS)
- (4) Representative/s from Department of the Interior and Local Government (DILG)
- (5) Representative/s from Department of Social Welfare and Development (DSWD)
- (6) Representative/s from Department of National Economic Development Agency (NEDA)
- (7) Any other personnel appointed by OCD and /or JICA if required;  
**including representatives from Working Group Members**

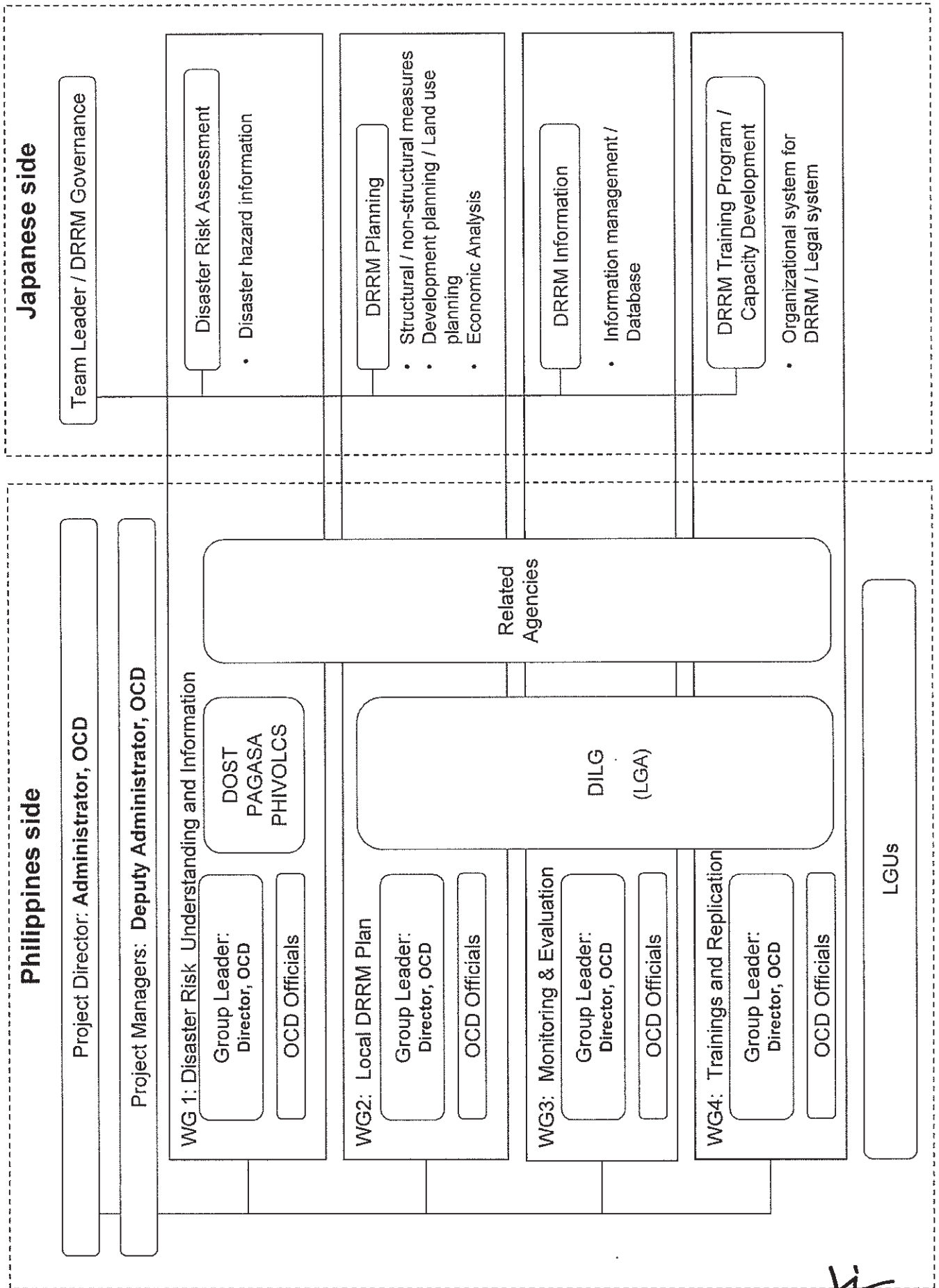
**3. Project Team Members:**

- (1) Leader of WG1: **Representative** from **PDPS-OCD**
- (2) Leader of WG2: **Representative** from **PDPS-OCD**
- (3) Leader of WG3: **Representative** from **PDPS-OCD**
- (4) Leader of WG4: **Representative** from **CBTS-OCD**
- (5) Regional Directors and Officers of OCD-R4A and R7
- (6) JICA Experts

**4. Observers:**

- (1) Representatives from LGUs which are selected
- (2) Representative/s from JICA Headquarter
- (3) Embassy of Japan in the Philippines
- (4) Any other personnel appointed by OCD and /or JICA if required;  
**including representatives from Working Group Members**

(Original) Implementation Structure



**(Proposal) Implementation Structure**  
**Bold underlined text: Revised Items**

<b>Philippines side</b>		<b>Japanese side</b>	
Project Director: <b>Administrator, OCD</b>		Team Leader / DRRM Governance	
Project Manager: <b>Director of PDPS, OCD</b>		<b>Deputy Team Leader/ DRRM planning 1</b>	
WG 1: Disaster Risk Understanding and Information Group Leader: <b>Representative from PDPS-OCD</b> OCD Officials	PAGASA-DOST, PHIVOLCS-DOST, <b>ASTI-DOST, CCC, MGB-DENR, NAMRIA-DENR, PSA</b>	Disaster Risk Assessment • <b>Disaster Risk Assessment</b> • <b>Hazard Information 1 (Earthquake &amp; Volcano.)</b> • <b>Hazard Information 2 (Flood &amp; Sediment Disaster )</b>	
WG2: Local DRRM Plan Group Leader: <b>Representative from PDPS-OCD</b> OCD Officials	BLDG-DILG, BLGS-DILG, CODIX-DILG, LGA-DILG, <b>DRMB-DSWD, BOM-DPWH, PS-DPWH, RBCO-DENR, CCS-DENR, DHSUD, HEMB-DOH, CCC, ULAP, DRR Net Philippines</b>	DRRM Planning • <b>DRRM planning 1</b> • <b>DRRM planning 2</b> • Structural measures • Non-structural measures • Development plan & Land use plan	
WG3: Monitoring & Evaluation Group Leader: <b>Representative from PDPS-OCD</b> OCD Officials	<b>LGRCB-DBM, RDG-NEDA,</b> BLDG-DILG, BLGS-DILG, LGA-DILG, <b>ULAP</b>	DRRM Information • <b>DRRM Information</b>	
WG4: Trainings and Replications Group Leader: <b>Representative from CBTS-OCD</b> OCD Officials	LGA-DILG, <b>CHED, ULAP</b>	DRRM Training Program / Capacity Development • <b>DRRM Training Program</b> • <b>Project Coordination / Capacity Development</b>	
LGUs			• DRRM Technology



Project Monitoring Sheet II (Revision of Plan of Operation)

Version D-1  
Dated October 3, 2019

Project Title: Disaster Risk Reduction and Management Capacity Enhancement Project Phase II	Monitoring											
	Remarks											
	Solution											
Inputs	Issue											
	Achievements											
Expert	Responsible Organization											
	Japan GDP											
Training in Japan	2019											
	2020											
Activities	2021											
	2022											
Sub-Activities	2023											
	2024											
Output 1:	2019											
	2020											
1-1 Review the current state of hazard assessment/information and identify challenges.	2021											
	2022											
1-2 Review the current state of risk assessment/information and identify challenges.	2023											
	2024											
1-3 Consider risk assessment methods so that disaster-related officials can understand local disaster risks and realize disaster risk reduction through countermeasures.	2019											
	2020											
1-4 Set selection criteria and select LGUs in the pilot regions.	2021											
	2022											
1-5 Support the review of risk information in the pilot areas based on the existing hazard/risk assessment by using the risk assessment methods consisted in 1-3.	2023											
	2024											
1-6 Develop draft guidelines for reviewing hazard/risk information.	2019											
	2020											
1-7 Based on the results of 1-4, revise the guidelines developed in 1-6.	2021											
	2022											



Output 2:

Activity	Status		Milestones		Timeline		Resources		Risks		Notes	
	Plan	Actual	Start	End	Start	End	Personnel	Equipment	Cost	Impact	Frequency	Comments
2-1 Review the current state of RDRMPs/LDRMPs and identify challenges.												
2-2 Consider the options of disaster risk reduction measures to reduce human casualties and economic losses based on disaster risk information that should be implemented at each level of region, province, city and municipality.												
2-3 Support the formulation of RDRMPs/LDRMPs in the pilot areas based on the risk assessment conducted in 1-5.												
2-4 Review the related local plans such as COP, CLUP and LCCAP, and support adjustment of RDRMPs/LDRMPs in the pilot areas.												
2-5 Develop draft guidelines for the formulation and revision of RDRMPs/LDRMPs.												
2-6 Based on the results of 1-4, revise the guidelines developed in 2-5.												

Output 3:

Activity	Status		Milestones		Timeline		Resources		Risks		Notes	
	Plan	Actual	Start	End	Start	End	Personnel	Equipment	Cost	Impact	Frequency	Comments
3-1 Review the current state of OCD's information management on RDRMPs/LDRMPs and identify challenges.												
3-2 Consider OCD's information management, monitoring and evaluation system and methods for the formulation, revision and implementation of RDRMPs/LDRMPs.												
3-3 Develop draft guidelines and monitoring and evaluation structure in order to implement the system consolidated in 3-2.												
3-4 Conduct a workshop for all the OCD regional offices on the draft guidelines and monitoring and evaluation structure developed in 3-3.												
3-5 Conduct activities in the pilot area based on the draft guidelines and monitoring and evaluation structure developed in 3-3.												
3-6 Based on the results of 3-4 and 4-1, revise the guidelines and monitoring and evaluation structure developed in 3-3.												



**TO Chief Representative of JICA PHILIPPINES OFFICE**

**PROJECT MONITORING SHEET**

**Project Title:** Disaster Risk Reduction and Management Capacity Enhancement Project -  
Phase II (DRRM-CEP2)

**Version of the Sheet:** Ver. 1.0 (Monitoring Period: October, 2019 - December, 2020)

**Name :** Usec. Ricardo B. Jalad  
**Title :** Administrator, Office of Civil Defense and Executive Director, National Disaster Risk Reduction and Management Council

**Name :** Yoshihiko Uchikura  
**Title :** Team leader / DRRM Governance  
**Submission Date:** : December 10, 2020

**I. SUMMARY**

**1. Progress**

**1.1 Progress of Inputs**

**(1) Dispatch of Japanese Experts**

The following Japanese Experts were dispatched during the monitoring period (From October 2019 to December, 2020).

Assignment	Name	Period of assignment
Team Leader / DRRM Governance	Yoshihiko UCHIKURA	Sept.25 – Oct.4, 2019 Nov.18 – Nov.29, 2019 Jan.19 – Jan.25, 2020
Deputy Team Leader / DRRM Planning 1	Toshiaki KUDO	Sept.29 – Oct.11, 2019 Nov.25 – Dec.15, 2019
DRRM Planning 2	Naoko KITAZAWA	Sept.18 – Oct.13, 2019 Oct.24 – Dec.1, 2019 & Dec.6 – Dec.21, 2019 Feb.3 – Feb.6, 2020 Feb.17 – March 18, 2020
Disaster Risk Assessment	Akihiro FURUTA	Sept.18 – Oct.17, 2019 Nov.18 – Dec.7, 2019 Jan.20 – Feb.8, 2020
Hazard Information 1 (Flood & sediment disaster)	Yusuke YAMAZAKI	Oct.14 – Oct.24, 2019 Nov.4 – Nov.22, 2019 Jan.8 – Jan.22, 2020
Hazard Information 2 (Earthquake & Volcano)	Kenpei KOJIKI	Oct.21 – Nov.19, 2019 Jan.27 – Feb.21, 2020
Structural Countermeasure	Satoshi TAKATA	Sept.30 – Oct.19, 2019
Non-Structural Countermeasure	Daisuke FUJITA	Feb.17 – March 14, 2020

*Disaster Risk Reduction and Management Capacity Enhancement Project - Phase II (DRRM-CEP2)*  
MONITORING SHEET SUMMARY

Assignment	Name	Period of assignment
Development Plan & Land-Use Plan	Yoshizumi GONAI	Nov.25 – Dec.20, 2019 Feb.17 – 21, 2020
DRRM Information	Takuya ITO	-
DRRM Training Program	Motoyo ARAKI	Oct.7 – Nov.1, 2019
DRRM Technology	Shinji IIDA	Nov.24 – Nov.30, 2019
Project Coordination / Capacity Development	Mariko YAMADA	Oct.1 – Oct.25, 2019 Nov.18 – Dec.6, 2019 Jan.20 – Jan.31, 2020

**(2) Assignment of Counterparts**

From the Philippines Side, the Project Director and Project Manager are as follows.

- (a) Project Director: Usec. Ricardo B. Jalad, Administrator of the Office of Civil Defense (OCD) and Executive Director of the National Disaster Risk Reduction and Management Council (NDRRMC)
- (b) Project Manager: Atty. Tecson John S. Lim, Director of the Planning Development Planning Service of the Office of Civil Defense (PDPS-OCD)

There was a change from the Record of Discussions (hereinafter referred to as "R/D") of August 6, 2019, in which the Project Manager was planned to be the Deputy Administrator of OCD.

The list of counterparts from OCD is as follows.

Working Group	Leader	Members
<b>WG 1</b> Disaster Risk Understanding and Information	<b>Leader:</b> Ms. Cheryl Loise T. Leal, DRGD-PDPS	Mr. Relan Jay Asuncion, OS Ms. Deniece Krizia Manding, OS Mr. Kenneth Menor, PDPS Mr. Marvin Arias, PDPS Mr. Raffy Z. Lucas, CBTS
<b>WG 2</b> Local DRRM Planning	<b>Leader:</b> Mr. Manuel R. Nivera, Jr., C, DDS-DPDS	Ms. Cheryl Loise T. Leal, PDPS Mr. Benito Salvador, Jr., PDPS Mr. Renato Libunao, Jr., PDPS Ms. Hyacinth Jeane Barros, CBTS
<b>WG 3</b> Monitoring and Evaluation	<b>Leader:</b> Mr. Benito Salvador, Jr., PDPS	Mr. Robi Jericho De Gracia, PDPS Mr. Emmanuel Balajadia, PDPS Ms. Gia Mae Resaba, PDPS Ms. Hannah Grace Escamilla, CBTS
<b>WG 4</b> Training and Replication	Ms. Roliz Mae Salvador, CBTS (Principal) Ms. Rachelle Miranda, CBTS (Alternate)	Mr. Kenneth Menor, PDPS

DRGD-PDPS: Disaster Risk Governance Division of the Division Policy Development and Planning Service  
 DDS-DPDS: DRRM Development and Standards of the Division Policy Development and Planning Service  
 CBTS-TAD : Training and Advocacy Division of the Capacity-Building and Training Service

*Disaster Risk Reduction and Management Capacity Enhancement Project - Phase II (DRRM-CEP2)*  
MONITORING SHEET SUMMARY

In addition, resulting from the Joint Working Group Meeting held on November 26, 2019, the following organizations were identified as Working Group members.

Organization		Related Working Group
CCC	Climate Change Commission	WG1: Disaster Risk Assessment WG2: LDRRMP Formulation
CHED	Commission on Higher Education	WG4: Training and Replication
DBM-LGRCB	Local Government and Regional Coordination Bureau	WG3: Monitoring and Evaluation
DENR-CCS	Climate Change Service	WG2: LDRRMP Formulation
DENR-MGB / Geo Hazard Division	Mines and Geosciences Bureau	WG1: Disaster Risk Assessment
DENR-NAMRIA	National Mapping and Resource Information Authority	WG1: Disaster Risk Assessment
DENR-RBCO	River Basin Control Office	WG2: LDRRMP Formulation
DHSUD	Department of Human Settlements and Urban Development (Former HLURB)	WG2: LDRRMP Formulation
DILG-BLGD	Bureau of Local Government Development	WG2: LDRRMP Formulation WG3: Monitoring and Evaluation
DILG-BLGS	Bureau of Local Government Supervision	WG2: LDRRMP Formulation WG3: Monitoring and Evaluation
DILG-CODIX	Central Office Disaster Information Coordinating Center (CODIX)	WG2: LDRRMP Formulation
DILG-LGA	Local Government Academy	WG2: LDRRMP Formulation WG3: Monitoring and Evaluation WG4: Training and Replication
DOH-HEMB	Health Emergency Management Bureau	WG2: LDRRMP Formulation
DOST-ASTI	Advanced Science and Technology Institute	WG1: Disaster Risk Assessment
DOST-PAGASA,	Philippine Atmospheric, Geophysical and Astronomical Services Administration	WG1: Disaster Risk Assessment
DOST-PHIVOLCS	Philippine Institute of Volcanology and Seismology	WG1: Disaster Risk Assessment
DPWH - BOM	Bureau of Maintenance	WG2: LDRRMP Formulation
DPWH – PS	Planning Division and PPP	WG2: LDRRMP Formulation
DRRNet-Philippines	-	WG2: LDRRMP Formulation
DSWD-DRMB	Disaster Response Management Bureau	WG2: LDRRMP Formulation
NEDA-RDG	Regional Development Group	WG3: Monitoring and Evaluation
PSA	Philippine Statistics Authority	WG1: Disaster Risk Assessment
ULAP	Union of Local Authorities of the Philippines	WG2: LDRRMP Formulation WG3: Monitoring and Evaluation WG4: Training and Replication

*Li*

## 1.2 Progress of Activities

### (1) Overall Project

#### [0-1] : Support to Conduct Joint Coordination Committee (JCC) Meetings and Progress Explanation

##### a) JCC Meetings

Kick-off and first JCC meetings were held during the monitoring period.

No.	Date	Agenda	Participants
Kick-off Meeting	October 3, 2019	<ul style="list-style-type: none"> <li>• Presentation of DRRM-CEP2 in line with Sendai Framework</li> <li>• Explanation of Draft Work Plan</li> <li>• Presentation of Draft PDM and Format of Monitoring Sheet</li> <li>• Confirmation of Criteria for Selecting Pilot LGUs</li> <li>• Confirmation of Implementation Method of Baseline Survey</li> </ul>	30 participants <ul style="list-style-type: none"> <li>• OCD Central Office</li> <li>• OCD Region IVA</li> <li>• OCD Region VII</li> <li>• PHIVOLCS</li> <li>• LGA</li> <li>• DPWH</li> <li>• DREAMB-DSWD</li> <li>• NEDA</li> <li>• BLGD-DILG</li> <li>• MGB-DENR</li> <li>• JICA</li> <li>• JICA-DRRMCEP2 Project Team</li> </ul>
First JCC	December 10, 2020	<ul style="list-style-type: none"> <li>• Approval of JCC Members</li> <li>• Approval of the proposed Working Group Members for each Output</li> <li>• Approval of the revised Schedule and Activities</li> <li>• Approval of the revised Work Plan, PDM and Format of Monitoring Sheet</li> <li>• Approval of Pilot LGUs</li> <li>• Approval of the Result of Baseline Survey</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>

##### b) Inter-Working Groups Meetings

In addition, two Inter- Working Groups meetings involving Technical Officials from related Agencies were held to check the detailed progress and consider technical issues.

No.	Date	Agenda	Participants
First Inter-WG meeting	November 26, 2019	<Nomination of WG members> <ul style="list-style-type: none"> <li>• For discussion and approval:                             <ul style="list-style-type: none"> <li>(a) Proposed membership of each working group</li> <li>(b) Roles and responsibilities of working group members</li> </ul> </li> <li>• Proposed activities and Updates from each working group</li> <li>• For discussion                             <ul style="list-style-type: none"> <li>(a) Challenges to solve for the Baseline Survey</li> <li>(b) Explanation on Pilot Activities</li> </ul> </li> </ul>	34 participants <ul style="list-style-type: none"> <li>• OCD</li> <li>• PHIVOLCS</li> <li>• ASTI-DOST</li> <li>• DENR-MGB</li> <li>• BLGD-DILG</li> <li>• LGA</li> <li>• NEDA</li> <li>• DPWH</li> <li>• DSWD</li> <li>• JICA Philippine Office</li> <li>• JICA-DRRMCEP2</li> </ul>
Second Inter-WG meeting	December 4, 2020	<JCC Preparation meeting> <ul style="list-style-type: none"> <li>• Explanation on the Revised Activity Schedule</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>

Disaster Risk Reduction and Management Capacity Enhancement Project - Phase II (DRRM-CEP2)  
MONITORING SHEET SUMMARY

No.	Date	Agenda	Participants
		<ul style="list-style-type: none"> <li>• Explanation on the Work Plan, PDM and Format of Monitoring Sheet</li> <li>• Reporting on the Baseline survey results, WG composition, achievements and next steps per WG</li> <li>• Explanation on the Pilot-LGU selection and results</li> </ul>	

c) Periodic Counterparts Meeting

In addition to the continuous coordination meetings conducted by each working group, Counterparts Meeting involving OCD officials and Japanese experts were conducted periodically to share and check the progress of the whole project.

No.	Date	Agenda	Participants
First CP meeting	November 26, 2019	<ul style="list-style-type: none"> <li>• Confirm the activities and target milestones of each WG</li> <li>• Pilot LGU selection process and criteria</li> <li>• Proposed WG members from other agencies</li> <li>• Preparation for the first Counterpart Training in Japan (scheduled in April 2020)</li> </ul>	18 participants
Second CP meeting	June 23, 2020	(Online meeting) <ul style="list-style-type: none"> <li>• Revision of the JICA-DRRMCEP2 Project Schedule</li> <li>• Proposed additional activities to be conducted remotely</li> </ul>	17 participants
Third CP meeting	July 29, 2020	(Online meeting) <ul style="list-style-type: none"> <li>• 1. Revised schedule of the project                             <ol style="list-style-type: none"> <li>(a) Overall schedule</li> <li>(b) Pilot activities</li> <li>(c) Contingency plan</li> </ol> </li> <li>• 2. Selection of pilot areas                             <ol style="list-style-type: none"> <li>(a) Report to NGAs</li> <li>(b) Davao city</li> </ol> </li> <li>• 3. Meeting with related NGAs</li> <li>• 4. Others</li> </ul>	22 participants
Fourth CP meeting	November 13, 2020	(Online meeting) <ul style="list-style-type: none"> <li>• 1. Recapitulation on the last CP meeting (July 29, 2020)</li> <li>• 2. JCC preparation                             <ol style="list-style-type: none"> <li>(a) Remind on the purpose and important issues to be agreed by JCC members</li> <li>(b) Proposed agenda</li> <li>(c) Preparation Status</li> </ol> </li> <li>• 3. Quick updates</li> <li>• 4. Revised Schedule (same as July 29)</li> </ul>	•

(2) Output 1

[1-1] : Review the Current State of Hazard Assessment/Information and Identify Challenges

[1-2] : Review the Current State of Risk Assessment / Information and Identify Challenges

A series of baseline interviews and these follow-ups with related agencies and academic organizations was held in order to review the current status of Hazard Assessment / Information and Risk Assessment / Information and identify challenges.

Date	Agencies and Organizations	Main Subjects
Oct.11, 2019	Baseline interview with DOST/ PHIVOLCS	<ul style="list-style-type: none"> <li>Current Actions by DOST about Hazard Analysis, Disaster Risk Assessment and Development of Related Systems</li> </ul>
Oct.15, 2019	Baseline interview with UP-Resilience Institute	<ul style="list-style-type: none"> <li>Current Status of UP NOAH Project (Flood, Landslide, Storm Surge)</li> </ul>
Oct.16, 2019	Baseline interview with DOST/ASTI	<ul style="list-style-type: none"> <li>Utilization of Satellite Images (PEDRO)</li> <li>Advanced Mapping Technology</li> </ul>
Oct.30, 2019	Baseline interview with DOST/PHIVOLCS	<ul style="list-style-type: none"> <li>REDAS</li> <li>GeoRisk.PH</li> </ul>
Nov.6, 2019	Baseline interview with DENR/MGB	<ul style="list-style-type: none"> <li>Flood and Landslide Susceptibility Maps (1:50,000, 1:10,000)</li> </ul>
Nov.11, 2019	Baseline interview with HLURB	<ul style="list-style-type: none"> <li>CDRA for CLUP</li> </ul>
Nov.11, 2019	Baseline interview with NAMRIA	<ul style="list-style-type: none"> <li>Available Topographic Maps (1:10,000, DEM)</li> </ul>
Nov.13, 2019	Baseline interview with DOST/PAGASA	<ul style="list-style-type: none"> <li>Flood Modeling, Storm Surge Modelling</li> </ul>
Nov.15, 2019	Baseline interview with Municipality of General Mariano Alvarez (GMA)	<ul style="list-style-type: none"> <li>Utilization of the Result of REDAS for CDP, CLUP and LDRRMP</li> </ul>
Nov.19, 2019	Baseline interview with DILG/BLGD	<ul style="list-style-type: none"> <li>CDRA for CDP</li> </ul>
Nov.22, 2019	Baseline interview with DOST/PHIVOLCS	<ul style="list-style-type: none"> <li>Calculation Method of Damages and Losses by REDAS</li> <li>System Modules in Detail</li> </ul>
Dec.6, 2019	Baseline interview with UP-ICE	<ul style="list-style-type: none"> <li>The Result of GMMA RAP</li> <li>Fragility and Vulnerability Curves of Buildings (Seismic Shaking, Flood, Destructive Wind)</li> </ul>
Jan.31, 2020	Baseline interview with DOST/PHIVOLCS	<ul style="list-style-type: none"> <li>Calculation Method of Damages and Losses by REDAS</li> </ul>
Feb.3, 2020	Baseline interview with UP-ICE	<ul style="list-style-type: none"> <li>Fragility and Vulnerability Curves of Buildings</li> <li>How to develop the exposure database</li> </ul>
Feb.7, 2020	Baseline interview with Bacoor City	<ul style="list-style-type: none"> <li>Building Permission System</li> </ul>
Apr.14, 2020	Online Meeting with PAGASA	<ul style="list-style-type: none"> <li>Flood Modeling, Extreme Rainfall Projection using RCP 4.5 Scenario</li> </ul>
Oct.5, 2020	Online Meeting with DENR/MGB	<ul style="list-style-type: none"> <li>Methodology for Developing Flood Susceptibility Map</li> </ul>
Oct.9, 2020	Online Meeting with UP-Resilience Institute	<ul style="list-style-type: none"> <li>A result of Flood Modeling by UP NOAH</li> </ul>
Oct.29, 2020	Online Meeting with DOST/ASTI & PhSA	<ul style="list-style-type: none"> <li>Automated Building Footprint Extraction</li> </ul>

Based on the results from the meetings mentioned above and documents review, the current situation of data, tools and procedures for understanding local disaster risks and selecting



necessary DRR measures in the process of LDRRMP formulation and these major challenges were identified as the following.

1. Available Data of Hazard, Exposure and Vulnerability Utilized for Understanding Local Disaster Risks and Identifying necessary DRR Measures

	Current Situation	Major Challenges
HAZARD	Hazard maps for major natural disasters such as earthquake, tsunami, volcanic eruption, flood, landslide and high tide, which every LGU throughout the country can refer to in the LDRRMP formulation, have been developed and updated by responsible NGAs and academic research institutes.	For gaining better understanding local disaster risks as a process of LDRRMP formulation, there is now a confusion on the side of the LGU on what to use. LGUs need to be guided on how to select suitable hazard maps from the ones that were developed based on the different analytical approaches (e.g. scenario model or probabilistic model) and how to reflect a decrease of hazard impact by any structural countermeasures in the existing hazard maps (e.g. how to show an effect of installing levee in the exiting flood map).
EXPOSURE	Various spatial data about building footprints, land use and land cover are being generated from different sources. Every LGU throughout the county can get them without charge according to each application process. But currently those spatial data doesn't have attribute information and it is required to integrate available statistical sources such as CENSUS data in the spatial data, if population and building information is needed for evaluating disaster risks.	The best option is for LGUs to develop their own exposure data based on the detailed field survey which is recommended to conduct for quantitative disaster impact assessment using REDAS. But most LGUs don't have the capabilities and capacities to do so. As one of the recommendations, the NDRRMC may explore a method to prepare a basic exposure database using CENSUS data and other available data with the Philippine Statistic Authority (PSA).
VULNERABILITY	Vulnerability curves of buildings to seismic shaking, flood inundation and distractive wind (fragility curves of buildings to seismic shaking) have been developed in the GMMA-RAP (Risk Analysis project for Great Metro Mania Area) based on the historical records of past disasters and, experiences and considerations from experts in the country. There are few studies for engineering approaches about vulnerability assessment of buildings, infrastructures and lifelines for each disaster in Philippines.	There is a need to verify the differences of building types and the characteristics produced under GMMA-RAP with each LGU or local area, this is because GMMA-RAP do not represent majority of the LGUs outside of the Greater Metro Mania Area. There is a way to utilize results of vulnerability assessment of buildings, infrastructures and lifelines developed in other counties (e.g. Results in Japan).

2. Current Evaluation Tools and Methods for Disaster Risk Assessment (DRA) Developed by NGAs

	REDAS (Rapid Earthquake Damage Assessment System)	CDRA (Climate and Disaster Risk Assessment)	GeoRisk.PH
Main Developer	<u>DOST/PHIVOLCS</u>	<u>DHSUD (HLURB) for CLUP</u> <u>DILG for CDP</u>	<u>DOST/PHIVOLCS</u>
Main Objective (Initial purpose) for Development	To produce hazard and risk maps immediately after the occurrence of a strong and potentially damaging earthquake.	To mainstream CCA-DRRM in the local plans (CDP, CLUP, LDRRMP, LCCAP). To give findings for analyzing the situation of a concerned LGU from an aspect of impacts of CCA-DRRM.	To provide protocols and platforms to share hazards, exposure and risk information for planning how to reduce the risks for natural hazards.

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	REDAS (Rapid Earthquake Damage Assessment System)	CDRA (Climate and Disaster Risk Assessment)	GeoRisk.PH
Features of Methods	Quantitative damage and loss evaluation using stand-alone software for hazard and risk simulation	Qualitative scoring method using dedicated score charts and matrices. Overlay method using GIS software is applied for calculation of the amount of exposure in each hazard level spatially.	Web-based hazard and risk evaluation. Overlay method based on web-GIS technology is applied for calculation of hazard areas in the concerned LGU.
Current Situation	REDAS is the only official system to enable a quantitative estimation of damage and loss due to natural disasters in Philippines. REDAS is still not popular for Local planning. The result of REDAS has not been reflected to the process of LDRRMP formulation yet. The average number of organizations such as NGAs, LGUs and other research institutes trained by six-day training from 2006 is 10 organizations per year.	CDRA is one of the major tools to indicate vulnerable areas for each exposed elements to climate change and natural disasters using qualitative scoring method. CDRA became popular for mainstreaming CCA-DRRM in CLUP and CDP under the support of DHSUD (HLURB) and DILG. Based on the existing training material for LDRRMP formulation developed by OCD-CBTS, CDRA is recommended as a tool for understanding local disaster risks.	GeoRisk.PH is currently under development. It will be possible for LGUs to gain the summary of hazard and risk information in own administrative area directly from web-site of GeoRisk.PH without requiring enhanced GIS knowledge and skills.
Major Challenges	There is a big challenge in the aspect of popularization of REDAS utilization for local planning, because it's difficult for PHIVOLCS to conduct a lot of times of the training in a year even though all uses of REDAS have to take the training. Since appropriate person with much knowledge about REDAS is required for operation, LGUs have to develop a human resource or employ an expert.	It is not adequate for CDRA to estimate quantitative disaster damage and economic losses and effects of mitigation by countermeasure. Since appropriate person with much knowledge about CDRA is required for operation, LGUs have to develop a human resource or employ an expert.	As of now, GeoRisk. PH has a limited function to calculate an affected area and a number of affected population in the area by barangay at the minimum. The simplicity of function is one of the advantages of GGeoRisk.PH, but it is not adequate for LGU if they want to use an original data about hazard and exposure and estimate physical damages and economic losses based on those own database.

3. Typical Outputs of Disaster Risk Profiles in Existing LDRRMPs

Current Situation	Major Challenges
The Disaster Risk Profiles for each natural disaster is organized using different DRA approaches. But oftentimes it is observed that the results of Disaster Risk Profiles are not translated or integrated in the LGU's identified goals, outcomes in the current LDRRMPs. DRA has not been utilized for identification and prioritization of DRRM measures in the process of formulating LDRRMPs yet.	It is necessary to clarify the path how the results of Disaster Risk Profiles will be reflected in the formulation of LDRRMP, so that these results are closely linked to the selection of appropriate DRRM Measures.

**[1-3] : Consider Risk Assessment Methods so that Disaster-Related Officials (DRRM Officials) can Understand Local Disaster Risks and Realize Disaster Risk Reduction through Countermeasures.**

Based on the result of activities [1-1] and [1-2], the WG1 member has been discussing a practical DRA procedure which is closely linked to setting DRRM strategies and listing necessary DRRM countermeasures at the stage of LDRRMP formulation. From the Japanese experience applying DRA method to disaster related planning, the JICA Expert Team proposed a procedure of Damages and Losses Evaluation (DLE) as one of DRA methods for LDRRMP formulation. Then, WG1 member is exploring a feasible way to add the DLE in the process of disaster risk profiles and selection of necessary DRRM measures with due considerations to keeping a better relationship with current approaches such as CDRA for identifying disaster characteristics in a target LGU through a series of the internal meeting shown as the following.

Date		Main subject
Sep. 14, 2020	1 <sup>st</sup> WG1 Internal Meeting	<ul style="list-style-type: none"> <li>• Introduction of proposed damages and losses evaluation procedure as a DRA method for LDRRMP formulation</li> </ul>
Oct. 2, 2020	2 <sup>nd</sup> WG1 Internal Meeting	<ul style="list-style-type: none"> <li>• How to create a relationship between WG1 and WG2</li> <li>• How to reflect a result of DLE to set a DRRM Strategy and select priority countermeasures</li> </ul>
Nov.9, 2020	3 <sup>rd</sup> WG1 Internal Meeting	<ul style="list-style-type: none"> <li>• Relationship between current DRA methods and Damages and Losses Evaluation</li> <li>• Example of DLE in case of seismic shaking and flood</li> </ul>
Nov.24, 2020	Consultation Meeting with DOST/PHIVOLCS	<ul style="list-style-type: none"> <li>• Possibility to utilize REDAS as a tool of DLE for LDRRMP formulation</li> </ul>

The WG1 member will continue consultation meetings with other related agencies to gain the consensus about adapting the DLE in the formulation of LDRRMP through the technical WG activity.

**[1-4] : Set Selection Criteria and Select LGUs in the Pilot Regions.**

In order to select Pilot LGUs in Regions 4A and 7, the following set of criteria were set.

<b>Province</b>	<ul style="list-style-type: none"> <li>• Good timing of PDRRMP review and revision according to PDRRMOs</li> <li>• Accessibility of LGU</li> <li>• High socio-economic development potential</li> <li>• High exposure to multi-hazard (flood, earthquake, liquefaction, etc)</li> <li>• Recommendation of OCD-RO</li> <li>• Avoidance of duplication with existing efforts and programs</li> </ul>
<b>City/Municipality</b>	<ul style="list-style-type: none"> <li>• Consideration of the "Timing" of LDRRMPs' revision</li> <li>• Accessibility of LGU</li> <li>• Socio-economic potential</li> <li>• Potential hazard (with high exposure to "multi-hazard")</li> <li>• Recommendation of PDRRMO</li> </ul>

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In order to collect information related to the candidates LGUs, initial discussions were held such as follows.

Date		Milestones
Nov. 28, 2019	Field Visit in OCDRIV-A	<ul style="list-style-type: none"> <li>Presented the JICA-DRRMCEP2</li> <li>Conducted additional data gathering from the region</li> <li>Visited LGU of Los Banos for DRRM programs and projects</li> </ul>
Dec. 12, 2019	Field Visit in OCDRVII	<ul style="list-style-type: none"> <li>Presented the JICA-DRRMCEP2</li> <li>Consultation with the Provinces of Cebu, Bohol and Siquihor</li> </ul>
Feb. 5, 2020	Field visit to LGU of Cavite	<ul style="list-style-type: none"> <li>Presented the JICA-DRRMCEP2</li> <li>Consultation with the Province of Cavite</li> </ul>
Feb. 21, 2020	Field visit to LGU of Laguna	<ul style="list-style-type: none"> <li>Presented the JICA-DRRMCEP2</li> <li>Consultation with the Provinces of Laguna</li> </ul>

Based on the consultations with OCD, related NGAs, LGUs and JICA, and by reflecting the criteria described above, the Project Team has selected the Provinces of Laguna and Bohol, City of Calamba and Municipality of Tubigon to conduct the 1st stage of pilot activities.

MOAs between the Provinces of Laguna and Bohol, Calamba City and the Project Team are being agreed in the near future. Regarding the Municipality of Tubigon, the MOA has already been signed by the Mayor in November, 2019.

Once the MOAs are exchanged, the Project Team will coordinate with Pilot LGUs in order to prepare the Pilot Activities (for example, to start the analysis and mapping of basic data, related plans etc).

**[1-5] : Support the Review of Risk Information in the Pilot Areas based on the Existing Hazard / Risk Assessment by Using the Risk Assessment Methods considered in [1-3].**

Initial data collection and analysis have started by using the data collected during the baseline survey. Detailed assessment of the existing hazard and risk based on basic information related to exposure database such as statistical data, building inventory, land-use and others managed by LGUs will officially start after the MOA agreement from Pilot LGUs.

The two-time REDAS online trainings were held on the following with attendance from OCD-R 4A and OCD-R7 with OCD headquarters. Through the trainings, DLE of seismic shaking was carried out facilitated by REDAS Team from DOST/PHIVOLCS using the Barangay-wise exposure database in Laguna Province and Bohol Province respectively. These results of DLE by REDAS can be directly utilized for the risk profiling on seismic shaking in the pilot area.

/Date		Target Area / Participants
Aug. 25 - 27, 2020	1 <sup>st</sup> Batch REDAS Online Training	Laguna Province / OCD-PDPS, CBTS, OADR4A, JICA Expert Team
Sep. 8 - 10, 2020	2 <sup>nd</sup> Batch REDAS Online Training	Bohol Province / OCD-OS, OADR7 and others

After the online trainings, the WG1 member requested REDAS Team to conduct further DLE focus to other type of hazards such as tsunami, flood, and destructive wind in addition to seismic shaking. REDAS Team accepted this request and promised that they will try to do it by the end of 2020.

**[1-6] : Develop Draft Guidelines for Reviewing Hazard / Risk Information.**

As a result of consideration of suitable DRA procedure for each hazard item in the activity [1-3], the first draft will be developed by the WG1 member before beginning the 1st stage of pilot activity in Laguna Province and Bohol Province.

**(3) Output 2**

**[2-1] : Review the Current Status of RDRRMPs/LDRRMPs and Identify Challenges**

A series of consultation meetings with related agencies was held in order to review the current status of Regional and Local DRRMPs and identify challenges.

Date		Milestones
Nov.12, 2019	Baseline interview with HLURB	<ul style="list-style-type: none"> <li>Collect information on CLUP formulation process, challenges to cascade guidance to LGUs etc.</li> </ul>
Nov.19, 2019	Baseline interview with DPWH	<ul style="list-style-type: none"> <li>Obtained information on DRRM Programs and Projects of DPWH (Earthquake Management and Resiliency Program, West Valley Fault Vulnerability Assessment, post-rehabilitation projects, compliance, etc.)</li> </ul>
Nov.21, 2019	Baseline interview with NEDA	<ul style="list-style-type: none"> <li>Obtained information on the ff: TA for DRR-CCA mainstreaming in PDPFP; status of PDPFP; and review process and monitoring PDPFP</li> </ul>
Nov.29, 2019	Baseline Interview with DENR-CCS	<ul style="list-style-type: none"> <li>Obtained information on the Risk Resiliency and Sustainability Program, DRRM-CCA capacity building, funding</li> </ul>
Dec.6, 2019	Baseline Interview with DENR-RBCO	<ul style="list-style-type: none"> <li>To collect information on the River Management Plans of major River Basins in Region 4A and 7.</li> </ul>
Dec. 17, 2019	Baseline Interview with DILG	<ul style="list-style-type: none"> <li>Shared possible areas on harmonization of LDRRMP and LCCAP</li> </ul>
March 3, 2020	Baseline Interview with DPWH	<ul style="list-style-type: none"> <li>Collect information on building design standards</li> </ul>
June 18, 2020	Online Meeting with DOH	<ul style="list-style-type: none"> <li>Discussed the integration of DRRM-H in the LDRRMP</li> </ul>
Oct.9, 2020	Online Meeting with DPWH	<ul style="list-style-type: none"> <li>Discussed the Stage 3 on DRRM Measures planning of the LDRRMP Guidebook</li> </ul>

Based on the results from the consultation meetings mentioned above and documents review, the following five major challenges related to LDRRMP formulation were identified.

1. Low vertical and horizontal linkage with other related plans => Difficulty to formulate applicable and comprehensive DRRMP
2. Unclear targets in short and midterms => Difficulty to formulate realistic DRRMP
3. Low consideration on measures to reduce disaster risk itself => Difficulty to formulate effective DRRMP
4. Low priority on DRRM => Insufficient or inadequate budget to implement DRRM measures

5. Unclear guides and rules on LDRRMP and low dissemination of guidelines to LGUs => Challenges for LGUs to formulate and implement DRRMP complying NGAs' requirements

Regarding RDRRMP, further considerations will be done by reflecting the Updated NDRRMP.

**[2-2] : Consider DRRM Countermeasures based on Disaster Risk Information / Consider the Options of Disaster Risk Reduction Measures to Reduce Human Casualties and Economic Losses based on Disaster Risk Information that should be implemented at each level of Governance (Nation, Region, Province, City and Municipality).**

Resulting from [2-1], a list of the possible DRRM measures, including both structural and non-structural measures, to be implemented by each level of Governance (Nation, Region, Province, City and Municipality) was considered and will be consolidated based on further consultations with the Pilot LGUs and WG members.

**[2-3] : Support the Formulation of RDRRMPs/LDRRMPs in the Pilot Areas based on the Risk Assessment Conducted in [1-5].**

Initial data collection and analysis have started by using the data collected during the baseline survey. Deepen discussion on specific issues such as funding resources of DRRM measures will officially start after the MOA agreement from Pilot LGUs.

**[2-4] : Review the Related Local Plans such as CDP, CLUP and LCCAP, and Support Adjustment of RDRRMPs/LDRRMPs in the pilot areas.**

Same as [2-3].

**[2-5] : Develop Draft Guidelines for the Formulation and Revision of RDRRMPs/LDRRMPs.**

The first draft was prepared and shared to OCD-Regional Planning Officials on November 19, 2020, as one session of the Planning Family Conference. The Draft is planned to be shared to other WG member agencies, in December.

The draft will be consolidated by reflecting the feedback from OCD officials and related agencies.

#### (4) Output 3

**[3-1] : Review the Current State of OCD's Information Management on RDRRMPs/LDRRMPs and Identify Challenges.**

A series of consultation meetings with related agencies was held in order to understand the current status of information management DRRMPs in the Philippines, and identify challenges.

Date		Milestones
Oct.18, 2019	Baseline interview with LGA	<ul style="list-style-type: none"> <li>Collect information on LGA Monitoring and Evaluation System on DRR-CCA</li> </ul>
Nov.6, 2019	Roundtable Discussion with OCD Regional Directors – I, III, IVA, V, VI, VII, CAR, MIMAROPA	<ul style="list-style-type: none"> <li>Presented the JICA-DRRMCEP2</li> <li>Presented initial results of the OCDR baseline survey</li> <li>Obtained positive experiences, gaps and challenges, and immediate actions</li> </ul>

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Date		Milestones
		<ul style="list-style-type: none"> <li>Facilitated sharing of the different regions on LDRRMP Review</li> </ul>
Nov.20, 2019	Baseline interview meeting with DBM	<ul style="list-style-type: none"> <li>Obtained information about the current processes and challenges on the LDRRMF preparation, approval, and utilization</li> </ul>

In addition, the results of the LDRRMPs review conducted by OCD-Regional offices, COA audit reports from 2014 to 2018, LDRRMF Utilization Reports of Regions IV-A and VII were reviewed.

Based on the results from the consultation meetings mentioned above and documents review, the following five major challenges related to LDRRMP formulation were identified.

- Difficulties to conduct the review itself, because the guides were unclear and consequently the review process and checkpoints differ from each Region;
- Difficulties to assess the implementation status because of the low reporting from LGUs.

**[3-2] : Consider OCD's Information Management, Monitoring and Evaluation System and Methods for the Formulation, Revision and Implementation of RDRRMPs/LDRRMPs.**

Based on the reflections of [3-2], WG3 recognized that it is fundamental to: 1) Provide clear guides on what is required (WG2) and how to review those requirements (WG3) and, 2) Identify the process and agreement needed to conduct M&E of the formulation and implementation status of LDRRMP.

These two aspects are strongly linked with the Guidebook of WG2 developed in [2-5]. Therefore, WG3 members are coordinating with WG2 members to draft the Stage 5 to Develop a Results-Based Monitoring & Evaluation Plan of the Guidebook of WG2.

**(5) Output 4**

**[4-1] : Review the Current State of DRRM Training including Construction of the NDRRM Training Institute and Identify Challenges.**

A series of consultation meetings with related agencies was held in order to understand the current status of trainings related to LDRRMP in the Philippines, and identify challenges.

Date		Milestones
Oct.10, 2019	Baseline interview with DILG-LGA	<ul style="list-style-type: none"> <li>Presentation of CEP2</li> <li>Hearing current situation of the support for LGUs</li> <li>Request for Baseline survey</li> </ul>
Oct.18, 2019	Baseline interview with OCD-CBTS	<ul style="list-style-type: none"> <li>Interview for baseline survey</li> </ul>
Oct.23, 2019	Baseline interview with DILG-LGA	<ul style="list-style-type: none"> <li>Interview for baseline survey</li> </ul>
Oct.23, 2019	Baseline interview with OCD-CBTS	<ul style="list-style-type: none"> <li>Interview for baseline survey</li> </ul>
Oct.31, 2019	Baseline interview with NGO-CPDFI	<ul style="list-style-type: none"> <li>Interview for baseline survey</li> </ul>
Nov.12, 2019	Baseline interview with HLURB CO	<ul style="list-style-type: none"> <li>Interview for baseline survey</li> </ul>
Nov.18, 2019	Baseline interview with DOST-PAGASA	<ul style="list-style-type: none"> <li>Interview for baseline survey</li> </ul>

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Date		Milestones
Nov.19, 2019	Baseline interview with DILG-BLGD, LDPD	<ul style="list-style-type: none"> <li>• Interview for baseline survey</li> </ul>
Nov.21, 2019	Baseline interview with NEDA-RDS	<ul style="list-style-type: none"> <li>• Interview for baseline survey</li> </ul>
Nov.28, 2019	Baseline interview with Los Baños, Laguna	<ul style="list-style-type: none"> <li>• Interview for baseline survey</li> </ul>
Nov.28, 2019	Baseline interview with OCD-R4A	<ul style="list-style-type: none"> <li>• Interview for baseline survey</li> <li>• Hearing current situation for conducting training</li> </ul>
Nov.29, 2019	Baseline interview with NGA-DENR	<ul style="list-style-type: none"> <li>• Interview for baseline survey</li> </ul>
Dec.12, 2019	Baseline interview with OCD-R7	<ul style="list-style-type: none"> <li>• Interview for baseline survey</li> <li>• Hearing current situation for conducting training</li> </ul>
Dec.12, 2019	Baseline interview with OCD-R7 (Ponte)	<ul style="list-style-type: none"> <li>• Interview for baseline survey</li> </ul>
Dec.12, 2019	Baseline interview with OCD-R7 (Villaflores)	<ul style="list-style-type: none"> <li>• Interview for baseline survey</li> </ul>
Dec.12, 2019	Baseline interview with Provincial Bohol	<ul style="list-style-type: none"> <li>• Interview for baseline survey</li> </ul>
Dec.13, 2019	Baseline interview with HLURB-CVR	<ul style="list-style-type: none"> <li>• Interview for baseline survey</li> </ul>
Dec.19, 2019	Baseline interview with DSWD-DRRMB	<ul style="list-style-type: none"> <li>• Interview for baseline survey</li> </ul>
Jan.23, 2020	Baseline interview with NGO-RWAN	<ul style="list-style-type: none"> <li>• Interview for baseline survey</li> </ul>
Jan.27, 2020	Baseline interview with UP-SURP	<ul style="list-style-type: none"> <li>• Interview for baseline survey</li> </ul>
Feb.6, 2020	Baseline interview with LGU-Cavite	<ul style="list-style-type: none"> <li>• Interview for baseline survey</li> </ul>
May.12, 2020	Update information OCD CBTS	<ul style="list-style-type: none"> <li>• Update of the training situation</li> </ul>
Jun.3, 2020	Update of the progress OCD PDPS (On-line Mtg)	<ul style="list-style-type: none"> <li>• Update of the progress</li> </ul>
July.1, 2020	Baseline interview with PHIVOLCS-REDAS	<ul style="list-style-type: none"> <li>• Interview for baseline survey</li> </ul>
July.28, 2020	Preliminary meeting OCD CBTS	<ul style="list-style-type: none"> <li>• Point 1: Consensus of findings of the baseline survey.</li> <li>• Point 2: Capacity Assessment (Individual)</li> <li>• Point 3: Outline of additional study in Japan.</li> </ul>
Nov.9, 2020	Progress confirmation OCD-WG4	<ul style="list-style-type: none"> <li>• Confirmation on the schedule of C/P meeting and JCC</li> <li>• Preparation of presentation for JCC</li> <li>• Update on ICA response collection</li> </ul>
Nov.19, 2020	Progress confirmation OCD-WG4	<ul style="list-style-type: none"> <li>• Explanation of survey results on the Japanese training system for local DRR-related plan formulation. (Arakis-san)</li> <li>• Discussion on some updates for the JCC presentation</li> <li>• Other preparation for JCC</li> </ul>

Based on the results from the consultation meetings mentioned above and documents review, the following issues for implementation of LDRRM training were organized.

1. Develop strategy for training structure in order to disseminate trainings on LDRRMMP formulation efficiently with limited trainers. (including goal setting)
2. Make module of ToT more practical and develop the system to manage participants so that the participants certainly contribute to future trainings.



3. Ensure the statistical trainers' database more updated and utilized.
4. Consider the feasibility of collaboration with other trainings and the standardization of tools and process. (e.g. collaboration with CDRA/REDAS for the H/RA trainings, integration among LDRRMP, BDRRMP and CBDRRM)
5. Consider more effective style of training for LDRRMP formulation (e.g. learning by doing/workshop, training with mentoring, etc.) especially, supporting system (pre& post training) should be well organized.
6. Develop training system for M&E.
7. For implementation of above matters, underpinning legal framework is needed

In addition, the survey results on the Japanese training system for local DRR-related plan formulation was shared to the member of WG4.

## **2. Delay of Work Schedule and/or Problems (If any)**

### **2.1 Details**

On-site activities are suspended from March 2019 due to COVID-19 Situation, and some activities are on delay due to the difficulties to consult and coordinate related agencies under Response Operations against COVID-19.

In addition to COVID-19, the Philippines were affected by a series of natural disasters (such as Typhoon "Ambo", Masbate Earthquake, Typhoon "Ulysses", etc.) activating the response operations of N/RDRRMC members and LGUs.

Due to the occurrence of such events affecting both Japanese and Philippines sides, the overall project schedule was revised.

### **2.2 Cause**

Written in 2.1.

### **2.3 Actions to be taken**

In order to ensure the continuity of the Project Activities under such circumstances, the continuous coordination between Japanese Experts, Officials from OCD and other related organizations is fundamental. The switching from on-site (face to face) basis to remote-basis of some activities including consultation meetings are already done.

Regarding the preparation of pilot activities, the Regional Offices of OCD are coordinating closely with LGUs.

### **2.4 Roles of responsible Persons/Organization (JICA, Government of the Philippines, etc.)**

N/A



### **3. Modification of the Project Implementation Plan**

#### **3.1 Plan of Operation (PO)**

Due to the circumstances explained in 2.1, the overall schedule (including the addition of those to be conducted remotely) will be revised once the situation become clearer.

#### **3.2 Other Modifications on Detailed Implementation Plan**

The Change of the proposed Project Manager from the Philippines Side need to be reflected into the R/D and PDM (title of the project, duration, project site(s), target group(s), implementation structure, overall goal, project purpose, outputs, activities, and input).

### **4. Preparation of the Government of the Philippines toward after the Completion of the Project**

N/A

## **II. PROJECT MONITORING SHEETS I & II**

As Attached







Activity	Plan	Actual	Year 2010												Remarks	Issue	Solution			
			2010			2011			2012			2013						2014		
			Plan	Actual	Remarks	Plan	Actual	Remarks	Plan	Actual	Remarks	Plan	Actual	Remarks				Plan	Actual	Remarks
4-3 Based on the guidelines developed in 1-6, 2-5 and 3-3, develop draft training programs and modules for regions and LGUs.																				
4-4 Conduct a workshop for all the OCD regional offices on the draft training programs and modules developed in 4-3.																				
4-5 Conduct training in the pilot areas based on the draft structures for training, monitoring and evaluation developed in 3-3 and 4-2 and the draft training programs and modules.																				
4-6 Based on the results of 4-4, revise the training structure developed in 4-2 and the training program and modules developed in 4-3.																				
4-7 Develop the training implementation plan (including timeline, budget, training of trainers, etc.) in order to replicate the project outcomes and conduct DRRM training for regions and LGUs in the Philippines.																				
<b>Duration / Phasing</b>																				
<b>Monitoring Plan</b>																				
Monitoring																				
Click-off Meeting / Joint Coordinating Committee																				
Set-up the Detailed Plan of Operation																				
Submission of Monitoring Sheet																				
Monitoring Mission from Japan																				
<b>Reports/Documents</b>																				
Work Plan / Progress Report																				
Project Completion Report																				
<b>Public Relations</b>																				



## SUMMARY OF DISCUSSIONS (SOD)

### JICA DRRMCEP 2 2<sup>nd</sup> Joint Coordination Committee (JCC) Meeting Teleconference (via Zoom) 4 February 2022 at 10 AM

#### INTRODUCTION

The 2nd Joint Coordination Committee (JCC) Meeting of the JICA Disaster Risk Reduction and Management Capacity Enhancement Project Phase II (DRRMCEP2) was held via teleconference using the Zoom application on 4 February 2022 at 10 AM. The meeting was presided by Director Susana G. Juangco, and was attended by the designated focal persons from the selected NDRRMC member agencies, OCD Services, JICA and JICA Expert team.

1. The list of participants appears as **ANNEX 1**.

#### AGENDA ITEM 1: Opening Remarks

2. Mr. Yanagiuchi, Deputy Resident Representative of JICA Philippines office (JICA) presented opening remarks.

#### AGENDA ITEM 2: Project's updates

3. Ms. Terteen Omana (DRRMCEP2) explained the salient points of the target LDRRMP under the DRRMCEP2 Project. The presentation appears as **ANNEX 2**.
4. Ms. Kitazawa (DRRMCEP2) presented the purpose of this project revised the *overall schedule and outline of Pilot Activities Stage 1*; the presentation appears as **ANNEX 2**.

#### AGENDA ITEM 3: Selection of Stage 2's Pilot LGUs

5. Ms. Kitazawa (DRRMCEP2) presented the selection criteria and results of Stage 2's Pilot LGUs **ANNEX 2**.

#### AGENDA ITEM 4: Updates of each WG

6. Ms. Cheryl Leal (OCD) presented the overview of activities for WG1 (Disaster Risk Assessment); the presentation appears as **ANNEX 3**.
7. Ms. Ma. Cristine Lee (OCD) presented the overview of activities for WG2 (LDRRMP Formulation); the presentation appears as **ANNEX 4**.
8. Ms. Raquel de Leon (OCD) presented the overview of activities for WG3 (LDRRMP M and E); the presentation appears as **ANNEX 5**.
9. Ms. Lorelei Bendijo (OCD) presented the overview of activities for WG4 (Training and Replication); the presentation appears as **ANNEX 6**.

**AGENDA ITEM 5: Summary of agreements and Next Steps**

10. Ms. Cheryl Leal (OCD) summarized the achievements and next steps of each output

**Questions/ Clarifications**

**[WG1]**

11. NEDA representative, Dir. Remedios Endencia requested that the TG provide clarification on the term "damage and losses", which Dr. Leyo Bautista of PHIVOLCS provided the explanation on the term as the result of the calculated physical damage based on the use of assessment tools such as REDAS and GeoRiskPh.
12. ULAP Exe. Dir. Bernardino Sayo mentioned that the TG may also consider including the capacity of the LGUs to respond to disasters in disaster risk assessment.
13. DOH-HEMB Dr. Meredith Afuang inquired if the TG included the health-related risk assessment they have in the draft TG. Ms. Geraldine Santos (DRRMCEP 2) responded that it is not included but noted on the clarification.
14. PHIVOLCS Dr. Art Daag also mentioned that all updated hazard maps are disseminated to the LGUs and in the GeoRiskPh website.

**[WG2]**

15. Concerning Dr. Afuang's (DOH-HEMB) question, Ms. Cheryl Leal (OCD) also explained that the sectoral issues are also tackled in the LDRRMP through the SWOC.
16. Ms. Cristina Lee (OCD) added to Ms. Leal's explanation that references were included in the guidebook. According to Ms. Lee, a meeting with DOH, DSWD, and DILG shall be conducted to clarify which specific tools or components should be emphasized. She reiterated that the DRRM-H is considered in the LDRRMP Formulation Guidebook.

**[WG3]**

- None -

**[WG4]**

- None -

**SUMMARY OF AGREEMENTS**

The Summary of Agreements include the following:

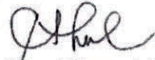


AGENDA	Agreements/ Recommendation	OPR
Agenda 1 – Update on the Project	The JCC was updated on the revised schedule and activities of the Project, including the pilot activities under the first stage of implementation with a focus on the case of the Municipality of Tubigon.	All
Agenda 2 – Selection of pilot LGUs	<ul style="list-style-type: none"> <li>• The Project to consider the inclusion of activities promoting high public awareness on the role of the community or household level in the implementation of the local DRRM plans.</li> <li>• For consideration in the process of LDRRMP formulation.</li> </ul>	WG 2
Agenda 3 – Updates from the Working Groups	<p><b>Working Group 1 - DRA</b></p> <ul style="list-style-type: none"> <li>• Clarify the term "damage and losses" as the result of the calculated physical damage based on the use of assessment tools such as REDAS and GeoRiskPh</li> <li>• Noted on the consideration of the capacity of the LGUs to respond to disasters in disaster risk assessment</li> <li>• Noted the inclusion of health-related risks in the DRA</li> </ul>	WG1
	<p><b>Working Group 2 - LDRRMP Form</b></p> <ul style="list-style-type: none"> <li>• Noted the inclusion of health-related risk in Local DRRM Planning</li> </ul>	WG2
Others	<ul style="list-style-type: none"> <li>• Recommended the inclusion of developing of a dashboard for easy data visualization, for decision-making for provision of necessary Intervention</li> </ul>	OCD, CHED, ULAP

**CLOSING & ADJOURNMENT**


17. Ms. Aya Goho (JICA headquarters) delivered the closing on behalf of Mr. Satoshi Nakamura, (JICA headquarters) presented concluding remarks.
18. There being no other matters, the Meeting was adjourned at 12:00 NN the same day.

Prepared by:





**Ms. Cheryl Loise T Leal**  
AC, DRGD

Recommending Approval:



**Dir. Susana G. Juangco, RN, MPH**  
D, PDPS  
Project Manager, DRRM-CEP 2

APPROVED:



**USEC. RICARDO B JALAD**  
Administrator, OCD  
Project Director, DRRM CEP 2

**Mr. Yoshihiko Uchikura**  
Team leader, DRRM-CEP2

Witnessed

**Mr. Masanari Yanagiuchi**  
Deputy Resident Representative of JICA  
Philippines



JICA Expert Team

Disaster Risk Reduction and Management Capacity Enhancement Project- Phase II (DRRMCEPII)  
 c/o Office of Civil Defense (OCD), Camp General Emilio Aguinaldo, Quezon City, Philippines

ANNEX 1

LIST of PARTICIPANTS (3<sup>rd</sup> Joint Coordination Committee on February 8, 2023) On-site and Teleconference (via Zoom)

	Institution	Division	Name	On-site
1.	BATANGAS PROVINCE	Batangas-PDRRMO	Allissa Ramos	Online
2.			Niño Ruiz	Online
3.			Arvee	Online
4.	BOHOL PROVINCE	Tubigon- MDRMO	Juliet Bulilan	Online
5.			Tiara Lourdes	Online
6.	CALAMBA CITY	LDRRMD	Katherine Tacana	Online
7.	CCC	DMO II	Rafael Jumawid	Online
8.	DAVAO CITY	CDRRMO	Daphne	Online
9.			Annabelle Lugo	Online
10.			Astred Cajes	Online
11.			Vincent Calatrava	Online
12.	DBM		Mary Ann Dela Vega	Online
13.			Mary Rose Aguilar	Online
14.	DENR	MGB	Alvin Fernando	Online
15.			Ed Aguinaldo	Online
16.			Mitch Mendoza	Online
17.			Ruth Madrideo	Online
18.			Nelson V. Gorospe	Online
19.		RBCO- Executive Director	Angela Mamuyac Allan Tabell	Online
20.	DILG	BLDG	Jedd Castillo	Online
21.			Kristine Carmen Diones	Online
22.			Reymark Tablanza	Online
23.		BLGS	Elmer Tomagan	Online
24.		Director	Allan Tabell	Online
25.			Butch Kevin Adovas	Online
26.			Elbert Hibionada	Online



JICA Expert Team

Disaster Risk Reduction and Management Capacity Enhancement Project- Phase II (DRRMCEP II)  
 c/o Office of Civil Defense (OCD), Camp General Emilio Aguinaldo, Quezon City, Philippines

ANNEX 1

	Institution	Division	Name	On-site
27.			Roblin Lim	Online
28.		PAGASA	Salvador Javier	Online
29.	DOST	PHIVOLCS	Vivian Aggasid	Online
30.			Arturo Daag	Online
31.			Leyo Bautista	Online
32.	DPWH	BOM	Bryan Thelmo	Online
33.		Director	Melvin Navarro	Online
34.	DRRNetPhils		Cora Jazmines	Online
35.	DRRMCEP2		Armi Peregrino	On-site
36.			Gerlie Santos	On-site
37.			Keisuke Imada	Online
38.			Motoyo Araki	On-site
39.			Naoko Kitazawa	On-site
40.			Ria Toquero	Online
41.			Takuya Ito	On-site
42.			Terteen Omaña	On-site
43.			Tin Derafera	On-site
44.			Toshiaki Kudo	On-site
45.			Yoshihiko Uchikura	On-site
46.			Yusuke Yamasaki	Online
47.			Yuta Kurihara	On-site
48.			DSWD	
49.	Embassy of Japan in the Philippines		Tomohiro Matsubara	On-site
50.	JICA HQ		Saori Kojima	Online
51.			Taichi Minamitani	Online
52.	JICA Philippines		Catherine Palanca	On-site
53.			Chihiro Mototani	On-site
54.			Yanagiuchi Masanari	On-site



JICA Expert Team

Disaster Risk Reduction and Management Capacity Enhancement Project- Phase II (DRRMCEPII)  
 c/o Office of Civil Defense (OCD), Camp General Emilio Aguinaldo, Quezon City, Philippines

ANNEX 1

	Institution	Division	Name	On-site
55.	LAGUNA	PDRRMO	Aiza Crucillo	Online
56.			Aldwin Cejo	Online
57.			Faye De Guzman	Online
58.			Mhain Cabantog	Online
59.			Josephine Juanite	Online
60.			Manny Artitchea	Online
61.			Febrielyn Tumines	Online
62.			Claire Balde	Online
63.	OCD	Assistant Secretary	Hernando Caraig	On-site
64.		Aurora De la Rosa	On-site	
65.		Doms Leoncio	On-site	
66.		Grace Gañas	Online	
67.		Jen Bautista	Online	
68.		Ma. Cristina Lee	On-site	
69.		Raffy Lucas	Online	
70.		Shereen Hombrebueno	Online	
71.		Ella Paytona	Online	
72.		Ann	Online	
73.	Ben Salvador	On-site		
74.	Julius Hontiveros	On-site		
75.	Mark Anthony Rana	Online		
76.	Manuel Nivera	Online		
77.	Marc Reyes	On-site		
78.	Rowel De Leon	Online		
79.	Samantha Denise Ocaña	Online		
80.	OCD- R4A	Regional Director	Maria Theresa Escolano	Online
81.		Juvy Grace Abraquez	Online	
82.		Rowe Cancisio	Online	
83.	OCD- R7	Negros Oriental- LDRRMD	Ian Tumobag	Online



JICA Expert Team

Disaster Risk Reduction and Management Capacity Enhancement Project- Phase II (DRRMCEPII)  
 c/o Office of Civil Defense (OCD), Camp General Emilio Aguinaldo, Quezon City, Philippines

ANNEX 1

	Institution	Division	Name	On-site
84.		Regional Director	Segundo Bolo	Online
85.		Regional Director	Liza Mazo	Online
86.	OCD- RXI		Cheryl Ososrio	Online
87.			Lenie Duran- Alegre	Online
88.		CRCO- ODNS	Anjo Ellis Padilla	Online
89.	PSA		Polaris Bautista	Online
90.	ULAP		Aileen Leycano	Online
91.			April Rose Pagtulon- an	Online
92.	Bauan, Batangas		Belinda Macuha	Online
93.			Jovey Pearl Yongco	Online
94.			Noreil Habaña	Online

# Summary of the 1st period of the project

8 February 2023

Mr. Kenneth Menor, OCD

Outline of DRRMCEP-II (January 23, 2023)

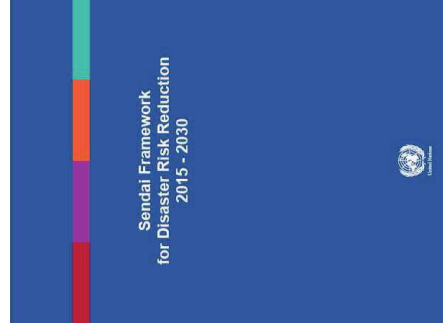
1

## Background of the Project

Outline of DRRMCEP-II (January 23, 2023)

2

## Sendai Framework for Disaster Risk Reduction 2015-2030

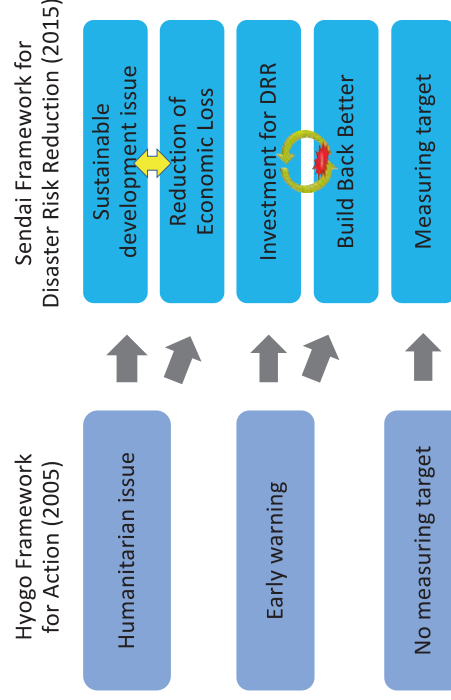


Sendai Framework for Disaster Risk Reduction 2015-2030	
<b>Contents</b>	
Preamble	9
Expected outcome and goal	12
Guiding principles	13
Priorities for action	14
Priority 1: Understanding disaster risk	14
Priority 2: Strengthening disaster risk governance to manage disaster risk	17
Priority 3: Investing in disaster risk reduction for resilience	18
Priority 4: Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction	21
Role of stakeholders	23
International cooperation and global partnership	24

Outline of DRRMCEP-II (January 23, 2023)

3

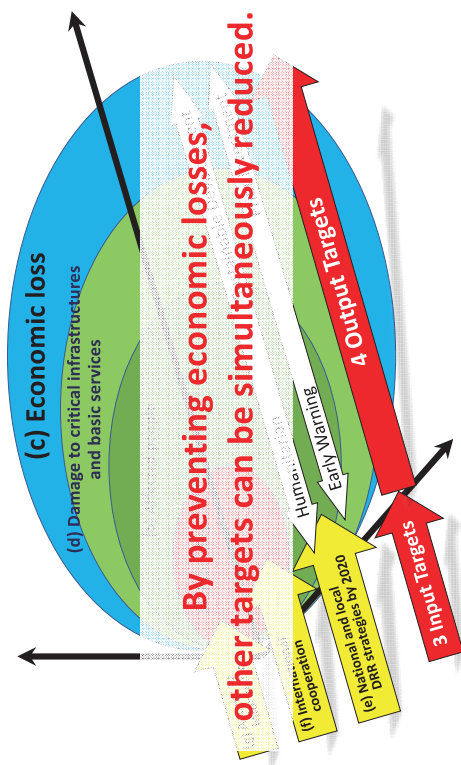
## Paradigm Shift From HFA to Sendai Framework



Outline of DRRMCEP-II (January 23, 2023)

4

## Relevance of Global Targets



Outline of DRRMCEP-II (January 23, 2023)

## Outline of the Project

Outline of DRRMCEP-II (January 23, 2023)

### Overall Goal: 3 -5 years after the project

The project outcome is replicated in the Philippines for the purpose of **reducing disaster human casualties and economic losses** under NDRRMC's initiative.

### Project Purpose: during project period

**Planning, implementation and monitoring system of RDRRMPs/LDRRMPs is developed** for the purpose of **reducing disaster human casualties and economic losses** with the necessary technical support by National DRRM system centered upon NDRRMC.

### Output1: Disaster Risk Understanding and Information (WG1)

Guidelines for hazard information use and risk assessment are developed so that disaster-related officials centered upon RDRRMC and LDRRMC can understand local disaster risks and **realize disaster risk reduction through countermeasures.**

### Output2: Local DRRM Plan (WG2)

Guidelines for the formulation of RDRRMPs/LDRRMPs based on disaster risk information are developed for the purpose of **reducing disaster human casualties and economic losses.**

### Output3: Monitoring and Evaluation (WG3)

OCED's information management, monitoring and evaluation system on the formulation, revision and implementation of RDRRMPs/LDRRMPs is established.

### Output4: Trainings and Replication (WG4)

Training system is established in order to replicate the project outcome and conduct training for regions and LGUs in the Philippines.

Outline of DRRMCEP-II (January 23, 2023)

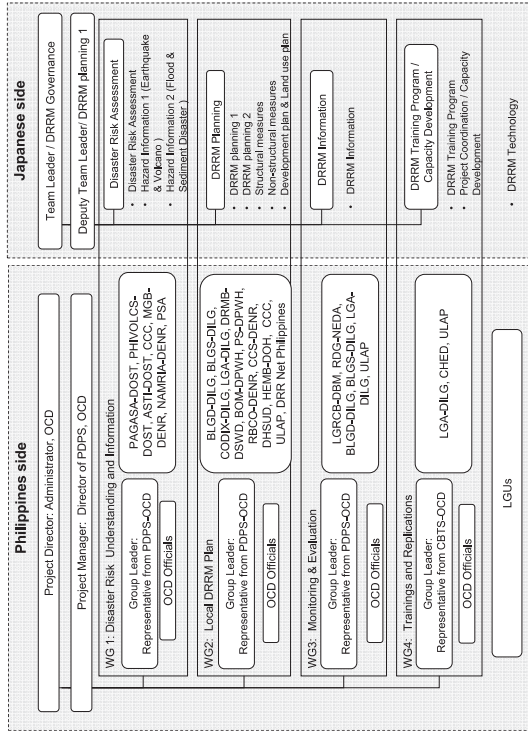
## Basic Policies for Implementing the project

1. Planned activities in the LDRRMPs have to reduce the risks.  
(WG1 and WG2)  
=> Contents of LDRRMPs should be improved.
2. LDRRMPs have to be implemented and monitored.  
(WG2 and WG3)  
=> Necessary budget should be allocated and used.
3. "Practical" LDRRMPs have to be replicated in the Philippines.  
(WG4)  
=> Supporting system of LGUs should be established.

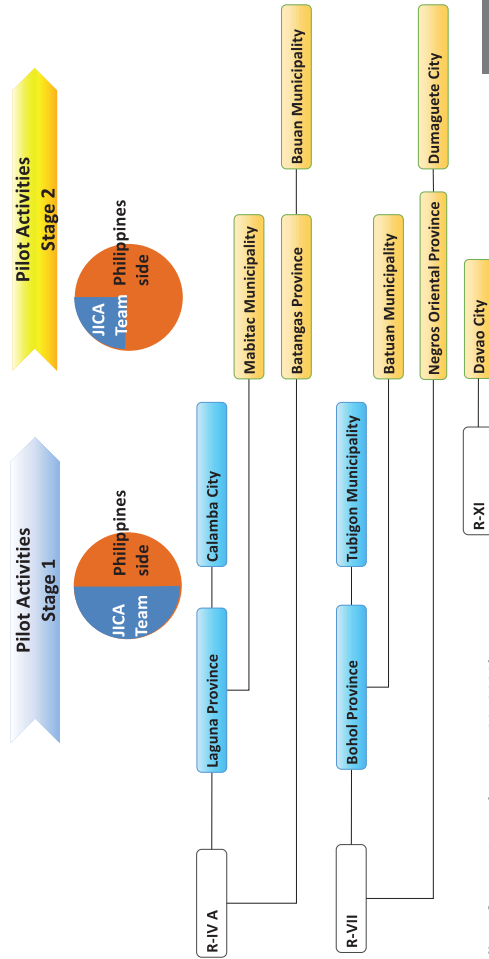
Outline of DRRMCEP-II (January 23, 2023)



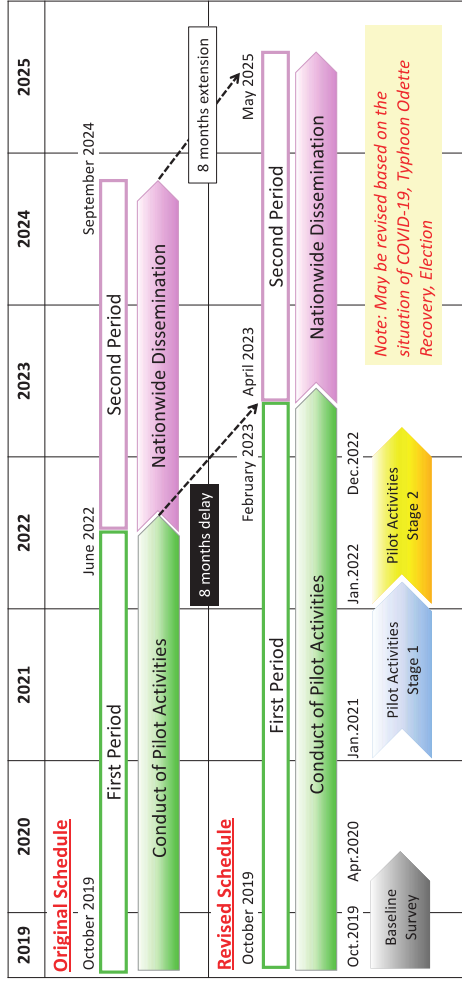
Implementation Structure



Pilot Regions and LGUs



Revised Overall Schedule (as of August 2021)



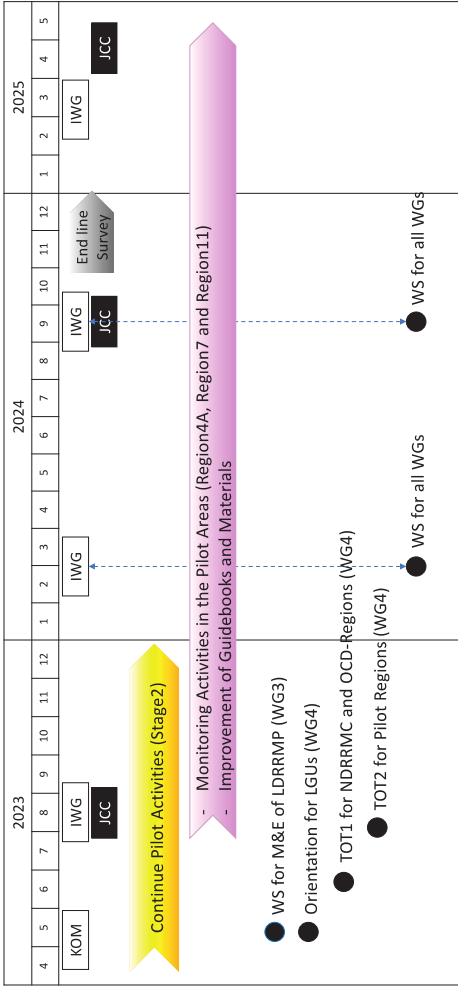
Outline of DRRMCEP-II (January 23, 2023)

Major outputs at the end of the 1<sup>st</sup> period

- WG1**
  - LDRRMP DLE Guidebook (Appendix of LDRRMP Formulation Guidebook)
  - DLE guidance for RDRRMP (A part of the RDRRMP Formulation Guidebook)
- WG2**
  - **L/RDRRMP Formulation Guidebook**
- WG3**
  - LDRRMP M&E Guidebook (Appendix of LDRRMP Formulation Guidebook)
  - LDRRMP Review Guidebook (Appendix of LDRRMP Formulation Guidebook)
- WG4**
  - **Training structure**
  - **Nationwide dissemination (roll out) plan**
  - Training courses / modules

Outline of DRRMCEP-II (January 23, 2023)

### Next Steps



Outline of DRRMCEP-II (January 23, 2023)

### Requests for OCD and WG member agencies

- Restructuring of the Implementation Structure and Enhancement of Ownership of OCD and WG member agencies for the 2<sup>nd</sup> period of the project
- Approval of Project Outputs and Issuance of Memorandum for Nation-wide Dissemination
- Securing the necessary budget for the Nation-wide Dissemination
- Holding the opportunities to share the experiences and results of the training program in Japan for the betterment of the project outputs

JCC Meeting (February 4, 2022)



## Accomplishment for OUTPUT1 on Disaster Risk Assessment

08 February, 2023



1

## Why is DLE important ?

- When LGUs develop their own strategy of DRRM for the purpose of reducing human casualties and economic losses, they need..
  - ✓ To realistically understand the disaster impacts from potential hazards to demonstrate the needs of DRRM measures.
  - ✓ To identify the feasible countermeasures to mitigate such impacts in consideration of residual disaster risks.
- In this case, a quantitative evaluation of potential impacts is convenient corresponding to time-series analysis.
- “Damages and Losses Evaluation (DLE)” is introduced as a part of the DRA process in the LDRRM planning to further provide clarity to the target risk reduction.



3

## Expected Output of WG1

### Output1: Hazard Information & Disaster Risk Assessment (WG1)

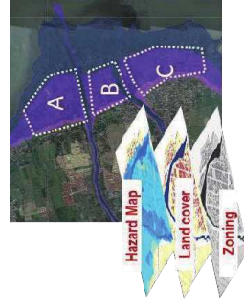
Guidelines for hazard information use and risk assessment are developed so that disaster-related officials in RDRMC and LDRRM can **understand local disaster risks and realize disaster risk reduction through countermeasures.**



The following things were clarified before developing a guideline.

- 1) **Data and information available for Disaster Risk Assessment (DRA)**
- 2) **How to conducted DRA for local planning procedure**
- 3) **How to identify local disaster risks and reflect those results to select adequate countermeasures in the current Local DRRM plans**

## A Typical Output of DLE



Barangay	# of Damaged buildings	# of casualties	Affected Cultivated Area (ha)	Direct Economic losses (mil. Php)
A	302	1,231	24	313
B	2,021	4,643	2	1,252
C	423	198	132	505



LDRRM Formulation

Form2-1A

Barangay	Current Situation			Influence of Higher Plans and Policies			Projected Future Situation		
	# of Damaged Buildings	# of Affected Casualties	Direct Economic losses (mil. Php)	Development of Infrastructure	Population Increase?	DRRM?	Change of Population Increase?	High Population Increase?	Increase of Economic losses?
A	302	1,231	313	XX	XX	XX	XX	XX	XX
B	2,021	4,643	1,252	XX	XX	XX	XX	XX	XX
C	423	198	505	XX	XX	XX	XX	XX	XX



4

## Output of the WG1 Activity

<b>1. Updating DLE Guidebook for LDRRMP Formulation</b>	<ul style="list-style-type: none"> <li>Version 1.0 and 2.0 were used in the 1<sup>st</sup> Batch of Pilot LGUs (Laguna Province, Calamba City, Bohol Province, Tubigong Municipality).</li> <li>Version 3.0 was used for the 2<sup>nd</sup> Batch of Pilot LGUs (Mabitan, Batuan, Batangas Province, Bauan).</li> <li>Version 4.0 currently being updated with the comments and recommendations from NGAs and Batch 2 Pilot LGUs</li> </ul>
<b>2. Conducting DLE for LDRRMP Pilot Activity for 1<sup>st</sup> and 2nd Batch</b>	<ul style="list-style-type: none"> <li>DLE Workshop was conducted for 1<sup>st</sup> Batch Pilot LGUs (Laguna Province, Calamba City, Bohol Province, Tubigong Municipality).</li> <li>The DLE was completed in Mabitan, Batuan and Davao.</li> <li>The DLE is on going in Batangas province and Bauan.</li> </ul>
<b>3. Developing DLE Guidance for RDRRMP Formulation</b>	<ul style="list-style-type: none"> <li>The DLE guidance (utilization of GeoRiskPH and REDAS) was prepared for RDRRMP formulation.</li> </ul>
<b>4. Conducting DLE for RDRRMP Pilot Activity of Region 4A</b>	<ul style="list-style-type: none"> <li>Regional DLE using GeoRiskPH and REDAS SHAKE for R4A are already provided.</li> </ul>



## Output of the WG1 Activity

LGU	Briefing Session	Follow-up activities	Main DLE Approach selected	Current status
R4A	Laguna P. July 30, 2021		DRR-CCVA	Form 2-1A completed
	Calamba July 30, 2021		CDRA	Form 2-1A completed
	Mabitan Apr. 29	From May 12	GeoRiskPH + Own Dataset +REDAS	Form 2-1A completed
	Bauan May 24	From Jun. 27	CDRA + REDAS	Form 2-1A on-going
	Batangas P. Sept 30	Oct 4	DRRCCAVA (GIS) + REDAS	Form 2-1A on-going
R7	Bohol P. Aug 11, 2021		DRR-CCVA	Form 2-1A completed
	Tubigon Aug 10, 2021		CDRA	Form 2-1A completed
	Batuan Jun. 6	From Jul. 5	GeoRiskPH + REDAS	Form 2-1A completed
	Dumaguete Jul. 6	Not yet	No info given	TBD
	Negros Or P. May 23	Not yet	GeoRiskPH + REDAS	TBD
R11	Davao Sep. 7	Oct 3	CDRA+REDAS	Form 2-1A completed



## Basic Policy of DLE for RDRRMP Formulation

- Non- GIS-based Analysis is adapted from the viewpoint of simplicity and universality of the DLE Procedure by OCD-Rs.
- Hazard maps and exposure data authorized by NGAs or utilized in the related plan like the Regional Development Plan are used.
- GeoRiskPH and REDAS SHAKE (only for Earthquake Shaking) are the standard DLE approaches.

A minimum DLE results available for RDRRMP formulation should be provided by the above approach.

## Developing DLE Guidance for RDRRMP Formulation





# Updating DLE Guidebook for LDRRMP Formulation



## DLE Part in LDRRMP Formulation Guidebook (Version 3 as of June 2022)

**Stage 1: Situational Analysis**.....I-1

*Step 1-0: Review the Disaster Risk Profile of the Locality*.....I-3

*Step 1-1: Conduct Exposure Analysis*.....I-7

*Step 1-2: Review the existing DRRM Plans and Efforts*.....I-10

*Step 1-3: Review related Development Plans*.....I-18

*Step 1-4: Review Infrastructures Plans*.....I-24

*Step 1-5: Classify what is ongoing, what is planned*.....I-25

*Step 1-6: Understand how Disaster Risk may change/Optimizing Residual Risks*.....I-26

*Step 1-7: Anticipate the Future Impacts from the Disasters*.....I-27

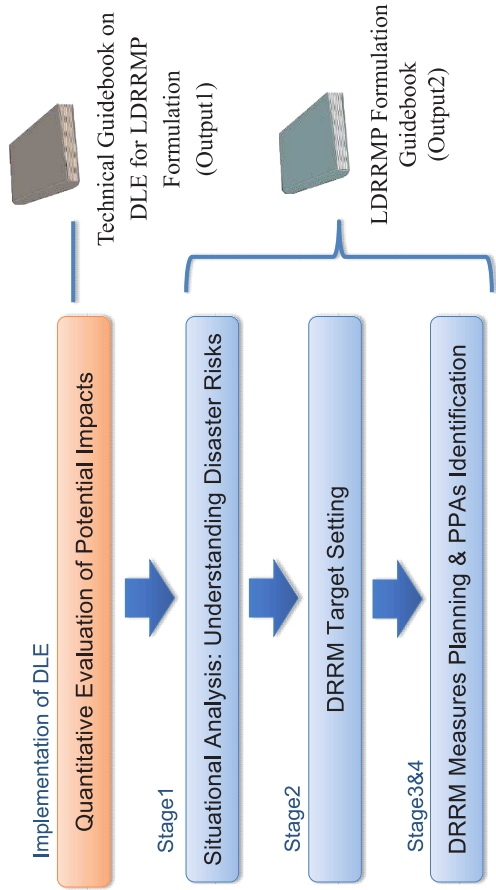
*Step 1-8: Identify Vulnerabilities and Capacities*.....I-27

Where are the High-Risk Areas? Public Facilities and Crucial infrastructures exposed to Risk?

Sector/Industry	Exposure Analysis									
	D11 Municipal Government	D2 Local Government	D3 Private	D4 Public	D5 School	D6 Healthcare	D7 Religious	D8 Cultural	D9 Sports	D10 Other
10										
11										
12										
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# The DLE in the LDRRMP Formulation



## Summary of Revisions of Version 4.0

- Introduction
  1. What is the purpose of the Guidebook
  2. What is the Scope of the Damage and Loss Evaluation
  3. Definition of Terms
  4. Typical Output
  5. How the DLE is reflected in the LDRRMP Process
- Standard DLE Procedure
  1. Organizing the DLE Team
  2. An Initial LGU Self-Assessment
  3. Identification of Target Hazards for DLE
  4. Data and information available for DLE
  5. Selection of the approach of the DLE
  6. Validation of DLE Result
  7. Consolidation of Results and Summary



## Summary of Revisions of Version 4.0

### 2.0 DLE Standard Procedure

#### 2.5. STEP 5: Selecting the DLE Approach

**Purpose:** The DLE Team decides which DLE approaches they will use for their DLE to update or revise their LDRRRMP.

DLE Teams who have completed Step 2, is now ready to do Step 5. The DLE Team must select among the five approaches the best one that they can use for their DLE. The five approaches are presented below.

- A. LGUs utilize the processed data of CDRA & DRR-DRR-CCAVA for the DLE result directly.
- B. LGUs conduct DLE using GIS by themselves with hazard & exposure data.
- C. LGUs use the output of "GeoRiskPH".
- D. LGUs request NGAs for the DLE Results (REDAS/SWERVE).
- E. LGU conduct Manual DLE.

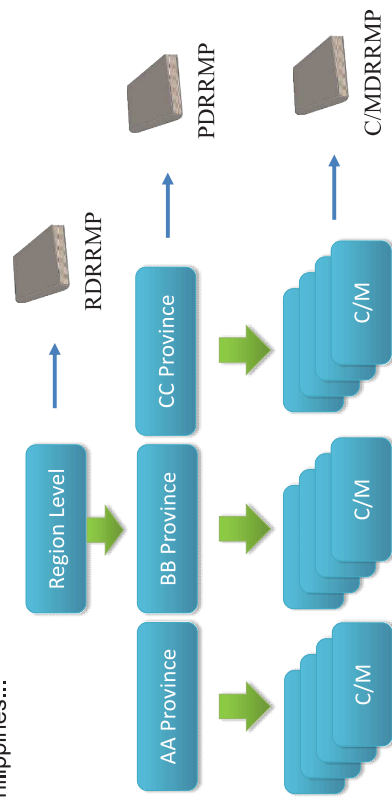


## Summary of Revisions of Version 4.0

- PDNA vs DLE
- Annexes
  1. Annex A: Application Idea on how to utilize the results of DLE
  2. Annex B: LGU Initial Assessment
  3. Annex C: Description Hazard Clusters
  4. Annex D: Outline of REDAS
  5. Annex E: Outline of SWERVE
  6. Annex F: DLE Approach using CDRA/DRR=CCAVA Results
  7. Annex G: DLE Approach using GIS Capacity
  8. Annex H: DLE Approach using GeoRiskPh
  9. Annex I: DLE Approach using REDAS
  10. Annex J: Manual DLE Approach

### Proposal to DOST/PHIVOLCS: Nationwide dissemination of GeoAnalyticsPH and REDAS SHAKE Results

If DOST/PHIVOLCS will be able to prepare barangay-wise exposure data using GeoAnalyticsPH and REDAS Shake and distribute the result to all Regions (OCD-R) in the Philippines...



Every OCD-R utilize the result for formulating own RDRRRMP and distribute it to LGUs under the region.

## Way forward actions

## Expectations for Feature Expansion of GeoAnalyticsPH for Local Planning

1. To be easier to request the output data by LGUs.
2. To provide a list (Barangay-wise, C/M-wise or Province-wise) using csv format when the output data is downloaded.
3. To adopt land cover data (e.g. NAMRIA) as one of exposed elements in the process of GeoAnalyticsPH as standard.



*Thank you so much!  
Maraming salamat po!*

