### Republic of the Philippines

FY2017 Ex-Post Evaluation of Technical Cooperation Project

"The Disaster Risk Reduction and Management Capacity Enhancement Project"

External Evaluator: Miho Sakuma, OPMAC Corporation

#### 0. Summary

The objective of this project was to strengthen the institutional and human resources capacities of the Office of Civil Defense (OCD), which is designated as the leading organization for Disaster Risk Reduction and Management (DRRM) activities in the Philippines. The Government of the Philippines has shifted its approach from disaster management with a focus on post-disaster response to disaster prevention during normal times. Accordingly, it has become an urgent task to strengthen the institutional and human resources capacities of the OCD in order to implement disaster management based on this new approach. The project has been consistent with the development policies and development needs of the Philippines, and with Japan's aid policies. Therefore, the relevance of the project is high. The project produced National Disaster Response Plans (NDRP), training programs for the staff of DRRM related agencies, manuals, guidelines, etc. that have greatly contributed to the standardization of disaster response activities and the capacity building of organizations and human resources. However, achieving high-level political decision-making and high-level goals that require coordination among departments and agencies has taken a considerable amount of time. Therefore, the effectiveness and impact of the project are fair. Although the project period was as planned, the project cost exceeded the plan. Therefore, the efficiency of the project is fair. In terms of sustainability, DRRM policies have had high priority. However, discussions are continuing on amending laws to strengthen the leadership of organizations responsible for DRRM and there is a strong possibility that the organizational structure of the OCD will be changed in the near future. There are uncertain factors and issues in terms of policies, institutions, organizations, and technologies. Thus, the sustainability of the effects generated by this project is fair. In light of the above, this project is evaluated to be partially satisfactory.

### 1. Project Description







**OCD Operation Center** 

### 1.1 Background

The Republic of the Philippines is one of the countries with the greatest number of natural disasters in Southeast Asia, and the types of natural disasters such as floods, typhoons, landslides, earthquakes, and volcanic eruptions also vary. However, until recently, the Philippines did not have a national disaster response plan, the basis for DRRM at the national level. The various activities of national agencies responsible for DRRM have been carried out without any unification. It was difficult to say that activities at the time of disaster response were efficient because the means of communication, the format of information, and the disaster response system were not uniform between the central and local governments.

The Government of the Philippines shifted its policy direction from post disaster management focusing on disaster response after disaster occurrence to proactive disaster management focusing on mitigation and preparedness before disaster occurrence and during normal situation, since the *Hyogo Framework for Action 2005-2015* was adopted at the World Conference on Disaster Risk Reduction in 2005. It strengthened DRRM by formulating the *Strategic National Action Plan on Disaster Risk Reduction 2009-2019*. It is in this context that the *Philippine Disaster Risk Reduction and Management Act of 2010 (Republic Act (RA) No. 10121)* (DRRM Act) was enacted in May 2010, establishing a legal framework to implement disaster management based on a new approach called DRRM. Under the DRRM Act, reorganization of the National DRRM Council that is the highest decision-making body on disaster management at the national level, the formulation of a National DRRM Plan, establishment of Regional and Local DRRM Councils, and establishment of Local DRRM Offices were stipulated.

The need to strengthen the capacity of related organizations and the need to formulate Local DRRM Plans rapidly increased with the need to implement DRRM activities under this new framework. It was also necessary to strengthen the capacity of the OCD, which was designated as the leading organization for DRRM activities, as well as the secretariat of the National DRRM Council, since the OCD was required to conduct a broader and more diverse range of activities related not only to post disaster response that was a major activity before the DRRM Act was enacted, but also to proactive disaster management including focusing on mitigation and preparedness. Under such circumstances, the Government of the Philippines requested this project of the Government of Japan, aiming at capacity building of the OCD.

#### 1.2 Project Outline

Overall Goal		DRRM activities conducted by organizations of the Government of the Philippines are improved.					
Proje	ect Purpose	Capacity of the OCD for DRRM is strengthened.					
	Output 1	Planning and implementing capacity of the OCD on DRRM is strengthened.					
Outputs	Output 2	DRRM activities, including information management, are standardized.					
	Output 3	DRRM education and training system and capacity is strengthened <sup>1</sup> .					
	Output 4	Support system for Community Based Disaster Risk Reduction and Management (CBDRRM) is strengthened <sup>2</sup> .					
_	otal cost anese Side)	425 million yen					
Period o	of Cooperation	March, 2012 - March, 2015 (36 months)					
Implem	enting Agency	OCD					
	evant Agencies ganizations	-					
Supporting Agency / Organization in Japan		Ministry of Land, Infrastructure and Transport, Cabinet Office, etc.					

<sup>&</sup>lt;sup>1</sup> Appears in the Ex-Ante Evaluation Report and the signed Record of Discussions as "Human resources development plan for DRRM is developed." In order to conform to the phrase commonly used in OCD revisions were made and the PDM Version 3.0 was approved at the 6<sup>th</sup> Joint Coordination Committee in February 2014.

<sup>&</sup>lt;sup>2</sup> Appears in the Ex-Ante Evaluation Report and the signed Record of Discussions as "Supporting system for Community Based Disaster Risk Management (CBDRM) is strengthened." In order to conform to the phrase commonly used in OCD revisions were made and the PDM Version 3.0 was approved at the 2<sup>nd</sup> Joint Coordination Committee in August 2012.

## [Technical Cooperation]

- Long-Term Expert (DRRM) (2012-2014)
- Project for Enhancing Capacity for Weather Observation, Forecasting and Warning (2014-2017)
- Enhancement of Earthquake and Volcano Monitoring and Effective Utilization of Disaster Mitigation Information in the Philippines (2010-2015)

#### [ODA Loan]

• Post Disaster Stand-by Loan (2014)

#### Related Projects

#### [Grant Aid]

 Project for Improvement of Equipment for Disaster Risk Management (2012)

## [Other donors, agencies]

- GMMA READY Project (Enhancing Greater Metro Manila's Institutional Capacities for Effective Disaster/Climate Risk Management towards Sustainable Development) (2010-2014: UNDP, Aus-AID)
- Project ReBUILD (Resilience Capacity Building for Cities and Municipalities to Reduce Disaster Risks from Climate Change and Natural Hazards (Phase 1)) (2012-Present: UNDP, Aus-AID)

#### 1.3 Outline of the Terminal Evaluation

#### 1.3.1 Achievement Status of the Project Purpose at the Terminal Evaluation

Indicators of the Project Purpose set in the Project Design Matrix (PDM) were (1) Plans, manuals and guidelines prepared through the project are authorized; and (2) Concepts, systems and programs prepared through the project are ready for operation. Progress at the time of terminal evaluation<sup>3</sup> was as follows. With respect to the first indicator, while six plans had already been approved, ten outputs (tools, programs, manuals, concept papers, etc.) needed to be approved by relevant authorities (national or local DRRM Council, OCD executives) by the end of the project. In addition, with respect to the second indicator, while four outputs (Information Management System (IMS), training modules, etc.) were already fully operational, four further outputs (manuals, training programs, etc.) needed to be improved and finalized for operation by the end of the project.

<sup>&</sup>lt;sup>3</sup> The Joint Terminal Evaluation was conducted 6 months before the completion of the Project.

# 1.3.2 Achievement Status of the Overall Goal at the Terminal Evaluation (Including other impacts.)

Indicators of the Overall Goal set in the PDM are (1) Sunset Review of RA 10121, a review work required five years after the start of enforcement of the law, is implemented; (2) all LDRRMP are upgraded; (3) Utilization of DRRM funds by other organizations is regularly updated in the OCD M&E system; (4) DRRM activities for plans, manuals and guidelines prepared through the project are implemented; and (5) The concepts, systems and programs prepared through the project are operationalized. Progress at the time of terminal evaluation was as follows. With regard to the indicator (1), project activities were being conducted to prepare recommendations for the Sunset Review of RA 10121, which was scheduled in 2015 by the Congress of the Philippines. With respect to the indicator (2), based on the template of the LDRRMP, the project supported the formulation and update of Local DRRM Plans of the pilot and non-pilot Local Government Units (LGUs) in Region 2. It was assumed that it would be necessary for the related agencies such as OCD, the Department of the Interior and Local Government and the Department of Social Welfare and Development to issue a joint memorandum in order to ensure the formulation and update of all the Local DRRM Plans using the same template. As for the indicator (3), no specific progress had been made on the establishment of a monitoring and evaluation system related to the utilization of the DRRM funds. With regard to the indicators (4) and (5), DRRM activities and outputs prepared through the project also had to be finalized and approved by the completion of the project.

#### 1.3.3 Recommendations from the Terminal Evaluation

Recommendations from the Terminal Evaluation were as follows.

- (1) The project is to clarify the plan of operation for the remaining cooperation period to ensure the completion and authorization of the remaining project outputs.
- (2) If the approval of the outputs is outside the scope of the project activity, the project team should establish a system whereby the OCD can monitor the progress of obtaining the final approval.
- (3) Since the project outputs are of a nature that will be updated as circumstances change, the OCD should revise/improve the outputs with its own initiative as necessary.
- (4) The project team should consider measures to promote and disseminate best practices found in pilot activities in other areas.
- (5) For technical capacity building for DRRM of OCD staff, it is important that the skills and knowledge of individual staff are improved through training, and also at the institutional level, that new staff with knowledge in particular technical areas (typhoons, earthquakes, Information Management System (IMS), etc.) are hired. Personnel exchanges with technical institutions such as the Philippine Atmospheric, Geophysical and Astronomical

- Services Administration (PAGASA) and the Philippine Institute of Volcanology and Seismology (PHIVOLCS) should also be considered.
- (6) To achieve the overall goal, it is necessary to further strengthen the ability of the OCD to coordinate among related agencies. Collaboration with the Department of the Interior and Local Government is particularly important for the extension and dissemination of DRRM activities to LGU.
- (7) In order to extend and disseminate the outputs of the project (tools, plans, systems, etc.) to the lower administrative levels such as regions, provinces, cities and municipalities, and barangays, the use of a cascade method<sup>4</sup> introduced by the project for the Training of Trainers (TOT) should be considered.

## 2. Outline of the Evaluation Study

#### 2.1 External Evaluator

Miho Sakuma, OPMAC Corporation<sup>5</sup>

## 2.2 Duration of Evaluation Study

This ex-post evaluation study was conducted with the following schedule.

Duration of the Study: October, 2017 - January, 2019

Duration of the field study: January 22, 2018 - February 9, 2018, July 16 - July 20, 2018

#### 3. Results of the Evaluation (Overall Rating: C<sup>6</sup>)

## 3.1 Relevance (Rating: ③<sup>7</sup>)

#### 3.1.1 Consistency with the Development Plan of the Philippines

The Philippines is frequently hit by various natural disasters such as typhoons, storms, floods, landslides, volcanic eruptions, and earthquakes. The Government of the Philippines has tried to strengthen its DRRM by formulating the *Strategic National Action Plan on Disaster Risk Reduction 2009-2019*, after the *Hyogo Framework for Action 2005-2015* was adopted at the World Conference on Disaster Risk Reduction in 2005. However, at the time of ex-ante evaluation of the project, the Philippines did not have a national disaster response plan (equivalent to *the Disaster Countermeasures Basic Act* in Japan), the basis for DRRM at the national level. Disaster response activities were not efficiently done since communication methods, information formats, and disaster response systems were not unified between central

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<sup>&</sup>lt;sup>4</sup> A system in which small stimuli amplify one after another step by step, causing a large effect. In this case, it refers to a method of conducting TOT from the upper administrative level to the lower administrative level (e. g, OCD headquarters → OCD regional offices → provinces → cities/ municipalities) and finally to a large number of residents.

<sup>&</sup>lt;sup>5</sup> Sakuma is a senior researcher of the International Development Center of Japan Inc. and conducted this ex-post evaluation as a member of the evaluation team led by OPMAC Inc.

<sup>&</sup>lt;sup>6</sup> A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

<sup>&</sup>lt;sup>7</sup> ③: High, ②: Fair, ①: Low

and local governments. It was in this context that the DRRM Act was enacted in May 2010 and a national disaster response framework based on a new approach, DRRM, was introduced. Capacity enhancement for DRRM at the national and local levels was included in major policies such as *the Philippine Development Plan 2011-2016* formulated by Aquino Administration starting in June 2010 and *the National DRRM Plan 2011-2018* approved by the National DRRM Council.

Consistency continued to be high up to completion of the project as there were no great changes in the major Philippine laws, policies and development plans related to DRRM during the project period.

## 3.1.2 Consistency with the Development Needs of the Philippines

Under the DRRM Act, the OCD, a leading organization in DRRM activities, was designated as the secretariat of the National DRRM Council. However, the officials of OCD lacked the knowledge and skills necessary for their new role in ensuring disaster preparedness and disaster prevention. This was due to the fact that, prior to the enactment of the DRRM Act, the OCD was mainly responsible for disaster response activities and the implementation of disaster prevention training financed by donors. Therefore, at the time of ex-ante evaluation, there was an urgent need to strengthen the capacity of the OCD's organization and human resources. In addition, the OCD submitted a proposal to the Government of the Philippines for a new organizational structure and staffing pattern with an increase in the number of officials and employees from 300 8 to 1,500 in order to drastically expand the organization in line with the new roles stipulated in the DRRM Act. A drastic change in the organizational structure and an increase in the number of staff were expected even during the project implementation period. The standardization of DRRM activities is applicable to the transient organization of the OCD, and the compilation of DRRM training materials and other items have been compiled into high-priority training modules in the absence of any prospect for the establishment of the DRRM Training Institutes<sup>9</sup>. Thus, effective products have been produced under the circumstances of each time

Thus, high consistency with the development needs at the time of ex-ante evaluation was maintained during the cooperation period. The needs in four priority areas, namely (1) the planning and implementing capacity of the OCD, 2) the standardization of information management and DRRM activities for improving disaster response capacity, 3) the development of DRRM education and training plans, and (4) the promotion of CBDRRM activities, continued to be high up to project completion.

<sup>&</sup>lt;sup>8</sup> In the organizational structure and staffing pattern during the implementation period of this project, a total of 301 staff members, 117 from OCD headquarters and 183 from Region offices, were recognized as full-time staff.

<sup>&</sup>lt;sup>9</sup> Before the start of this project, the Working Group of the National DRRM Council on the establishment of the DRRM Training Institutes has been set up and started preparations, but it has not been materialized until the time of the expost evaluation.

#### 3.1.3 Consistency with Japan's ODA Policy

Japan's Country Assistant Program for the Philippines (dated June 2008) identified "support for improving self-reliance and the living environment of the poor" as one of the priority development areas, in which the "expansion of basic social services" was included. In order to "protect lives from natural disasters", the Policy included assistance for the development and maintenance of flood control and erosion control infrastructure in high-priority areas, as well as assistance in strengthening the measures that are required for residents to evacuate from natural disasters.

JICA's Country Assistance Implementation Report for the Philippines (July 2009) also identified "support for improving self-reliance and the living environment of the poor" as one of the pillars of cooperation, under which the "DRRM program" is recognized as one assistance program for "response to the environment and disaster prevention". As Japan's assistance implementation policy, the "DRRM program" included non-structural measures such as "support in combination with the strengthening of the coordination system between related organizations including LGU and Non-Governmental Organizations (NGO)" and disaster response (at the time of disaster) such as "an urgent implementation of physical, human and financial support immediately after the occurrence of natural disasters based on the scale of disasters".

The objective of this project was to strengthen the capacity of the OCD, the key organization for DRRM activities, and it was consistent with Japan's ODA policy at the time of planning

## 3.1.4 Appropriateness of the Project Plan and Approach

As mentioned in 3.1.2, the project team reviewed the original outputs, activities and indicators and revised the PDM in accordance with the progress of DRRM in the Philippines. Therefore the project was able to maintain a high consistency with the country's development needs. More specifically, with regard to support for the formulation of National DRRM Plans, which was envisaged at the time of ex-ante evaluation, it was replaced to support for the formulation of Local DRRM Plans since the National DRRM Plan was already formulated and approved (in February 2012) under the initiative of the OCD prior to the project commencement in March 2012. In addition, the 2nd Joint Coordinating Committee in August 2012 and the 6th Joint Coordination Committee in February 2014 reviewed the PDM and revised the activities and indicators in accordance with the changed needs and situation.

This project was implemented while the organizational structure of the OCD remained unfinalized and counterparts frequently changed. Therefore, the project adopted a flexible approach with the aim of creating outputs in line with the interim organizational structure of the OCD, later finalizing and approving the new organizational structure of the OCD.

As stated above, this project was highly relevant to the country's development plan and development needs, as well as to Japan's ODA policy. The approaches taken, such as a flexible review of the project plans according to the progress of DRRM in the Philippines, were appropriate. Therefore, the relevance of the project is high.

## 3.2 Effectiveness and Impact (Rating: ②)<sup>10</sup>

#### 3.2.1 Effectiveness

The table below shows the achievement status of each indicator of project purposes at the time of project completion.

Table 1: Achievement of Project Purpose at the time of Project Completion

Project Purpose	Indicator	Actual						
Capacity on DRRM of the OCD is	(1) Plans, manuals and guidelines prepared through	"Almost Achieved": At the end of the project (March 2015), more tabout two thirds (11 out of 16) of the project outputs were authorized.						
strengthened.	the project are authorized.	Output Authorized at the end of the project Not authorized yet at the end of the the project						
		1	<ol> <li>Region 2 DRRM Plan2. Isabela Province DRRM Plan</li> <li>Ilagan City DRRM Plan</li> <li>Alcala Municipality DRRM Plan</li> <li>(Other 15 Regions' DRRM Plans)</li> <li>Checklist and Assessment Form</li> </ol>	Cagayan Province DRRM Plan				
		2	7. National Disaster Response Plan (NDRP) for Hydro- Meteorological Disasters	NDRP for Earthquakes and     Tsunami     OCD Operations Manual for     Disaster Response				
		3	National DRRM Education and Training Program     Four priority training modules for DRRM Training Institutes     Civil Defense Education and Training Program	-				
		4	11. CBDRRM Basic Instructor's Guide	Concept Paper of CBDRRM     National Policy     Action Plan for CBDRRM     activities				

<sup>&</sup>lt;sup>10</sup> Sub-rating for Effectiveness is to be put with consideration of Impact. In this ex-post evaluation, in addition to questionnaire surveys and interviews with direct beneficiaries (OCD headquarters and regional offices), qualitative surveys were conducted in the Metropolitan Area of Manila and at local project sites. In the Metropolitan Area of Manila, interviews were conducted with disaster prevention-related organizations (the Department of Social Welfare and Development, the National Economic Development Agency, the Department of the Interiors and Local Government, the PAGASA, and the PHIVOLCS), which are indirectly beneficiaries, regarding project effects (participation in activities and training, building relationships with other organizations of the OCD, etc.). The results were used as supplementary materials for judging the effectiveness and impact of the project. At the local project sites, interviews were conducted with four local governments (Cagayan province, Alcala municipality, Isabela province, and Ilagan city) in the Region 2that formulated local government DRRM plans for the activities of Project Output 1 and two local governments (Balanga city and Morong municipality) in the Region 3 that conducted community disaster prevention training for the activities of Project Output 4. These interviews were used as supplementary materials to judge the effectiveness and impact of the project.

Project Purpose	Indicator	Actual				
	(2) Concepts, systems and programs		": At the time of project completion (March 2015), all of the puts were ready for operation.			
	prepared through	Output	Ready for operation			
	the project are	1	Checklist and Assessment Form			
	ready for operation.		OCD Disaster Response Operations Manual     Information Management System (IMS)     New cluster groupings in NDRP (Review of departments and agencies that are members of each cluster)			
		3	Four priority training modules for DRRM Training     Institutes     Civil Defense Education and Training Program			
		4	7. Concept Paper of CBDRRM National Policy 8. CBDRRM Basic Instructor's Guide			

Source: Documents provided by and questionnaire responses from the OCD

The activities of Output 1 supported the formulation of Regional DRRM plans and Local DRRM plans in four municipalities in Region 2. According to interviews with officials in charge of the Planning Division of the OCD Headquarters and the OCD Regional Offices, they were able to deepen their understanding of the current status and issues of DRRM in each LGU while instructing LGU in the formulation of Regional DRRM plans and Local DRRM plans. Officials were also able to prepare a checklist and an assessment form for the monitoring and evaluation of Local DRRM Plans based on knowledge gained through their experiences in supporting the formulation of plans, and to prepare for the implementation of monitoring and evaluations of Local DRRM plans.

The activities of Output 2 aimed to standardize DRRM activities, including information management. The formulated NDRP (Hydro-Meteorological Disasters) and NDRP (Earthquakes and Tsunami) aim to standardize the activities and procedures that should be undertaken by the relevant organizations so that they can respond quickly and collaboratively to disasters, and they contributed to the establishment of plans at the organizational level of the relevant organizations. The NDRP (Hydro-Meteorological Disasters) was approved by the National DRRM Council on June 11, 2014, but the NDRP (Earthquakes and Tsunami) had not yet been approved at the time of project completion. Interviews with the relevant agencies indicated that the disaster response cluster<sup>11</sup> was reorganized from 8 to 12 in the process of formulating the NDRP, and as a result, each agency was able to concentrate on specific roles and functions in response to disasters such as Hydro-Meteorological disasters, earthquakes, and tsunami, making coordination more efficient. Participants in the NDRP development process also praised the process for improving skills, knowledge, and coordination at the individual level. On the other hand, the OCD Disaster Response Operation Manual, which was also formulated,

<sup>&</sup>lt;sup>11</sup> Disaster response activities are divided into areas such as camp management, logistics and emergency telecommunication, and national government agencies in charge of each cluster are designated. For example, the OCD is the leading agency in charge of the logistics cluster in the event of a disaster.

compiles the existing OCD Regulations and manuals which deal with the activities that the OCD Headquarters and regional offices should take in response to disasters of NDRP. It is expected that the standardization of disaster response operations at the organizational level of the OCD will enable a swift response to disasters. At the individual level, participants deepened their understanding of the disaster response of the OCD staff who participated in the development of the manual, and expressed their recognition that the knowledge had been shared. The OCD Disaster Response Operation Manual had been completed at the time of project completion, but it was expected that the OCD would be reorganized in 2015 after the completion of this project. Therefore, after the change in the organizational structure, the manual was to be used with the approval of the Civil Defense Administrator (the head of the OCD) with any necessary modifications. Similarly, an IMS (consisting of five modules: Management, Web-Geographic Information System (GIS), Emergency Responder, Disaster Incident, and Historical Disaster)<sup>12</sup> was developed for use in disaster decision-making and disaster response activities. The IMS was used for disaster response while it was still being developed. After its completion around November 2014, OCD staff used the IMS for disaster response, without the support of Japanese experts, during Typhoon Segnan between December 31, 2014 and January 1, 2015. Prior to this, training was provided on the use of IMS and GIS, which was attended by IT officials from OCD headquarters and regional offices.

Output 3 included the development of the National DRRM Education and Training Program, training modules, and the Civil Defense Education and Training Program. The National DRRM Education and Training Program was developed to provide basic guidelines for the DRRM stakeholders and for nurturing DRRM human resources as a country, whose roles were expanded with the enactment of the DRRM Act. In order to standardize the training for disaster management personnel and provide appropriate training, the following four were selected as prioritized participants: the Local Chief Executives of LGU, Local DRRM Councils, public sector employees, participants from the private sectors, and CBDRRM stakeholders. A number of training course modules were prepared. The National DRRM Education and Training Program and its Training Courses and Modules were approved by the Secretary of the Department of National Defense on 15 January 2015. In conjunction with this, the Civil Defense

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<sup>&</sup>lt;sup>12</sup> The management module is a system for administrators who register and update users, and operate, manage, and expand database software and servers. The web-GIS module provides a hierarchical display of emergency responder information (e.g., location of DRRM offices), disaster information (e.g., number of affected people/evacuees), and disaster history (e.g., geographical distribution of population affected by past typhoons), which can be referenced by clicking on icons or areas on the map. The Emergency Response Module is a database that manages the contact information, human resources, and information on stockpiling materials and equipment of the LGU of the National DRRM Council. The Disaster Incident Module is a system that supports the preparation, management, and updating of reports on the situation in the disaster-stricken areas in the event of a disaster. The Historical Disaster Module is an automated sorting system that allows information about past disasters to be used for individual or annual reporting, and can apply output data to graphs, diagrams, and electronic maps.

Education and Training Program for OCD staff was prepared and approved by the Civil Defense Administrator on 6 January 2015, commensurate with the tasks required by the DRRM Act.<sup>13</sup>

In Output 4, with regard to CBDRRM activities that have been implemented by various related organizations, based on the results of the pilot projects in the two municipalities in Region 3, the CBDRRM Training Course and the Trainer's Basic Guide were formulated in addition to the National Policy (Concept Paper, Action Plan for the OCD to be proactively deployed nationwide in the future and Draft of National Policy), which clarifies the roles and responsibilities of the related organizations and presents the basic issues for effective and continuous nationwide deployment in the future (). The CBDRRM Training Course and Trainer's Basic Guide, together with the National DRRM Education and Training Program and its Training Course Module, were approved by the Secretary of National Defense on January 15, 2015. These contributed to the standardization of capacity building not only in the development of human resource systems at the organizational level of the OCD but also in DRRM related organizations. The draft of the Concept Paper and Action Plan for National Policy on CBDRRM was completed at the time of project completion, but was not approved by the National DRRM Council.

From the viewpoint of the indicators, the target has been sufficiently achieved. Therefore, the effectiveness is high. Although the OCD was under continuous major reorganization throughout the whole period of the project, at the completion of the project, it was judged that the OCD was able to establish the foundation for "continuously strengthening the DRRM capacity of the OCD" as stated in the project purpose. Outcomes were confirmed through interviews with stakeholders not only at the organizational level (planning, manuals, development of training programs, etc.), but also at the individual level (acquisition of skills, knowledge, experience, etc.) and the social level (the relationships between the OCD and related organizations, the establishment of systems, etc.).

## 3.2.2 Impact

3.2.2.1 Achievement of Project Purpose (From the time of project completion to the time of ex-post evaluation)

The degree of achievement of each indicator at the time of ex-post evaluation is as shown in the table below. The project purpose has been mostly achieved since project completion.

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<sup>13</sup> The training modules of the advanced courses are common to the training modules of the National DRRM Education and Training Program.

Table 2: Achievement of Project Purpose at the time of ex-post evaluation

<b>Project Purpose</b>	Indicator	Actual
Capacity on DRRM of OCD is strengthened.	(1) Plans, manuals and guidelines prepared through the project are authorized.	<ul> <li>Out of the outputs that were not approved at the project completion, NDRP (earthquakes and tsunami) was approved by the National DRRM Council and shared with the relevant organizations after the project was completed.</li> <li>Out of the outputs that were not approved at the time of ex-post evaluation, the Local DRRM Plan of Cagayan was not approved by the Provincial Council but there was no hindrance to substantial use.</li> </ul>
	(2) Concepts, systems and programs prepared through the project are ready for operation.	• Outputs other than the IMS have been operational and effect has been continuously observed until the time of ex-post evaluation. The IMS was not used at the time of ex-post evaluation as a failure occurred after completion of the project.

Source: Documents provided by and questionnaire responses from the OCD

The status of the project purpose Indicator 1 at the time of ex-post evaluation was as follows. Although the Cagayan Provincial DRRM Plan had not been approved due to political confrontation between the Governor and the Provincial Council, interviews confirmed that this did not hinder the effective utilization of the plan. The DRRM activities of the province were implemented and the annual DRRM budget was formulated based on the plan. The OCD Disaster Response Operation Manual was to be used with the approval of the Civil Defense Administrator after necessary modifications were made when the new organizational structure of the OCD had been established. However, no modifications were made and the manual was being not used at the time of ex-post evaluation. As for the National Policy on CBDRRM, high-level political decision-making is required because the respective roles of the Department of the Interior and Local Government, the Department of Social Welfare and Development, and other relevant organizations should be clarified and coordinated, and implementation should be made of large-scale budgetary measures for the nationwide deployment of CB DRRM activities. Discussions are continuing on the revision of the DRRM Act, which will be mentioned later, in 3.4.1.

With respect to the project purpose Indicator 2, it was confirmed in the field study that, all of the outputs, except the IMS, were operational at the time of ex-post evaluation. Use of the IMS after project completion could not be verified. According to the OCD Information and Communications Technology Division, disaster responder databases were used online, while disaster incident databases and historical disaster databases were used offline. However, while bugs were repeatedly being repaired and design changes were being made to historical disaster databases, problems gradually increased and the frequency of use dropped. On the other hand, staff other than those at the Information and Communications Technology Division said that they had no memory of seeing the IMS being used during disaster response activities after completion of the project, and mapping information and reports using the IMS could not be

obtained in the field study. On January 8, 2017, the IMS server became unusable due to an external DDOS attack<sup>14</sup>. At the time of ex-post evaluation, the local consultant who developed the IMS was examining the cause of failure together with the OCD, but there is no prospect of recovery. Since the three databases (Emergency Response Database, Disaster Incident Database, and Historical Disaster Database) input in the IMS were originally collected and stored in the form of Excel data from the respective OCD Regional Offices, they can be used as Excel data regardless of the failure of the IMS. However, they cannot be superimposed on the maps, nor can they be sorted and printed in report format which could have been done if the IMS was functioning.



Basic Instructor's Guide for CBDRRM Training



NDPR (Hydro-Meteorological Disasters)

## 3.2.2.2 Achievement of the Overall Goal

The table below shows the degree of achievement of each indicator of the overall goal. From the viewpoint of the indicators, it is judged that the target had been achieved at around half of the target level at the time of ex-post evaluation.

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<sup>&</sup>lt;sup>14</sup> Abbreviation for Distributed Denial of Service attack. An attack that places a large communication load on a large number of computers through the Internet and causes communication failures to the target server.

Table 3: Achievement of Overall Goal

Overall Goal	Indicator	Actual
DRRM activities conducted by	(1) Sunset Review of RA 10121 is implemented.	Achieved: The Sunset Review was conducted between 2015 and 2016.
organizations of the Government of the Philippines (GOP) are improved.	(2) LDRRMP of all LGU are upgraded.	Half achieved: The formulation of Regional DRRM Plans/Local DRRM Plans has almost been achieved in number. However, according to interviews with LGU, only the budget has been updated regularly based on Local DRRM Plans, and improvement of the quality of DRRM plans is still to be expected in the future. 15
	(3) Utilization of DRRM funds by other organizations is regularly updated in the OCD M&E system.	Half achieved: Information on the utilization of the DRRM funds of national government agencies is updated regularly by the OCD Headquarters, but the OCD Regional Offices do not have information on the utilization of DRRM funds of LGU in the region and do not report it to the OCD Headquarters. Similar to the above Indicator 2, this issue will be addressed in the future, including coordination with other relevant agencies such as the Department of the Interior and Local Government.
	(4) DRRM activities on plans, manuals and guidelines prepared through the project are implemented.	Half achieved:
	a) Response activities are conducted according to NDRP and the Operation Manual.	a) (Partially Achieved) Disaster response activities by relevant agencies are carried out in line with the NDRP. The OCD Disaster Response Operation Manual formulated in this project describes the division of roles, responsibilities, and disaster response procedures of each department related to disaster response. However, the revision of the OCD manual has not yet been completed due to the reorganization of the OCD. Also the approval of the Civil Defense Administrator is required to use the manual.
	b) CBDRRM activities at community level are conducted by utilizing instructor's guidelines other than for the pilot area.	b) (Achieved) The Instructor's Basic Guide is used for CBDRRM training and distributed to the provincial DRRM offices by the OCD Regional Offices. Also, it was used and referenced in some non-pilot municipalities in Region 2.
	(5) The concepts, systems and programs prepared through the project are operationalized.	Half achieved:
	a) DRRM activities implemented by LGU are monitored, evaluated and supported.	a) (Partially achieved) According to interviews with central and local governments, local governments receive various forms of support for DRRM activities from relevant departments and agencies, but no periodic monitoring and evaluation by OCD or other relevant agencies has been conducted.
	b) IMS is utilized for DRRM activities according to the operation manual.	b) (Not achieved) IMS is not available, and as the OCD Disaster Response Operation Manual has not been revised and approved, it is not used.

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<sup>&</sup>lt;sup>15</sup> As of January 2018, the Department of the Interior and Local Government had confirmed that Local DRRM Plans had been formulated in 79 (97.53%) of 81 states, 142 (98.61%) of 144 cities, and 1,375 (95.09%) of 1,446 municipalities. However, these plans had not been reviewed to ensure their adequacy.

Overall Goal	Indicator	Actual
	c) Training programs are implemented by DRRM TI and/or other agencies in accordance with NDRRMETP.	<ul> <li>c) (Achieved) Training Modules are used in line with the National DRRM Education and Training Program and also referred to by the Local Government Academy of the Department of the Interior and by Local Government.</li> </ul>
	d) Training programs are implemented with the OCD budget in accordance with the Civil Defense Career Education and Training Program.	d) (Achieved) OCD uses training modules to train OCD staff in accordance with the CDETP.
	e) Tangible Outcomes (e.g. Joint CBDRRM Programs and implementation by OCD and DILG. CBDRRM Programs by LGU in accordance with concept/action plan.)	e) (Not achieved) The National Guidelines for CBDRRM have not yet been approved, and various relevant agencies are implementing community DRRM activities in their own way.

Source: Documents provided by and questionnaire responses from the OCD

With regard to the Indicator 1 of the overall goal, at the time of ex-post evaluation, based on the results of the Sunset Review, the bill to revise the DRRM Act, which includes strengthening of the fundamental leadership of the organizations responsible for overall disaster prevention, was still being discussed. Currently, the OCD, which plays a central role in the DRRM activities of the Philippines, is only one of the external offices of the Department of National Defense, with an undersecretary as its head. Consequently, one of the main revelations of the Sunset Review was that the OCD was unable to demonstrate its leadership to other departments, in the event of a disaster. As a solution to this, discussions are underway to elevate the OCD to department level, or to establish a new DRRM authority to replace the OCD. A new authority would have a secretary as the head of organization with the same rank as the head of other departments. It would also have the appropriate functions and personnel to lead the Philippine DRRM activities.

With regard to the Indicator 2 of the overall goal, the guidelines for reviewing Local DRRM Plans were notified to the Chairpersons of all the Regional DRRM Councils (the Head of the OCD Regional Offices) by the Memorandum of Understanding of the National DRRM Council dated December 1, 2017. This states that regions, provinces, cities and municipalities, and barangays<sup>16</sup> organize Local DRRM Plan Review Teams and conduct reviews in accordance with the Draft Local DRRM Planning Review Tools and Checklists. The members of the review teams differ slightly from those described in the "Tools and Processes for Reviewing Local Government DRRM Plans" drafted in the activities of Output 1 of this project, but the review tools and checklists (tentative version) are as same as the ones proposed in this project. The review teams' monitoring assessment of Regional DRRM Plans and Local DRRM Plans

<sup>&</sup>lt;sup>16</sup> The lowest local government units in the Philippines

had just begun at the time of ex-post evaluation. The OCD Regional Offices of Region 2 and 3 which were visited in the field study were hardly aware of the current state of the formulation and implementation of Local DRRM Plans in the regions. Some of the LGU visited in the field study submitted their Local DRRM Plans to the OCD Regional Office, but there had been almost no feedback from the OCD Regional Office. The OCD Regional Office also submitted its Regional DRRM Plans to the OCD Headquarters, but no particular comments were made by the OCD Headquarters. Since the members of the review team do not include engineers or experts who can review from a scientific standpoint, the question of how far the content and quality of the plan can be assured (such as the appropriateness of disaster risk assessment and structural measures) is a challenge for the future.<sup>17</sup>

With regard to the Indicator 3 of the overall goal, as shown in the table above, the OCD is aware of the state of use of DRRM funds by national government agencies. However, the OCD Regional Offices are not fully aware of the state of use of DRRM funds by LGU. It is a future issue for OCD to review local DRRM funds in coordination with other relevant organizations such as the Department of the Interior and Local Government. However, in interviews with the OCD Region 3 Office, it was confirmed that the Regional Office reviewed some LGU Local DRRM Plans and budgets submitted by LGUs, and sent letters to the LGUs that those budgets were in line with the plans. Thus, it is assumed that the use of DRRM funds by LGU is partially being monitored.

With regard to a) of the Indicator 4 of the overall goal, although the disaster response activities of the relevant organizations are carried out in accordance with the NDRP, as described in 3.2.2.1, the OCD Disaster Response Operation Manual has not been used because the OCD Disaster Response Operation Manual was not revised and approved. According to interviews with the Department of Social Welfare and Development regarding b) of the Indicator 4 of the overall goal, the instructor's basic guide was prepared not only in English but also in Tagalog so that it was easy for the community to use. The Department of Social Welfare and Development highly praised that the guide t has been widely used and referenced not only by government agencies but also by NGOs.

With regard to a) of the Indicator 5 of the overall goal, it was confirmed through interviews with central agencies, regional offices and local authorities that although LGU receive support in various forms such as training and the provision of DRRM supplies, no periodic monitoring

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<sup>&</sup>lt;sup>17</sup> The Regional Review Teams comprise representatives of the regional offices of the OCD, the Department of the Interior and local governments, the Department of Social Welfare and Development, the Department of Science and Technology, and the National Economic Development Authority to review provincial and highly urbanized city's DRRM plans and confirm that the DRRM budget is in line with the plan. The Provincial Review Teams are composed of provincial DRRM officers, provincial DILG officials, and provincial social welfare and development officials to review the DRRM plans of cities and municipalities and ensure that the DRRM budget is in line with the plan. The Municipal Review Teams are composed of municipal DRRM officers, municipal DILG officials, and municipal social welfare and development officials. They review Barangay's DRRM plan and confirm that the DRRM budget is in line with the plan.

or evaluation of DRRM activities has been conducted by the OCD, the Department of the Interior and Local Government, or by the Department of Social Welfare and Development. As described in Indicators 2 and 3 of the overall goal, the OCD Regional Offices do not know much about the state of the formulation and implementation of Local DRRM Plans in the regions. On the other hand, the Department of the Interior and Local Government knows whether LGUs have Local DRRM Plans and establish Local DRRM Councils or not since those are some of the indicators of the Seal of Good Local Governance (An LGU performance Evaluation through which additional budgets are provided to high raking LGU), which is annually conducted. However, no further monitoring or evaluations have been conducted. b) As described above, the IMS developed through this project was not functioning as planned at the time of ex-post evaluation, and the OCD Disaster Response Operation Manual had been neither revised nor approved. Therefore, b) of the Indicator 5 was not achieved. If the IMS functions as intended, it is possible to provide the necessary information to decision-makers promptly and visually in the event of a disaster, so there are high expectations on the side of the counterpart personnel involved in this project regarding the restoration of the IMS. For example, the IMS can be used to map information on potential disaster responses (location and acceptance scale of hospitals and evacuation centers, number of rescue personnel, equipment, etc.) in the vicinity of disaster-stricken areas, and can be used for decision-making on the transport destination of disaster victims and the dispatch of rescue teams. At the time of expost evaluation, the OCD was collecting information from other departments and agencies and the OCD Regional Office in the form of Excel data, and processing it as necessary. However, there are problems with the Excel data format, such as difficulties in understanding distance and positional relationships, as information cannot be displayed on the map. It is, furthermore, time consuming to extract the desired information and to chart it. Regarding c) and d) of the Indicator 5, it was confirmed that training was planned and implemented by the OCD based on the National DRRM Education and Training Framework and implementation cycle (PDCA cycle<sup>18</sup>) as indicated in the National DRRM Education and Training Program and the Civil Defense Education and Training Program. The table below summarizes the training courses and the number of participants between 2015 and 2017.

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<sup>&</sup>lt;sup>18</sup> This is one of the methods for promoting production control and quality control in business activities. Products are improved by continuously repeating a cycle of four steps; Plan  $\rightarrow$  Do  $\rightarrow$  Check  $\rightarrow$  Act.

Table 4: Training Courses conducted by OCD (2015~2017) and Number of Persons Trained

Training Course	Number of Persons Trained (OCD)			Number of Persons Trained (NDRRMC Member Agencies/Private Sector)			Total
	2015	2016	2017	2015	2016	2017	
Basic Simulation Exercise Design	21			19			40
DRRM Orientation			16			63	79
Basic DRRM Course for OCD Personnel	26		54				80
Rapid Damage Analysis and Needs Analysis	41		8	67	32	71	219
Community Based DRRM Training of Trainers	40	3	5	119	35	31	233
Pre-Disaster Risk Assessment Orientation	5			76			81
Post Disaster Needs Assessment	35			59	38		132
Contingency Planning Training of Facilitator	75			35	80		190
Contingency Planning Training Course			28			94	122
Integrated Planning Course on Incident Command System		25			46	35	106
Basic Incident Command System	5	11	14	76	72	73	251
Incident Command System Executive Course			14		126	71	211
Incident Command System Position Courses		32			84		116
All-Hazards Incident Management Team Training		4			65		69
Training for Instructors			29		58	21	108
One-Day Earthquake Preparedness Orientation	13			66			79
Rapid Earthquake Damage Assessment System Training	12		•				12
DRRM for Private Sector				112	·		112
DRRM for Public Sector				86	·		86
Total	273	75	168	715	636	459	2,326

Source: Documents provided by the OCD

According to interviews with the OCD and other relevant organizations, training courses were generally well evaluated as staff of the OCD and national DRRM council member organizations, who did not have DRRM knowledge, were able to acquire the knowledge required for their work by taking a step-by-step basic training course. According to interviews with the OCD Capacity Building and Training Service, the training database developed by this project (personal data, training records, trainee database, and lecturer database) has continued to be updated and utilized since project completion. e) As for community disaster management, the National DRRM Council has not approved the National Policy on CBDRRM, so relevant organizations such as the OCD, the Department of the Interior and Local Governments, and the Department of Social Welfare and Development are conducting CBDRRM activities separately. The Department of the Interior and Local Government is implementing "Oplang Listo", a DRRM Program initiated during the Aquino administration, and the Eastern Coast Community Disaster Reduction Program, a DRRM program covering the northeastern coastal area of Luzon Island which frequently suffers from typhoons. The Department of Social Welfare and Development is implementing CBDRRM activities for the poor. However, there are some overlaps in activities and target areas, and the training modules and tools used by various organizations are not uniformly managed. The information collected at the time of activities is not uniformly managed. Based on the Concept Paper of National Policy on CBDRRM (unapproved) and the OCD Action Plan (unapproved), the OCD provided TOT for CBDRRM training using its own budget. Through this, 233 trainers were trained over three years from 2015 to 2017. The concept paper proposes that CBDRRM training should be carried out through a cascade training system, under which regions will train provincial-level trainers, provinces will train city/municipal-level trainers, cities/municipalities will train barangay-level

trainers, and eventually barangay-level trainers will train community residents. According to interviews with DRRM officers in Region 2 and Region 3, training of local-level trainers by the cascade method is possible, but whether or not training is implemented at the barangay level, which is the ultimate target, depends on the decision of local chief executives, and on the level of revenue. For this reason, when implementing CBDRRM training nationwide, a reconsideration of the training system is necessary as well as securement of the budget. In fact, Balanga city of Bataan in Region 3 that piloted CBDRRM activities under this project, conducted TOT in the city after the project was completed, and trainers who had been trained were actively engaged in CBDRRM training for residents. However, the municipality of Moron, which was also a target of the project, was unable to train trainers due to a lack of funds, and did not provide training for residents at all. In 2015 and 2016, the provincial DRRM office of Bataan provided TOT for municipalities (excluding Balanga and Moron) in the province, and in 2017 and 2018, provided CBDRRM training for barangays, which are at a high risk of disasters, utilizing the provincial budget. Regardless of whether or not they were subject to the pilot project, the local governments visited during the field study carried out CBDRRM activities such as evacuation drills and information seminars through the local DRRM offices. In areas where CBDRRM activities are conducted, many local DRRM officers have praised a minimization in damage from typhoons and other disasters. However, no systematic monitoring and evaluation of the effectiveness of the CBDRRM activities, and no full-scale verification of the impact of CBDRRM activities on disaster reduction has been carried out so far.

From the viewpoint of the degree of achievement of the indicator, it is judged that the target had been achieved at the rate of around 50% at the time of ex-post evaluation. The main reason for the lack of achievement is thought to be the time-consuming nature of high-level political decision-making and inter-department coordination. Efforts by the Government of the Philippines to improve DRRM activities after the completion of this project were ongoing at the time of ex-post evaluation for a number of indicators. Therefore, the impact is fair. It is planned that support for the formulation, monitoring and evaluation of Regional DRRM Plans and Local DRRM Plans will be included in the Phase 2 of this project (a five-year technical assistance project) scheduled to commence in FY2018, and improvement is expected to be seen within five years.

#### 3.2.2.3 Other Positive and Negative Impacts

Other positive indirect effects were observed at the time of ex-post evaluation. Among these, the positive impacts derived from NDRP and CBDRRM training modules were observed.

NDRP (Hydro-Meteorological Disasters) was revised in September 2016. NDRP (Earthquakes and Tsunami) was approved by the National DRRM Council after the project was

completed and revised in 2016. The reasons for these revisions were the reorganization of the Disaster Response Cluster from 8 to 12, the NDRP being rewritten accordingly. After the project was completed, the NDRP (Terrorism Section) was newly created at the initiative of the OCD itself on the basis of experiences gained through the formulation of NDRP (Hydro-Meteorological Disasters Section, Earthquakes and Tsunami Section). The revised edition of the NDRP (Hydro-Meteorological Disasters), the revised edition of the NDRP (earthquakes/tsunami), and the revised edition of the NDRP (terrorism edition) were approved by the National DRRM Council on January 17, 2017, and by the Memorandum of the National DRRM Council on February 2, 2017. The heads of all member organizations of the National DRRM Council were notified to implement disaster response in accordance with these NDRPs. Each NDRP (initial and revised versions) has been communicated to, implemented, and revised as necessary by the relevant agencies following the approval of the National DRRM Council. With the development of the NDRP, not only operational procedures but also roles and responsibilities have been clarified and coordination among related organizations has become easier. This has also been well received not only by OCD staff, but also by staff of other relevant organizations, such as the Department of Social Welfare and Development, the PHIVOLCS and the PAGASA. Among the four disaster preparedness cycles, the Department of the Interior and Local Government, which is the leading agency of disaster preparedness, organized the roles and responsibilities of the relevant agencies in disaster preparedness in the form of a National Disaster Preparedness Plan, referring to the NDRP. In addition, the Department of Social Welfare and Development, which is in charge of disaster response, plans in the future to develop disaster response plans based on NDRP at the regional and local government levels.19

According to interviews with the OCD and the Department of Social Welfare and Development, the CBDRRM Training Module continues to improve at the initiative of the Government of the Philippines. After consultation with the relevant organizations and NGO, a component of special care for children and disabled people was added to the Instructor's Basic Guide section which deals with the management of evacuation centers. The material was printed with the financial assistance of the Government of Luxembourg and distributed to government agencies and NGOs. It was also used and referred to by the LGU which were visited during the field study.

From the above, it can be concluded that the effectiveness and impact of the project are fair, because the achievement level of the project purposes is high and the achievement level of the overall goals is fair. In the process of achieving the overall goals, high-level political decision-making and inter-ministerial coordination are required and it is for this reason that the achievement of the overall goals takes a long time.

<sup>&</sup>lt;sup>19</sup> Four categories are "prevention and mitigation", "preparedness", "response", and "rehabilitation and recovery".

At the time of ex-post evaluation, preparations were under way for the Phase 2 of this project. Among the indicators of the overall goals of this project, Indicators 2 and 3 were not sufficiently attained. Therefore, it is planned that support for the strengthening of coordination between relevant organizations and for the capacity building of the OCD Regional Offices will be included in Phase 2.

## 3.3 Efficiency (Rating: 2)

#### 3.3.1 Inputs

The inputs of this project were as shown in the table below.

Table 5: Inputs (Plan/Actual)

Inputs	Plan	Actual
(1) Experts	7 Short-Term Experts	15 Short-Term Experts
(2) Trainees received	Participation in group training course(s) and implementation of country-focused training course(s) (Number of participants ware not specified.)	19 persons (4 persons for the Country focused training "Disaster Management", 15 persons for Counterpart training)
(3) Equipment	Equipment necessary for information management	Laptop computers, Desktop computer, Server, GIS software, etc.
Japanese Side Total Project Cost	Expenses for activities in pilot areas, etc.	Local operational budget Total 70.4 million yen
Philippine Side Total Project Cost	Assignment of counterparts     Project Office     Counterpart budget for administrative expenses	Assignment of counterparts     Project Office     Counterpart budget for project operation and management (partially shouldered expenses for workshops and meetings etc.)

Source: Ex-ante evaluation report, documents provided by and questionnaire responses from the OCD

## 3.3.1.1 Elements of Inputs

Input factors, such as the dispatch of experts, the acceptance of trainees, and the provision of equipment, were necessary to achieve the targets and results of the project, and the results are generally in line with the plan. Therefore, the timing, quality, and quantity of inputs are considered to have been appropriate.

## 3.3.1.2 Project Cost

The actual project cost was 425 million yen compared to the planned project cost of 370 million yen, which exceeded the target by approximately 15%.

According to interviews with Japanese experts, regarding activities of Output 4, the original plan was designed to support the formulation and finalization of guidelines for implementing CBDRRM activities through pilot activities. However, in the second year of the project, pilot activities were added to improve the system of CBDRRM activities, and the focus was shifted to improving the system. In line with this shift in focus, the number of Japanese experts and

local staff was increased. In addition, due to delays in project activities caused by the reorganization of the OCD, the frequent turnover of counterparts, typhoons and other disasters, in the final year of the project, in addition to the increase in the aforementioned activities of Output 4, there was also an increase in the number of local staff. This was especially necessary to recover from delays in previous project activities and to complete activities within the project period.

## 3.3.1.3 Project Period

The actual project period was 36 months (from March 2012 to March 2015), as planned.

Although the project period was as planned, the project cost exceeded the plan. Therefore, efficiency of the project is fair.

## 3.4 Sustainability (Rating: ②)

## 3.4.1 Policy and Political Commitment for the Sustainability of Project Effects

In June 2016, the new Duterte administration was inaugurated, and in October of the same year, the *AmBisyon Natin 2040* was signed and approved as a long-term national vision up to 2040. DRRM is recognized as one of the key policies in the long-term vision of the Philippines. Based on this recognition, the Medium-Term Plan *The Philippine Development Plan (2017-2022)*, which was announced in June 2017, calls for the establishment of a national DRRM agency and the formulation of a new DRRM policy that integrates the disaster cycle, as well as the strengthening of the cross-sectoral DRRM system.

From 2015 to 2016, the Sunset Review of DRRM Act was carried out to identify challenges in disaster risk governance, risk assessment, and the monitoring of disaster risk reduction activities. Based on the results of the Sunset Review, the new Duterte Administration has been discussing a bill to revise the DRRM Act, including strengthening of the leadership of the organization responsible for overall DRRM (e.g. promotion of the OCD to department level or the establishment of a new DRRM organization to replace the OCD). The House of Representatives is integrating several amendments, and discussions are expected to take some time 20. Discussions have centered on the status of the organizations responsible for DRRM. This has included discussion of the upgrading of the OCD to a Civil Defense Authority under the Department of National Defense, the establishment of a new department/authority of DRRM as a department independent from the Department of National Defense, and the establishment of an organization under the direct control of the President. If the OCD remains under the Department of National

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<sup>&</sup>lt;sup>20</sup> As of September 30<sup>th</sup>, 2018, a bill to establish the Department of Disaster Resilience had passed the House of Representatives. The bill stipulates that the Department of Disaster Resilience is subsequently in charge of prevention, mitigation and preparedness, while the OCD takes the responsibility for response, rehabilitation and recovery.

Defense, it is assumed that the new OCD will have jurisdiction over a wide range of disasters, including human disasters, based on "Civil Defense". On the other hand, if the OCD is independent from the Department of National Defense, it is assumed that the new OCD will deal with natural disasters only. In both cases, the head of the organization is expected to be upgraded from Under Secretary to Secretary. The bill to revise the DRRM Act, including the strengthening of leadership of the organizations responsible for overall DRRM, is still under discussion, and it is unclear how the bill will be finalized. However, no matter how the organizational structure responsible for DRRM is arranged, there is no doubt that the current OCD will become the main body of the new organization.

Thus, although OCD DRRM activities continue to be prioritized in terms of the DRRM policies of the Government of the Philippines from the perspective of strengthening the organizations responsible for DRRM, the DRRM Act will be revised during President Duterte's term of office (before June 2022), and it is highly likely that major institutional changes will be made.

## 3.4.2 Institutional / Organizational Aspect for the Sustainability of Project Effects

Despite the increase in work volume following the enactment of the DRRM Act, reorganization had not been made, new staff have not been hired, and the shortage of staff has been an issue for years.

In August 2015, after the completion of this project, the number of full-time staff was increased by 156, and in October 2015, the Department of Budget and Management approved the conversion of 165 contract staff to full-time staff. Furthermore, in March 2016, former President Aquino approved the establishment of 22 senior management posts (five directors of headquarters and 17 directors of regional offices), bringing the number of staff in the new OCD organizational structure and staffing pattern to 644. In response, the OCD hired 117 new employees between January and March 2016, and 283 employees were transferred within the OCD following the reorganization. When the new Duterte administration was inaugurated in June 2016, officers were appointed, including directors and above (senior management), and the number of OCD staff totaled 482 (301 full-time staff, 165 contract staff (switch to full-time staff not completed), and 16 temporary staff) as of August 31, 2016. Following this, the OCD has continuously hired new staff, with a total of 571 staff as of February 7, 2018. This included 241 (163 full-time staff and 78 contract staff) in the OCD Headquarters and 330 (244 full-time staff and 86 contract staff) in the OCD Regional Offices.

With regard to the construction of the National DRRM Training Institutes, which had been planned at the start of the project, a memorandum of understanding was signed between the Bases Conversion Development Authority and the OCD in 2016, and a site was secured in Clark Green City, in the Province of Tarlac. Development is scheduled to start here, but the date of construction has not yet been determined.

As stated in 3.4.1, if the DRRM Act is amended, the organizational structure of the OCD (including the establishment of the DRRM Training Institutes), could also be significantly changed as the implementing agency. Until such a time, however, new employment is expected to continue with the aim of establishing the 644-staff structure approved in the current organizational structure and staffing pattern.

## 3.4.3 Technical Aspect for the Sustainability of Project Effects

From a technical point of view, it was expected that there would be no particular difficulty in the OCD staff maintaining the outputs/outcomes after the project, except for the maintenance, management, and sustainable operation of the IMS.

Following the completion of this project, NDRP (Hydro-Meteorological Disasters) and NDRP (Earthquakes and Tsunami) were revised by the initiative of the Philippines, and NDRP (Terrorism) was newly prepared based on the experiences and expertise acquired through project activities. Achievements such as DRRM training modules and instructor's basic guides are also being utilized, with revisions and updates as needed. These achievements confirm the technical sustainability of the OCD.

On the other hand, as mentioned in 3.4.1 and 3.4.2 large-scale transfers and rapid new employment are taking place in line with changes in the organizational structure. Therefore, in order to sustain the effects of the project, it is necessary for the OCD to continuously conduct training and develop human resources in accordance with reorganization.

## 3.4.4 Financial Aspect for the Sustainability of Project Effects

At the central level of the OCD, planning and coordination activities do not require significant budgetary increases and are expected to be carried out within the existing operations and budgets. In fact, during the project period, the directors of the OCD Regional Offices held regular meetings at headquarters to share information. Therefore, it is assumed that it is possible for the OCD Regional Offices to be kept informed of the content and usage of the plans and manuals formulated by the OCD Headquarters in the same manner, without the need for special budgetary allocations.

Table 6 shows the budgets for the OCD from 2012 to 2017, and Table 7 shows the breakdown of the budgets for 2017. Reflecting the increase in the number of staff in 2015, the post-2015 budgets increased compared to those before 2014 (Table 6). Looking at the 2017 budget, labor costs account for about one-fourth of the total amount, while capital expenditures are very limited due to the nature of OCD operations (Table 7).

Table 6: OCD Budget from 2012 to 2017

Unit: Thousand Philippine pesos

	2012	2013	2014	2015	2016	2017
General management and support	45,635	63,050	63,419	73,197	77,413	81,151
Operation	1,175,924	594,228	607,184	942,817	950,697	400,005
Total	1,221,559	657,278	670,603	1,016,014	1,028,110	481,156

Source: OCD

Note: Operations for each year are broken down as follows. 2012-2013: a. Disaster Risk Reduction Management, b. Quick Response Fund, 2014-2016: PMO1. Disaster Risk Reduction and Management Policy Services, PMO2. Disaster Management Operations, 2017: PMO1. Disaster Risk Reduction and Management Policy Services

Table 7: OCD Budget Breakdowns for 2017

Unit: Thousand Philippine pesos

	Personnel expenses	Administrative and maintenance expenses	Capital expenditure	Total
General management and support	33,514	47,637	-	81,151
Operation	84,943	312,262	2,800	400,005
Total	118,457	359,899	2,800	481,156

Source: OCD

Budgets have been provided for the activities of each year for the four priority areas of this project, namely 1) planning and project implementation capacity, 2) information management and standardization of various activities aimed at improving the disaster response capacity, 3) formulation of human resources development and education and training plans, and 4) promotion of CBDRRM activities, based on the plans of the respective divisions in charge. It is expected that certain budgets will also be secured in the future. For example, a budget of 3,261,740 pesos (2016 budget) for CBDRRM training and a budget of 778,088 pesos (2017 budget) for CBDRRM-TOT training for 40 participants were allocated to the OCD Development and Training Division. In contrast, the budget for IMS maintenance was not allocated between 2015 and 2018. One reason for this is that the local consultants who developed the IMS provided technical support to the OCD until March 2017, two years after the project was completed, based on an agreement with the project team. Since March 2017, it has been difficult to take the necessary budgetary measures to restore and secure the IMS, partly due to the fact that the IMS has not been effectively utilized since the end of the project and also because the OCD executives do not fully understand the circumstances that it has not functioned due to attacks on servers from outside.

With regard to the allocation of budgets for the DRRM of LGU, the local chief executives and local councils have a great deal of authority, and whether or not DRRM activities (e.g. the implementation of cascading training for CBDRRM) are actively promoted depends on the wishes of the local chief executives and local councils. According to interviews in the field study, the major expenses for DRRM funds are non-structural measures (DRRM seminars for communities, evacuation drills, training of rescue personnel, purchase of relief goods, etc.).

Budgets for structural measures (river protection works, construction of seawalls, etc.) are often financed from the general development budgets of LGU.

In the light of the above, this project has seen some uncertainties and challenges in terms of policy and political commitment, institution/organization, technology, and finance, and the sustainability of the effects of the project is fair. Although DRRM continues to be a high priority in policies, there is a high possibility that major changes will be made during the Duterte administration in order to strengthen the leadership of the organization responsible for DRRM, and the organizational structure of the OCD is likely to be changed accordingly. From a technical standpoint, it is not particularly difficult for OCD staff to maintain the effects of this project. However, there is a need to continue training for OCD staff in order to develop human resources, since there are frequent transfers and rapid new hiring in line with the current reorganization. Meanwhile, major changes in the organizational structure are anticipated in the future. On the financial side, it is possible to sustain the effects of this project in conventional operations and budgets. However, in order to restore and use the IMS developed by the project, it is essential that the necessary budgets are allocated.

#### 4. Conclusion, Lessons Learned and Recommendations

## 4.1 Conclusion

The objective of this project was to strengthen the institutional and human resources capacities of the OCD, which is designated as the leading organization for DRRM activities in the Philippines. The Government of the Philippines has shifted its approach from disaster management with a focus on post-disaster response to disaster prevention during normal times. Accordingly, it has become an urgent task to strengthen the institutional and human resources capacities of the OCD in order to implement disaster management based on the new approach. The project was consistent with the development policies and development needs of the Philippines, as well as with Japan's aid policies. Therefore, the relevance of the project is high. The project produced NDRP, training programs for the staff of DRRM related agencies, manuals, and guidelines, etc. that have greatly contributed to the standardization of disaster response activities and to the capacity building of organizations and human resources. However, it takes a long time to achieve high-level political decision-making and high-level goals that require coordination among departments and agencies. Therefore, the effectiveness and impact of the project are fair. Although the project period was as planned, the project cost exceeded the plan. Therefore, the efficiency of the project is fair. In terms of sustainability, DRRM policies have had high priority. However, discussions are continuing on amending laws to strengthen the leadership of the organizations responsible for DRRM and there is a high possibility that the organizational structure of the OCD will be changed in the near future. There are some uncertain factors and issues in terms of policies, institutions, organizations and technologies. Thus, the sustainability of the effects generated by this project is fair. In light of the above, this project is evaluated to be partially satisfactory.

#### 4.2 Recommendations

## 4.2.1 Recommendations to the Implementing Agency

# (1) Establishment of an organizational framework for the handover, sharing and utilization of the outputs of this project

Due to frequent transfers, rapid new hiring associated with organizational changes, and disaster response activities, information sharing is not surely done within the OCD. Nor does it ensure the handover of information. The outputs of this project were formulated and developed according to the high needs of the OCD, but there are some outputs that had not been utilized at the time of ex-post evaluation. The OCD Disaster Response Operation Manual was completed at the time of project completion, but it was anticipated that the OCD would be reorganized. Therefore, after the organizational structure was changed, necessary modifications were made, and the manual was to be used with the approval of the Civil Defense Administrator. In addition, the IMS was available at the time of project completion, but has hardly been used since then. Since March 2017, no maintenance and operation budget for the IMS has been allocated, and it was impossible to use the IMS at the time of ex-post evaluation. The outputs are expected to contribute significantly to the disaster response activities of the OCD if they are used for the intended purposes. However, despite the fact that they were referred to in Recommendation 2 of the terminal evaluation in 1.3.3, there is no system within the OCD to monitor the final approval of the outputs, and the expected effects have not been realized due to inadequate follow-up after completion. In the future, it is recommended that the outputs and reports of this project be stored in an appropriate location in the form of hard copy and soft copy and that the information be disseminated within the OCD so that it can be referred to and shared whenever necessary, even if there is a reorganization or transfer. In addition, a list of outputs that are not used at the time of ex-post evaluation should be presented, clarifying by whom (office, division, individual), when, and how they should be dealt with. A system that enables the management level of the OCD to monitor progress should also be proposed.

## (2) Role of the OCD in disseminating the outputs of this project to regions and LGU

Many of the indicators that were not achieved at the time of ex-post evaluation require collaboration with relevant agencies/organizations in order to disseminate the results of the project (plans, training modules, tools, etc.) to regions and to LGU. As pointed out in Recommendation 6 of the terminal evaluation in 1.3.3, cooperation with the Department of the Interior and Local Governments is especially important in order to disseminate the outputs of

the project to LGU. For example, the capacity building of LGU is essential for the formulation, review and implementation of Local DRRM Plans, but the capacity building of approximately 1,600 local governments is difficult for the OCD to manage alone. The same applies to the capacity building of many barangays and communities. Although the OCD has been consulting with the Department of the Interior and Local Government, no effective cooperative system has been established at this time. As a result, the OCD and the Department of the Interior and Local Government conduct their own training, and no efficient training system has been developed. The Department of Social Welfare and Development has also implemented similar training programs targeting the poor, and here there is an overlap. To maximize the effectiveness of capacity building, it is recommended that the OCD takes the initiative and acts as a coordinating body by sharing the content of the training provided by the relevant organizations and considering the division of responsibilities.

Further collaboration between the OCD Headquarters and the OCD Regional Offices is necessary in order to disseminate the outputs of this project to regions and LGU. The OCD consists of headquarters and 17 regional offices. Between them, the OCD Headquarters develops guidelines, manuals, tools, etc., and the OCD Regional Offices mainly target and disseminate these mainly at the provincial level (following this, it is expected that they will be disseminated from the provincial to the city and municipal levels). The OCD Headquarters issued a memorandum circular of the National Council of DRRM dated December 1, 2017, to the Chairperson of the Regional DRRMC (the Head of the OCD Regional Offices) with guidelines for reviewing Local DRRM Plans, and instructed each region and LGU to establish its Local DRRM Plan Review Team. As of July 2018, the OCD Headquarters was aware that Review Teams had been established in all regions, but it was not known to what extent Review Teams had been established in LGU. In addition, some commented that although they submitted Regional DRRM Plans to the OCD Headquarters, no feedback had been provided to date. In order for the OCD to fulfill their responsibilities in assisting with the formulation and review of Regional DRRM Plans and Local DRRM Plans, and the monitoring of the implementation of the plans, it is recommended that the OCD develops a system to check what extent OCD Regional Offices implement the guidelines notified by the memorandum circulars, to periodically follow up on what issues arise, and to provide appropriate feedback from the OCD Headquarters to the OCD Regional Offices.

## 4.2.2 Recommendations to JICA

None.

#### 4.3 Lessons Learned

Flexible changes in the project design in response to changes in the organizational structure of the implementing agency, and the development of a management system for outputs after the completion of the project

In accordance with the progress of DRRM in the Philippines, this project revised the PDM by reviewing the outputs, activities, and indicators set at the time of ex-ante evaluation, thereby maintaining a high degree of consistency with development needs. In addition, this project was implemented in the context of frequent turnovers of counterparts and organizational restructuring caused by the lack of definite organizational structure and staffing patterns which expanded the roles to be played by the enactment of the DRRM Act. Therefore, a flexible approach was adopted to prepare outputs in line with the transitional organizational structure of the OCD, and to then finalize and approve the outputs after the establishment of the new organizational structure of the OCD. In this way, as the project was implemented in a changing situation or organizational structure, it could be made more effective by flexibly modifying the project design in accordance with the changes.

In this project, however, although many of the outputs had been made available by the time of completion, due to subsequent organizational changes and personnel transfers, there were outputs that were not properly updated, approved, or maintained, and the impact did not materialize as expected. If responsibilities and information are concentrated on a specific individual, it is difficult for an organization to hand over and share the outputs of the project. If changes in the situation and the organizational structure can be anticipated, it is important to consider and develop a management system for outputs after the completion of the project (regarding who should do what by when and which division would monitor it). It is imperative to keep them in the form of documents.

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