

Socialist Republic of Viet Nam

Ex-Post Evaluation of Technical Cooperation Project

“The Project for Building Disaster Resilient Societies in Central Region in Vietnam”

External Evaluator: Kenichi Inazawa, Octavia Japan Co., Ltd.

0. Summary

This project aimed to strengthen community-centered water-related disaster management systems, targeting the Hue, Quang Nam and Quang Ngai Provinces, located in central Vietnam. This project is consistent with the National Strategy for Natural Disaster Prevention, Response, and Mitigation (2007–2020), which places importance on community-based disaster management and responds to the need to strengthen disaster management systems in Vietnam, as the country faces multiple water-related disasters. Thus, this project is in line with the development policy and development needs. It is also consistent with the assistance policy of Japan, represented by the “Initiative for Disaster Reduction through ODA.” Therefore, the relevance of the project is high. The outputs of this project were achieved in each above-mentioned target province, and the water-related disaster management systems of the communities were strengthened; thus, the effectiveness and impact are also high. While the project period was as per the initial plan, the project cost slightly exceeded the initial plan; thus, the efficiency is fair. This project has remained consistent with the development policy and needs of Vietnam even after the completion of the cooperation. Additionally, almost all staff members who gained knowledge and developed abilities in the area of disaster management through this project have remained on duty and are maintaining their technologies and abilities by attending training after the completion of this project. Furthermore, the central government allocates sufficient budget to the Ministry of Agriculture and Rural Development (hereafter referred to as “MARD”) and for various disaster management measures. No major problems have been observed in the policy background or in the organizational, technical, and financial aspects of the implementing agency. Therefore, the sustainability of the project’s effects is high.

In light of the above, this project is evaluated to be highly satisfactory.

1. Project Description



Project location¹



Evacuation center constructed through this project
(An Xuan Village in Hue Province)

1.1 Background

Vietnam has long been exposed to risks of water-related disasters caused by typhoons and heavy rains. In particular, areas near rivers in central Vietnam have been affected by wind and floods, as well as sediment disasters, every year due to their climate and geographical conditions. The occurrence of typhoons and heavy rains and the associated floods has continued to increase, presumably because of climate change; in 1999 approximately 800 people died, and the economic damage amounted to 300 million USD. It has been anticipated that the situation will worsen due to climate change. Thus, the government of Vietnam was faced with the need to strengthen structural and non-structural measures² against water-related disasters. Under such circumstances, the government of Vietnam requested that the Japanese government implement a project with the aim of strengthening community-centered water-related disaster management systems. In the requested project, pilot sites (nine sites) were selected from the target provinces: Hue, Quang Nam, and Quang Ngai Provinces in central Vietnam. The proposed project aimed to: (1) strengthen organizational capacities for disaster management at provincial, district, and commune levels; (2) develop manuals for promoting community-centered disaster management; (3) develop standard designs and construction manuals for low-cost, small-scale structural measures against river bank erosion; and (4) strengthen the central government's capacity to support local governments such as local provincial government in the central region, in the area of disaster management.

¹ A large dotted ellipse line shows central Vietnam, while the top star mark indicates Thua Thien Hue Province, the middle star mark indicates Quang Nam Province; and the bottom star mark indicates Quang Ngai Province.

² Structural measures refer to disaster management measures that use facilities and structures (e.g., *sabo* dam) designed to stop/control/reduce disasters. On the other hand, non-structural measures represent the capacity side of the matter, such as strengthening capacities for disaster management and nurturing human resources.

1.2 Project Outline

Overall Goal		Measures against water-related disasters, adapted to the exacerbating effects of global climate change, are strengthened in central Vietnam.
Project Purpose		Community-centered disaster management (CCDM) systems are strengthened in the project areas (Thua Thien Hue Province, Quang Nam Province, and Quang Ngai Province)
Outputs	Output 1	Organizational capacities for disaster management at provincial, district, and commune levels are developed.
	Output 2	A manual for promoting CCDM is developed.
	Output 3	Appropriate technologies for low-cost, small-scale structural measures against river bank erosion are developed.
	Output 4	MARD's supporting capacities in disaster management for local governments are developed.
Total Cost (Japanese Side)		482 million yen
Period of Cooperation		March 2009–February 2012
Implementing Agency		Counterpart: Ministry of Agriculture and Rural Development, etc. Implementing Agency: People's Committee of Thua Thien Hue, Quang Nam, and Quang Ngai Provinces
Supporting Agency/Organization in Japan		Earth System Science Co., Ltd., IDEA Consultants, Inc.
Related Projects		<p>【Technical Cooperation】</p> <ul style="list-style-type: none"> • “Project for Building Disaster-Resilient Societies in Vietnam (Phase II)” (August 2013–August 2016) <p>【ODA Loan】</p> <ul style="list-style-type: none"> • “Support Program to Respond to Climate Change” (Loan agreement signed in November 2011) <p>【Grant Aid Projects】</p> <ul style="list-style-type: none"> • “The Project for Rehabilitation of Small-Scale Reservoirs in Quang Ngai Province” (August 2010–February 2011) <p>【Other International Organizations and Aid Agencies】</p> <ul style="list-style-type: none"> • “Natural Disaster Risk Management Project” (2005–2010, World Bank)

1.3 Outline of the Terminal Evaluation

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

At the time of the terminal evaluation, it was judged that the project's purpose was likely to be achieved based on the fact that the information communication system used to disseminate information to all residents had improved through disaster management workshops and evacuation drills, the operational capacities of local government staff engaged in disaster management had improved through project activities, and training programs, such as community-based disaster management, had been established by the Government of Viet Nam and managed by MARD.

1.3.2 Achievement Status of Overall Goal at the Time of the Terminal Evaluation

The overall goal of this project was to strengthen measures against water-related disasters and build resilience against the increasing risks of water-related disasters associated with climate change in central Vietnam through developing hazard maps adapted climate change and water-related disaster management plans at the provincial level in central Vietnam by establishing Disaster Management Divisions (hereafter referred to as "DMD") within the provincial governments in central Vietnam and through activities promoting community-based disaster management. At the time of the terminal evaluation, it was unclear whether the overall goal would be achieved. On the other hand, it was thought that the overall goal could be achieved if the outputs of this project were replicated in other provinces of central Vietnam, as this project dealt with water-related disasters affected by climate change.

1.3.3 Recommendations at the Time of the Terminal Evaluation

At the time of the terminal evaluation, the following recommendations were made to those engaged in the project.

- (1) It was recommended that flood simulation and its results be used, considering that project counterparts requested additional training in the area of flood simulation.
- (2) This project was fairly well received by other development partners and NGOs engaged in community-based disaster management in central Vietnam. The outcome of the project and the pro-active attitudes of the project experts contributed to establishing a foundation for future collaboration at local levels. However, such recognition at local levels was not necessarily shared by their regional and country offices. Thus, it is recommended that aid coordination be promoted at the level of central government led by MARD.
- (3) The outputs of this project, guidelines and manuals, as well as the training course developed through this project, should be fully shared among project stakeholders and need to be promoted

in central Vietnam. It is recommended that these also be shared with and that other development partners be informed of their availability.

(4) The training for this project, which took the form of Training of Trainers (hereafter referred to as “TOT”), used the cascading method³ (hereafter referred to as the “cascade method”); this was designed so that those trained staff of Department of Agriculture and Rural Development (hereafter referred to as “DARD”), the local division of MARD would pass on their knowledge and skills to the district level and then to the commune levels. However, the mechanism of how the DARD staff would pass onto other levels was not clearly indicated in the TOT of this project; rather, staff members were all trained together at one time. There was also no clear monitoring method to ensure that trainers would maintain their abilities. Therefore, it was recommended that a manual be developed that would specify how trained and certified trainers such as DARD staff would train staff of other levels, using the cascade method, thereby strengthening the project’s support to the district and commune levels.

(About TOT and the Training Manual)

In this project, TOT was conducted following the cascade method; trained DARD staff members became facilitators and trainers for provincial/district/commune staff members at succeeding trainings. However, there was no clarity in terms of the training scheme for the TOT of this project—the way in which DARD staff would pass their knowledge onto other levels. There was also no clear monitoring method for maintaining the abilities of trainers. Thus, it was recommended at the time of terminal evaluation that a manual be developed by the end of the project with a view toward specifying how the cascade method by certified trainers was designed to work. It was confirmed at the time of the ex-post evaluation that a TOT manual on “community-based disaster management” had been developed and that the DARD disaster management focal points of the three provinces had been conducting Community-Based Disaster Risk Management” training (hereafter referred to as “CBDRM training”) in communes that were not the pilot sites.⁴ On the other hand, it was not confirmed that TOT manuals for training courses on “Bank Erosion Measures” and “Disaster Management Planning (Integrated Flood Management)” had been developed. According to MARD, the TOT manual on “Bank Erosion Measures” was pending internal approval at the time of the ex-post evaluation (as of April 2015), while the manual on “Disaster Management Planning (Integrated Flood

³ This refers to the system in which trained training participants become facilitators or trainers for the succeeding training, thereby transferring knowledge and technologies to incoming trainees.

⁴ For example, in the case of Hue Province, training had been conducted in 55 of the 150 communes existing in the province, with approximately 750 participants, up until the time of the ex-post evaluation. On the other hand, in Quang Nam Province, training was conducted in 2013, targeting the five most disaster-prone of the 50 communes existing in the province. It was also confirmed that there was a plan to conduct training in 10 additional communes in 2014. In the case of Quang Ngai Province, it was confirmed that disaster management training was given to the 55 most disaster-prone communes in 2011 and 2012.

Management)” was under preparation.⁵

2. Outline of the Evaluation Study

2.1 External Evaluator

Kenichi Inazawa (Octavia Japan Co., Ltd.)

2.2 Duration of Evaluation Study

Duration of the Study: August 2014–December 2015

Duration of the Field Study: October 6–18, 2014 and April 18–24, 2015

3. Results of the Evaluation (Overall Rating: A⁶)

3.1 Relevance (Rating: ③⁷)

3.1.1 Relevance to the Development Plan of Vietnam

At the time of the ex-ante evaluation, the government of Vietnam had formulated the “10-year Socio-Economic Development Strategy” (2001–2010). In this strategy, natural disaster measures were indicated as one of the priority strategies in central Vietnam. The Vietnamese government also developed the “National Strategy for Natural Disaster Prevention, Response, and Mitigation (2007–2020),” in which community-based disaster prevention was proposed as part of the country’s natural disaster policy. In this strategy, specific targets were set, such as strengthening capacities for forecasting natural disasters, including wind and flood damages; integrating disaster prevention and mitigation plans with socioeconomic and sector development plans; enhancing capacities of local government staff engaged in disaster management; and strengthening bank systems. Additionally, the government formulated the “National Target Program to Respond to Climate Change” in 2008 as a comprehensive climate change measure. This program said that “strengthening water resource management, improving systems for disaster reduction in the coastal areas, and enhancing capacities for disaster management” were among the priorities.

On the other hand, at the time of project completion, strengthening community-based disaster management and water resource management continued to be viewed as important in the above-mentioned “National Strategy for Natural Disaster Prevention, Response, and Mitigation (2007–2020)” and “National Target Program to Respond to Climate Change”; thus, the purpose of this project, which was “to strengthen community-centered disaster management systems”, is judged

⁵ With regard to the training on “Bank Erosion Measures” and “Disaster Management Planning (Integrated Flood Management)”, MARD has a plan to hold training in the future by utilizing the TOT manuals. At the time of the ex-post evaluation (April 2015), MARD was in the process of requesting the necessary budget from the central government.

⁶ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

⁷ ③: High, ②: Fair, ①: Low

to be appropriate and consistent with the above strategies and program.

In light of the above, it can be concluded that this project, which aimed to address natural disasters, had been consistent with the national development policy of Vietnam since its commencement and through its completion.

3.1.2 Relevance to the Development Needs of Vietnam

At the time of the ex-ante evaluation, Vietnam faced a high risk of water-related disasters caused by typhoons and heavy rains. Typhoons and heavy rains associated with floods were increasing, presumably due to climate change. It was anticipated that this trend would worsen as the impacts of climate change became greater. Thus, the Vietnamese government needed to significantly strengthen its structural and non-structural measures against water-related disasters. In particular, wind and floods, as well as sediment disasters, affected areas along rivers in central Vietnam almost every year. Thus, strengthening non-structural and structural measures was an urgent issue.

On the other hand, the same area continued to face wind and floods, as well as sediment disasters, during the implementation of this project. In early and mid-October 2010, areas such as the Ha Tinh and Quang Binh Provinces were hit by large-scale floods twice in one year, which left more than 160 people either dead or missing. The areas targeted by this project, such as Thua Thien Hue Province (hereafter referred to as “Hue Province”), Quang Nam Province, and Quang Ngai Province, were also frequently affected by natural disasters. The casualties and scale of damage (in monetary terms) were as shown in Table 1. Therefore, it can be said that urgent measures to prevent and reduce flood-related damages continued to be needed after the completion of this project and that this project, which aimed to strengthen flood controls and measures against water-related disasters, is consistent with the development needs of Vietnam.

Table 1: Damages from Natural Disasters in Three Provinces of Central Vietnam
(Accumulated Figures for 2009–2012)

Item	Hue Province	Quang Nam Province	Quang Ngai Province
Incidence of floods (no. of floods)	5*	11	21
Dead (people)	39	93	127
Injured (people)	84	No data	728
Total damage	1,516 billion VND	4,245 billion VND	7,254.1 billion VND

Source: Answers to the questionnaires

Note*: For Hue Province, the number of rivers' water levels exceeding alert level three, as an exact figure, was not available.

Remark: 100 million VND = approx. 500,000 Japanese yen (exchange rate as of October 2014)

3.1.3 Relevance to Japan's ODA Policy

In January 2005, Japan released the "Initiative for Disaster Reduction through ODA," which stipulated its basic official development assistance policy for developing countries in the area of disaster management. In this initiative, it was said that Japan would promote assistance utilizing Japan's experience, knowledge, and technologies, that the focus would be on assisting on the software side of things (e.g., system building, human resource development, and planning), and that strengthening the disaster management capacities of individuals and local communities would be emphasized. Thus, it is considered that the Japan's ODA policy is in line with the direction of this project, and therefore, it can be concluded that this project is consistent with Japan's assistance policy.

This project was highly relevant to the country's development plan and development needs, as well as to Japan's ODA policy. Therefore, its relevance is high.

3.2 Effectiveness and Impact⁸ (Rating: ③)

3.2.1 Effectiveness

3.2.1.1 Project Output

Output 1: "Organizational capacities of disaster management at provincial, district, and commune levels are developed."

At the time of the completion of this project, it was confirmed that the indicator 1-1 had been moderately achieved and that all of the other indicators had been achieved; thus, it can be concluded that Output 1 was generally achieved.

Indicator 1-1: Existence of specialized DMDs in Quang Nam and Thua Thien Hue Provinces

At the time of the terminal evaluation, it was confirmed that a DMD had been formally established in Hue Province. On the other hand, in Quang Nam Province, a DMD had not been established because it was decided that the staff of the Sub-Department of Water Resource and Flood and Storm Control under the DARD would also function as a DMD, due to budget and staff shortages. Thus, at the time of the terminal evaluation, it was determined that the indicator 1-1 had been partially achieved. Through interviews conducted at the time of ex-post evaluation, it was confirmed that staff of the Sub-Department of Water Resource and Flood and Storm Control under DARD would continue to function as a DMD in Quang Nam Province for some time, due to budget and staff shortages. In other words, it was confirmed that the establishment of a DMD had not been accomplished in Quang Nam Province at the time of the project's completion. Therefore, it was determined that this indicator had been moderately achieved.

⁸ The sub-rating for Effectiveness is to be given in consideration of the Impact.

Indicator 1-2: Number of Disaster Management Plans (DMPs) and integrated flood management plans (Target: One DMP for each target province, district, and commune, and one integrated flood management plan for each target province.)

At the time of the terminal evaluation, it was confirmed that a DMP had been developed in each target province, district, and commune. Additionally, according to the JICA provided document, an integrated flood management plan was developed in Hue Province, which was approved and was actually in use as an official DMP. On the other hand, in Quang Nam Province, recommendations for the “Plan for Integrated Natural Disaster Risk Management (–2020)” (which plays a similar role to the above-mentioned integrated flood management plan), developed with the World Bank’s assistance, were prepared. This document was then submitted to Quang Nam Province as one of the materials used for implementing the above plan.⁹ Thus, it was concluded that this indicator had been achieved.

Indicator 1-3: Number of hazard maps in the project target area (Target: Two flood hazard maps, two river bank erosion maps, and two sediment disaster maps)

At the time of the terminal evaluation, it was confirmed that three kinds of hazard maps (flood, sediment, and bank erosion) had been completed in both the Hue and Quang Nam Provinces. Thus, it was determined that this indicator had been achieved.

Indicator 1-4: Level of achievement of the delivery of flood information to every resident in pilot site (Target: 100%)

According to residents of the pilot sites and the community-based disaster management experts who were interviewed at the time of the terminal evaluation, an intentionally redundant CFSC warning communication channel and method, which was designed to ensure information reached all residents, had been established or improved through workshops and evacuation training for the communes’ Committees for Flood and Storm Control (hereafter referred to as “CFSC”) (i.e., 100% transmission level was achieved). Additionally, it was confirmed that necessary communication equipment, such as speakers and radios, was supplied to CFSC. Thus, it can be concluded that this indicator had been achieved.

Output 2: “A manual for promoting CCDM is developed.”

It can be concluded that Output 2 has been achieved because indicator 2-1 below was achieved.

Indicator 2-1: Existence of the manual for promoting CCDM

According to the JICA provided document, it was confirmed that a manual for promoting community-based disaster management had been developed during this project. This manual

⁹ In Quang Nam Province, this document has been referred to as a material for annual disaster management planning since the completion of this project.

reflects situations surrounding disasters in Vietnam and explains how to implement community-based disaster management step-by-step, while specifying the conditions necessary for the promotion and continuation of community-based disaster management activities.¹⁰ Thus, it can be concluded that this indicator has been achieved.

Output 3: “Appropriate technologies for low-cost, small-scale structural measures against river bank erosion are developed.”

At the time of the completion of this project, Indicator 3-1 below had been achieved; and thus, it can be concluded that Output 3 has been achieved.

Indicator 3-1: Existence of the Guidelines for River Bank Erosion Management

According to the JICA provided document, it was confirmed that guidelines for low-cost, small-scale structural measures against river bank erosion had been developed during this project.¹¹ Thus, it can be concluded that this indicator has been achieved.

Output 4: “MARD’s supporting capacities in disaster management for local governments are developed.”

At the time of the completion of this project, it was confirmed that Indicators 4-1 and 4-2 below had been achieved; thus, it can be concluded that Output 4 has been achieved.

Indicator 4-1: Existence of draft of new technical guidelines for river structures, integrating low-cost, small-scale structural measures for bank erosion

According to the Terminal Evaluation Report and interviews conducted during the ex-post evaluation, technical aspects intended for the Guidelines for River Bank Erosion Management were incorporated into the new guidelines for river structures, integrating low-cost, small-scale structural measures for bank erosion, by the completion of this project. In other words, although the intended “technical guidelines for low-cost, small-scale structural measures for bank erosion” had not been developed, the guidelines for bank erosion measures have been developed, and these incorporate what was intended for the former. Thus, it can be concluded that this indicator has been achieved.

Indicator 4-2: Number of disaster management training courses for local government officials (Target value: Three courses are newly established)

According to the JICA provided document, three training courses were established:

¹⁰ This manual was well received by those involved in the project, as it is practical, with ample examples of actual cases. According to the interview with MARD during the ex-post evaluation, this manual was distributed to the pilot communes, districts, and the three target provinces during project implementation or at the time of the project’s completion. It was also confirmed through the interviews that those engaged in disaster management at different levels are using this manual for their activities related to community-based disaster management.

¹¹ Through interviews conducted during the ex-post evaluation, it was confirmed that MARD had been formally designated to develop, advertize, and distribute these guidelines as specified in an order from the Prime Minister’s Office (No. 01/2011).

“Measures against Bank Erosion,” “Community-based Disaster Management,” and “Flood Simulations and Disaster Management Planning (Integrated Flood Management).”¹² It was also confirmed that these courses were conducted in the second and third years of this project and that training materials used for these training courses had been revised as needed by the implementing partner under the supervision of the project experts. Thus, it can be concluded that this indicator has been achieved.

3.2.1.2 Achievement of Project Purpose

Table 2 shows the indicators for the project’s purpose and the actual values.

Table 2: Level of Achievement of the Project Purpose

Purpose	Indicator	Actual
Community-centered disaster management (CCDM) systems against water-related disasters are strengthened in the project areas.	Indicator 1) Level of awareness and knowledge of the residents in pilot sites (hamlets) about disaster risks, measures to be taken before and after disasters, location of evacuation shelters, and evacuation routes (Target: 70% of residents have sufficient knowledge)	Through interviews during the ex-post evaluation and answers to the questionnaires, it was confirmed that a system had been established for the information to reach community members by the completion of this project. ¹³ Thus, it is concluded that Indicator 1 has been achieved.
	Indicator 2) Level of disaster management capacities of target provincial, district, and commune governments (Target: 100% of staff responsible for natural disaster management in target provinces, districts, and communes attend the workshop/seminar held by the project)	Through interviews during the ex-post evaluation and answers to the questionnaires, it was confirmed that capacities of local government staff had been strengthened by the completion of this project. Additionally, it was confirmed that participant lists were developed for each

¹² In Quang Ngai Province, flood simulations were not implemented in this project, as they were not a part of the project activities from the beginning. Project activities were limited in Quang Ngai Province when compared to those of Hue and Quang Nam Provinces. (The only activity that was implemented in Quang Ngai Province was that of community-based disaster management.)

¹³ There was no clarity about how to verify the target: whether or not “70% of residents have sufficient knowledge.” On the other hand, it was observed from the interviews with those involved in this project that two-thirds of the residents had gained or already had knowledge, as specified in Indicator 1. Thus, it can be concluded that this indicator was sufficiently achieved.

		<p>training and workshop done by the project, in collaboration with the implementation partner, during project implementation. Based on these lists, it was confirmed that 100% of the local government staff participated. Thus, it can be concluded that Indicator 2 has been achieved.</p>
	<p>Indicator 3) Level of central government's capacities for the disaster management support for local governments (Target: Disaster management training courses for local government officials shall be held annually by central government staff)</p>	<p>Through interviews during the ex-post evaluation and answers to the questionnaires, it was confirmed that training programs had been established by MARD at the time of the completion of this project.¹⁴ However, training in the third year was conducted with the partial support by DARD in Hue and Quang Nam Provinces. The initial plan was that MARD would provide the necessary funds for such training, or at least that there would be a plan that MARD would allocate the necessary funds. However, at the time of the terminal evaluation and the project's completion, there was no prospect that it would be funded. Thus, it can be</p>

¹⁴ Through the ex-post evaluation, it was confirmed that TOT manuals existed for “community-based disaster management” and that DARD’s disaster management focal persons were continuing to give CBDRM training to the communes that were not the pilot sites targeted by this project in the three target provinces. For example, in the case of Hue Province, DARD offices have plans to give CBDRM training to 90 of the 150 communes that exist in the province. By the time of the ex-post evaluation, training had been completed in 55 communes, with the participation of roughly 750 residents. Budgets for these trainings came from the Provincial People’s Committees. On the other hand, in Quang Nam Province, disaster management training was conducted in 2013 for five of the 50 disaster-prone communes that exist in the province. In 2014, disaster management trainings were planned for an additional 10 communes. Additionally, it was confirmed that disaster management training was given to 55 disaster-prone communes in 2011 and 2012 in the case of Quang Ngai Province.

		concluded that this indicator was moderately achieved.
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Source: Document provided by JICA (the terminal evaluation report, etc.); the questionnaires and interviews conducted during the ex-post evaluation.

Regarding Indicator 1), it was confirmed that residents deepened their understanding of disaster risks through the disaster management workshops of this project and that they were aware of evacuation shelters and routes based on hazard maps.¹⁵ Additionally, it was confirmed through the JICA provided document, questionnaires, and interviews of the ex-post evaluation that commune-level disaster response plans had been developed in all nine pilot sites at the time of the project’s completion. It was also confirmed through interviews with residents that pre- and post-disaster responses were well communicated to all residents through community meetings, utilizing memorandums.¹⁶ In addition, a beneficiary survey¹⁷ was conducted, targeting residents of the pilot sites during the ex-post evaluation, in order to assess their level of satisfaction with this project, acquired knowledge, and capacities. As shown in Figure 1 and Figure 2, residents improved their knowledge about disaster management and their awareness of evacuation shelters and routes. Also, it can be observed in Figure 3 and Figure 4 that the residents continued to utilize the knowledge they had acquired through this project during disasters after the project’s completion up through the time of ex-post evaluation.¹⁸ Therefore, it is observed that many residents are equipped with knowledge about pre- and post-disaster responses, evacuation shelters, and routes; thus, it can be concluded that this indicator has been achieved.

¹⁵ It was confirmed that residents demonstrated that they were aware of the priorities before and after water-related disasters at evacuation drills. Apart from ordinary members of communes, the training of this project focused on CFSC, such as village leaders and village groups, and agricultural cooperatives. Through interviews, it was confirmed that information was shared among community members and that many residents were equipped with the necessary knowledge.

¹⁶ For example, interviews in An Xung Village in Hue Province revealed that those engaged in this project at district and provincial levels responded quickly when the flood occurred during project implementation (2011). Residents were also able to evacuate before the situation became serious, having quick responses.

¹⁷ One site was selected from each of Hue, Quang Nam, and Quang Ngai Provinces, and from each site, the residents who participated in the activities of this project were randomly selected (n=50). During the implementation of this project, pilot sites were selected from each province (nine sites in total). The total number of people who participated in the project activities (i.e., population) is estimated to be 20–25 at each site, 180–225 people in total.

¹⁸ Commune leaders commented, when interviewed about disaster responses, “When a disaster occurred after the completion of this project, we sent early warning to residents and notified them about how to evacuate in advance; thus, the evacuation went smoothly, minimizing the casualties.” Therefore, it can be presumed that the knowledge and skills gained through this project are being utilized.

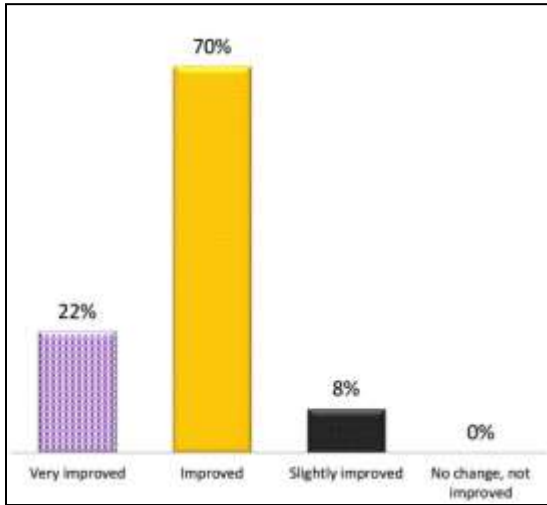


Figure 1: Awareness and knowledge of disaster management improved through the workshops of this project (n=50)

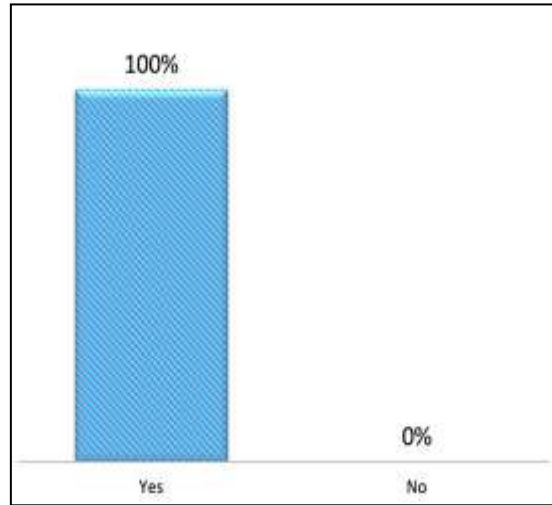


Figure 2: Have you been aware of the evacuation shelters and routes in case of disasters since the project's completion and up through the ex-post evaluation? (n=50)

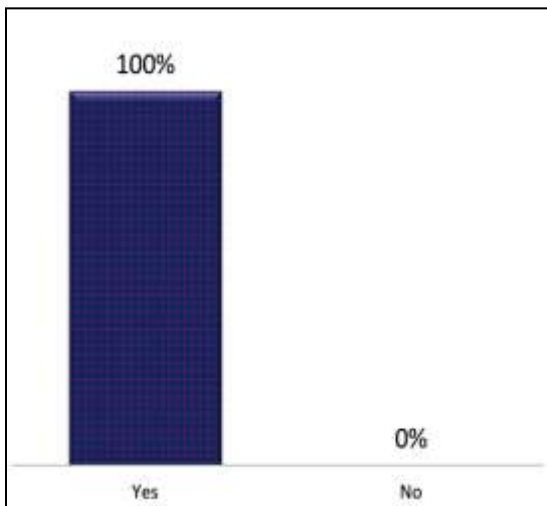


Figure 3: Are you utilizing the knowledge and skills acquired through this project during disasters after the project's completion and up through the time of ex-post evaluation (n=50)

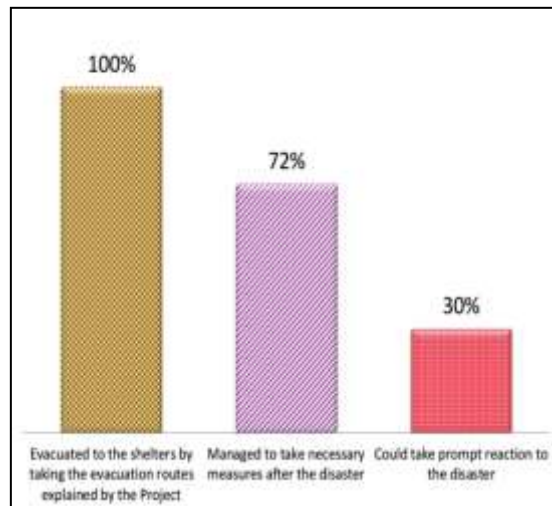


Figure 4: How exactly are you utilizing your knowledge and skills in relation to Figure 3? (n=50, multiple answers allowed)

Regarding Indicator 2), a total of 710 people participated in seven large-scale workshops, according to the JICA provided document. The main themes of the workshops were “integrated flood management planning,” “community disaster management,” and “bank erosion measures.” In addition, seminars were conducted on the themes of climate change, warning and evacuation, community-based disaster management, flood management plans, GPS utilization, river bank erosion, hazard maps, responses to large disasters, earthquake and tsunami, local disaster management plans, and dam management. Participants were disaster management government officials from the central region, such as the three target provinces. Furthermore, it

was confirmed that the participant lists were developed by the project staff and implementing agency for every training and workshop conducted during project implementation, according to the terminal evaluation report.¹⁹ Based on these participant lists, it was confirmed that 100% of the target population participated.

In addition, a beneficiary survey targeted those engaged in disaster management in central Vietnam,²⁰ as in the case of Indicator 1), to check their level of satisfaction with this project and their acquired knowledge and capacities. As shown in Figure 5, many staff members admitted that their knowledge and capacities had improved concerning bank erosion measures, flood simulations, disaster management planning, flood hazard maps, early warning, resident evacuation, and responses during disasters. Additionally, as shown in Figure 6, they continued to have opportunities after the project’s completion and up until the ex-post evaluation to upgrade the knowledge and skills they had acquired through the activities of this project (e.g., workshops and seminars). Furthermore, according to MARD, of all of the participants, only one employee from Hue Province left his/her job, while the rest continued to work for the same offices after the completion of this project. It can be confirmed that the project’s effects are sustained, and thus, it can be concluded that this indicator has been achieved.

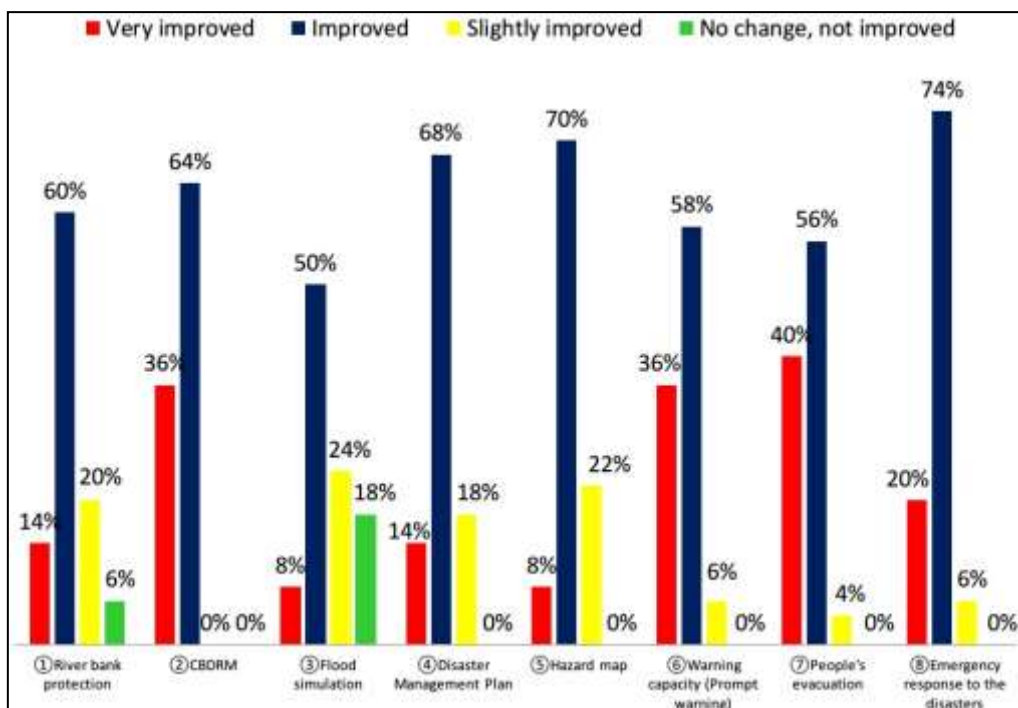


Figure 5: Knowledge and capacities developed through this project (n=50)

¹⁹ These participant lists were developed while paying attention to the fact that the participants were staff in charge of disaster management and by considering the relevance to their regular duties. The lists were also used as attendance lists to check their participation in the training and seminars.

²⁰ Samples were randomly selected from CFSC staff from the provinces, districts, and communes that were in charge of the pilot sites and that took part in the activities of this project (n=50).

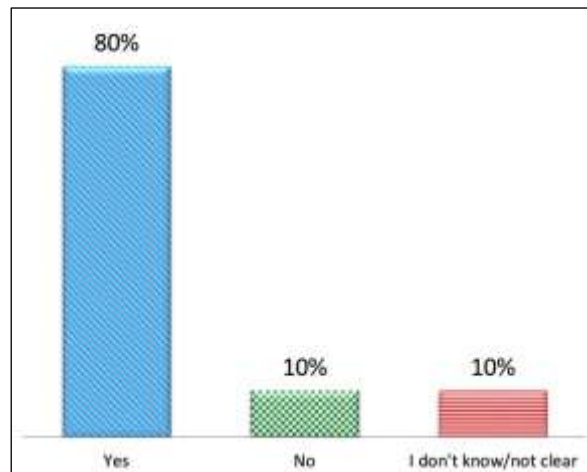


Figure 6: Did you have opportunities to improve the knowledge and skills you gained through the activities of this project (e.g., workshops and seminars) after the project's completion and up until the ex-post evaluation? (n=50)

Regarding Indicator 3), three training courses were conducted every year until the completion of this project: “Measures against Bank Erosion,” “Community Disaster Management,” and “Flood Simulations and Disaster Management Planning (Integrated Flood Management).” It was confirmed through interviews that, in this project, training participants had learned practical methods of promoting community-based disaster management, gained knowledge and skills regarding low-cost bank erosion measures using local materials, and acquired technologies needed to develop integrated flood management plans.²¹ On the other hand, while training costs were fully borne by this project for the second year, the third year's training costs were partially borne by DARD of Hue and Quang Nam Provinces. The initial plan was that MARD would provide budgets for such trainings, or at least that MARD would have allocated such budgets; however, at the time of the terminal evaluation and the project's completion, there was no prospect of MARD bearing training costs as such. Thus, it can be concluded that this indicator has been moderately achieved.

Based on the levels of achievement for Indicators 1)–3), it is considered that systems for managing water-related disasters, particularly those of communities, have been generally strengthened. Therefore, it is concluded that the project has achieved its purpose.

²¹ In addition, MARD commented that in addition to these technologies and knowledge, they developed capacities to draft policy documents, such as nation-wide CRDRM manuals and decrees about measures against bank erosion (an order from the Prime Minister's Office, No. 01/2011, a disaster management and prevention law) through developing manuals and guidelines.

3.2.2 Impact

3.2.2.1 Achievement of Overall Goal

The overall goal of this project was: “Measures against water-related disasters, adapted to the exacerbating effects of global climate change, are strengthened in central Vietnam.” In order to strengthen responses to water-related disasters, it was deemed necessary to strengthen the systems for managing water-related disaster, particularly those of communities, and thus, it was planned that hazard maps that took climate change into consideration and water management plans would be developed, and disaster management divisions would be established in central Vietnam. As shown in Table 3, four indicators were set before the commencement of this project, with the view toward measuring the extent to which the project’s overall goal was achieved: the existence of hazard maps; the existence of plans to manage water-related disasters; the existence of disaster management divisions; and activities to promote community-based disaster management. It can be confirmed that these indicators were generally achieved²². Thus, it can be concluded that the overall goal has been achieved.

Table 3: Achievement of Overall Goal

Overall Goal	Indicator	Actual
Measures against water-related disasters, adapted to the exacerbating effects of global climate change, are strengthened in central Vietnam.	Indicator 1) Existence of flood hazard maps, taking the effects of climate change into consideration, in central Vietnam	Provinces in central Vietnam (17 provinces in total) develop and/or renew hazard maps.
	Indicator 2) Existence of provincial DMPs for water-related disasters in central provinces	All provinces in central Vietnam develop/renew Flood and Storm Control Plans (hereafter referred to as “FSCP”).
	Indicator 3) Existence of specialized DMDs in the government of the central provinces	Provincial Committees for Flood and Storm Control (hereafter referred to as “PCFSC”) exist in all provinces in central Vietnam. In principle, a DMD has been established with the approval of either DARD or the People’s Committee of each province and is commissioned to provide technical advice to PCFSC. At the time of the ex-post evaluation, a DMD had not been established in all provinces of central Vietnam (17 provinces in total) ²³ ; however, MARD planned to guide DARD and the People’s Committee in each province to establish a DMD or a team equivalent to a DMD.
	Indicator 4) Existence of activities led by provincial governments for the promotion of CCDM in the	The government of Vietnam decided in 2009 that the “Strengthening Community Disaster Risk Management Project” should be implemented nationwide (Vietnamese decree No. 1002). In

²² As explained in footnote 15 and 16, it is confirmed that there are examples about the community members understanding location of evacuation shelters and evacuation routes, and the prompt action are taken by them.

²³ MARD could not provide clear indication as to how many DMDs have been established in the central Vietnam.

	central provinces	response to this decision, provincial People's Committees have prepared community-based disaster management plans until 2020 and are carrying out related activities.
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Source: Document provided by JICA (terminal evaluation report, etc.); the questionnaire and interviews conducted during the ex-post evaluation.

Regarding Indicator 1), it was confirmed through interviews with MARD during the ex-post evaluation that provinces in central Vietnam (17 provinces in total) had developed/renewed hazard maps. The knowledge gained through case studies of the target provinces in this project (Phase I) has been accumulated and expanded to 17 provinces, and was utilized in the succeeding project (Phase II). Thus, it can be said that this indicator has been achieved.

With respect to Indicator 2), the “Law on Natural Disaster Prevention and Control” (No. 33/2013/QH13), approved by the central government in 2013 after the completion of this project, mandates all provinces in the country to develop water-management plans. This demonstrates that the knowledge accumulated through the case studies of the provinces targeted by this project was utilized to formulate this law. It also indicates that the awareness of the central government about natural disasters improved as a result of the implementation of this project, which was utilized for the formulation of this law. Therefore, it can be said that this indicator has been achieved.

Concerning Indicator 3), PCFSCs exist not only in central Vietnam but also in all provinces of Vietnam. In principle, DMD, whose establishment is approved by the DARD or the People's Committee of each province, is mandated to provide technical advice to PCFSC. At the time of the ex-post evaluation, DMD did not exist in all provinces of central Vietnam. However, it was confirmed through interviews that MARD planned to guide DARD and the People's Committees at the provincial level in the establishment of DMD or designate a team equivalent to a DMD through the Phase II project. As for the three provinces targeted by this project (Phase I), in accordance with Circulation 14, issued by MARD, a DMD was established in Hue Province during project implementation, while a DMD was set up before the commencement of this project in Quang Nam Province. On the other hand, it was confirmed that the team is called DMC²⁴ in Quang Ngai Province, and that this was established during the implementation of this project. Thus, it can be said that this indicator has generally been achieved.

With respect to Indicator 4), the three target provinces gained knowledge about community-based disaster management through the project activities. It can be concluded that the government of Vietnam is utilizing this accumulated knowledge for implementing the above-mentioned nation-wide project. More specifically, it is thought that this project (Phase I) established a foundation of community-based disaster management (improved capacities among

²⁴ This stands for “Center for Natural Disaster Management and Mitigation.” It has the same function as a DMD.

the relevant central government offices) and that knowledge of community-based disaster management was accumulated through the case studies in the three target provinces. Additionally, these achievements became the foundation for the expanded activities through the succeeding project, Phase II. It was confirmed through interviews with those engaged in the Phase II project that the knowledge accumulated during the Phase I project is contributing to information sharing among stakeholders and to the smooth implementation of the Phase II project, in addition to providing various benefits in terms of procedures.

MARD is holding step-by-step workshops (TOT) for disaster management focal persons from each province, with the aim of improving the knowledge and capacities of community-based disaster management, under the “Strengthening Community Disaster Risk Management Project.” MARD has planned to train 25 CBDRM trainers at the national level and 25 provincial-level trainers in each province, training a total of 1,575 people (25 people x 63 provinces) by the end of 2015. At the time of the ex-post evaluation, it was confirmed through questionnaires and interviews that 25 national-level trainers had been trained, and 1,016 people had received training at the province level. Additionally, the Vietnamese government issued a decree (Vietnamese decree No. 1002) that mandated nationwide implementation of the “Strengthening Community Disaster Risk Management Project” in 2009.²⁵ In response, the People’s Committee of each province developed a community-based disaster management plan with the target year of 2020 and is now carrying out related activities. In relation to this project, MARD has commenced activities to promote community-based disaster management, targeting provinces nationwide after the completion of this project. According to MARD, these activities are built upon the knowledge accumulated through this project. Considering that community-based disaster management activities of the provincial government are promoted, it can thus be said that this indicator has been achieved.

As supplementary information, from 2010 to 2014, MARD was allocated approximately 120,000 USD per year from the central government for TOT for the provinces. On the other hand, MARD’s TOT plan will end in 2015, and there is a possibility that the budgets for these trainings will need to be secured in the future. Although the budget requested for 2015 was approved in 2014, it was not disbursed because the central government faced budget constraints after the budget’s approval. As will be later stipulated in “3.4.4 Financial Aspects of the Implementing Agency for the Sustainability of Project Effects,” MARD was requesting TOT budgets (2016 budgets) from the central government at the time of the ex-post evaluation, given

²⁵ With regard to the decree, it is thought that this project established a foundation of community-based disaster management (improved capacities among the relevant central government offices) and that knowledge of community-based disaster management was accumulated through the case studies in the three target provinces. The government began implementing nationwide activities after building foundations for disaster management in Vietnam through this project; thus, it can be said that this project has had a big effect on the issuance of the decree.

the importance of TOT.²⁶

In light of the above, the project has achieved its overall goal.

3.2.2.2 Other Impacts

3.2.2.2.1 Impacts on the Natural Environment

It has been confirmed through questionnaires and interviews with those involved in this project that there was no negative impact on the natural environment in or around the pilot sites.

3.2.2.2.2 Other Positive and Negative Impacts

It has been confirmed through questionnaires, interviews with those involved in this project, and site visits that there was no resettlement or land acquisition in the pilot sites of this project.

In light of the above, it can be concluded that the project purpose, “community-centered disaster management (CCDM) systems are strengthened in the project areas,” has been achieved. With regard to the overall goal of this project, each indicator was achieved, and it is observed that preparedness for water-related disaster risks has been strengthened. Therefore, the effectiveness and the impact of the project are high.



Photo 2: Hazard map posted inside one evaluation shelter (An Xuan village in Hue Province)



Photo 3: Poster for community-based disaster management inside DARD in Quang Ngai Province

²⁶ At the time of the ex-post evaluation, the DMC within MARD played a main role in conducting CBDRM training, while the General Department of Water Resources within MARD led the trainings on “Bank Erosion Measures” and “Integrated Flood Management Plans.” The General Department of Water Resources incorporates the essence of “Bank Erosion Measures” and “Integrated Flood Management Plans” into many other training courses that they organize. (However, information was not available concerning the exact number of training courses or sessions completed.)

3.3 Efficiency (Rating: ②)

3.3.1 Inputs

Inputs	Plan	Actual
(1) Experts	10 fields (The number of experts and MMs were not specified.)	14 fields, 16 people (84.5 MM)
(2) Trainees received	3–4 people annually	32 people
(3) Equipment	Equipment related to early warning and evacuation, equipment for training, office equipment, and other necessary equipment	PC, laptops, flood management simulation software, plotters, printers, projectors, fax machines, GIS software, etc. were provided to Hue and Quang Nam Provinces.
(4) (Others)	A part of the local costs of strengthening off-site projects	Local contract costs: 238,183 USD (approx. 19 million yen) Local direct cost: 272,000 USD (approx. 21 million yen)
Japanese Side: Total Project Cost	465 million yen	482 million yen
Vietnamese Side: Operational Expenses	① Counterpart personnel ② Land and facilities ③ Local costs (amount was not specified)	① 31 people in total ② Two project offices, two pilot sites for bank erosion measures, and eight evacuation sites were provided free of charge by communes ③ Salaries for counterpart staff, communication costs, and utilities were borne by the Vietnamese side. The total local operational cost borne by the target provinces from the commencement of this project and through August 2011 was 429 million VND (approx. 1.5 million yen) by Hue Province, 40 million VND (approx. 140,000 yen) by Quang Nam Province, and 70 million VND (approx. 250,000 yen) by Quang Ngai Province.

Source: Document provided by JICA (Terminal Evaluation Report, etc.), questionnaires and interviews conducted during the ex-post evaluation.

3.3.1.1 Elements of Inputs

In interviews, the counterpart personnel commented, “The expertise and MM of Japanese

experts were appropriate.” It was confirmed that the experts were well received because they communicated well with community members and carried out their activities at the grassroots level.

With regard to the training in Japan, counterparts and training participants commented in interviews, “The training was based on Japan’s actual experience with disasters and was practical. We can use what we learned from the training in Vietnam. It was extremely useful.”

Concerning the equipment provided by this project, counterparts commented in interviews, “The disaster management equipment distributed to communities catered to the needs of local communities and could be used immediately; thus, they were highly useful in their disaster management activities.”

In light of the above, it can be concluded that the inputs of this project were appropriate.

3.3.1.2 Project Cost

The planned project cost was 465 million yen. The actual project cost was 482 million yen, which was higher than planned (104% of the plan). It is unclear why the actual project cost exceeded the plan.

3.3.1.3 Period of Cooperation

The project period was 36 months (three years), from March 2009 to February 2012, which was as planned.

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

3.4 Sustainability (Rating: ③)

This project aimed to strengthen systems for water-related disaster management, particularly those of communities. In this section, the policy, institutional, technical, and financial aspects necessary to sustain the strengthened disaster management systems²⁷ will be examined.

3.4.1 Related Policy and Institutional Aspects for the Sustainability of Project Effects

The government of Vietnam developed the “National Strategy for Natural Disaster Prevention, Response, and Mitigation” in 2007 with a target year of 2020. It was confirmed that this strategy had continued to be in effect up to now, at the time of the ex-post evaluation. In addition, in Vietnam, community-based disaster management trainers are being trained at MARD and in each province, in accordance with the “Strengthening Community Disaster Risk

²⁷ Here, this refers to a system for managing water-related disasters.

Management Project,” by order of Prime Minister in 2009 (No. 1002). Institutionally, the Vietnamese government declared the “Law on Natural Disaster Prevention and Control” in June 2013, which demonstrates that disaster management continues to be a priority. This law stipulates the application of the disaster management concept to various development plans, such as national socioeconomic plans, the utilization of science for disaster management measures, approaches combining structural measures (hardware) and non-structural measures (software), adaptation to climate change, and the roles of local government in accordance with disaster levels. Thus, it can be concluded that the policy needed to sustain the disaster management systems strengthened by this project was in place at the time of the ex-post evaluation.

3.4.2 Organizational Aspects of the Implementing Agency for the Sustainability of Project Effects

In Vietnam, MARD is in charge of disaster management projects. As illustrated in Figure 7, the Disaster Management Center (hereafter referred to as “DMC”) within MARD plays a role, as central government, in strengthening the disaster management systems of provincial governments. Thanks to the strong leadership of the center head, the DMC continues to grow in terms of number of staff and volume of responsibilities. In each province, the People’s Committee and DARD play key roles in promoting disaster management projects. The DMC was established in 2010 under the General Department of Water Resources within MARD. Initially there were 13 staff, but at the time of the ex-post evaluation (as of April 2015), the number of staff had increased to 28, expanding at a stable pace.²⁸ Through questionnaires and interviews conducted during the ex-post evaluation, it was confirmed that there was no particular problem with the decision-making processes and the ways in which duties were being carried out and that activities were being implemented smoothly.²⁹ With regard to the disaster management systems of the People’s Committees and DARD at the province level, there were no major problems with the ways in which tasks were being carried out. They were constantly communicating and sharing information with MARD, and they have a sound system for coordination.³⁰ Therefore, it can be concluded that there were no particular problems with the institutional aspects of the counterpart at the time of the ex-post evaluation; thus, the systems

²⁸ According to the DMC, there is a plan to add 10 more staff in the future, as responsibilities continue to grow. Interviews with the DMC confirmed that no additional staff will be needed to sustain the project’s effects.

²⁹ Out of the 28 total staff, 13 are well experienced (with more than 10 years of experience in disaster management) and 15 are relatively inexperienced (fewer than five years of experience). It was confirmed through interviews during the ex-post evaluation that the DMC promotes knowledge and technology transfer from the experienced staff to inexperienced staff through regular meetings.

³⁰ Information about the number of staff members and the organizational structures of the three target provinces could not be obtained. Concerning community-based disaster management, the People’s Committees at the provincial level do the promotions, while staff members who developed their knowledge and skills through this project play key roles in carrying out related activities.

needed to sustain the disaster management systems that have been strengthened through this project are in place.

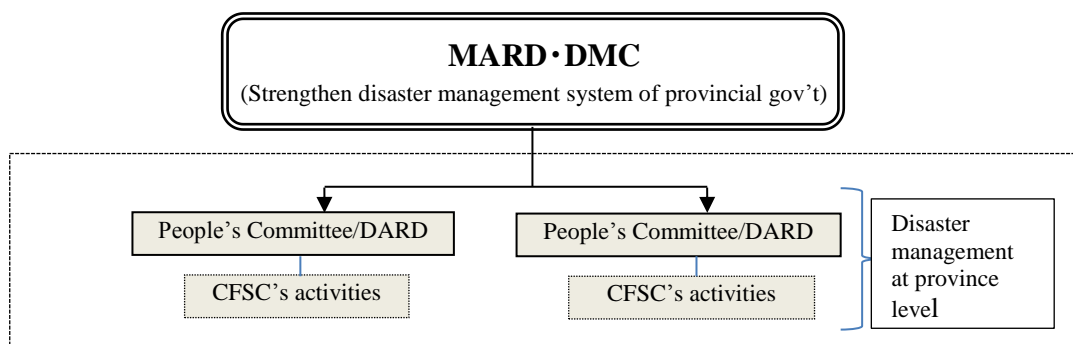


Figure 7: Organizational Structure of This Project (MARD, DMC and People's Committees / DARD)

3.4.3 Technical Aspects of the Implementing Agency for the Sustainability of Project Effects

At the time of the ex-post evaluation, MARD and DARD continued to maintain their knowledge and technologies gained through this project by attending trainings conducted after the project's completion. MARD conducts TOT on community-based disaster management for provincial government focal points, thereby renewing their knowledge.³¹ In the three provinces targeted by this project, the counterpart staff engaged in this project take leadership in transferring technology to other staff. With regard to disaster management at the community level, it was confirmed during the ex-post evaluation that the counterparts at the provincial level were continuing to provide assistance to districts and communes. Thus, it is thought that the knowledge and capacities necessary for continuing the activities of this project are being provided.³² Therefore, there was no problem with the technical aspects of the counterparts at the time of the ex-post evaluation, and thus, it can be concluded that the technologies are in place to sustain the disaster management systems strengthened by this project.

3.4.4 Financial Aspects of the Implementing Agency for the Sustainability of Project Effects

As described above, MARD had been receiving approximately 120,000 USD every year from the central government for community-based disaster management (TOT, manual development, etc.) from 2010 to 2014. In other words, MARD had continued to secure the necessary budgets for community-based disaster management trainings at the time of the ex-post evaluation. Table

³¹ Besides, the DMC within MARD gives on-the-job training to new staff in the areas of foreign language, techniques, and report writing. In addition, it was confirmed through interviews that the DMC holds all staff meetings weekly, where experienced staff transfer their knowledge and technologies to new staff in the form of on-the-job training. Furthermore, through site visits during the ex-post evaluation, it was confirmed that the equipment provided is properly maintained and that there is no particular problem with procuring spare parts. There is no demand for renewing equipment in the near future.

³² For example, disaster management training is given to communes in the three target provinces.

4 shows the DMC’s budgets for its activities, while Table 5 shows the budgets allocated for CBDRM training. These two tables demonstrate that the budgets had continued to be allocated after the completion of this project and up through the ex-post evaluation. While the budgets seem to have been decreasing since 2013, the allocated amounts reflect the actual needs in terms of the tasks and training that needed to be carried out. MARD considers the essential budgets to have been allocated. Considering that the budgets are not actually affecting the disaster management activities and training, it can be concluded that there is no particular problem with the financial aspects required for sustaining the disaster management systems strengthened by this project.

While MARD’s TOT plans for provinces are expected to end in 2015, MARD is fully aware of the importance of further TOT. At the time of the ex-post evaluation (as of April 2015), MARD had already requested the necessary TOT budgets for 2016 and beyond from the central government and was waiting for the result. According to MARD, the decision on the budget allocation would be made in Fall 2015.

Table 4: Budgets Allocated to DMC

(Unit: million VND)

	2011	2012	2013	2014	2015
Budgets	1,341	3,453	9,386	5,467	5,642

Source: MARD

Remark: 100 million VND = approx. 5,000 Japanese yen (as of October 2014)

Table 5: Budgets Allocated for CBDRM Training

(Unit: million VND)

	2011	2012	2013	2014
Budgets	5,000	6,703	2,800	2,500

Source: MARD

Remark: 100 million VND = approx. 5,000 Japanese yen (as of October 2014)

No major problems have been observed in the policy background or in the organizational, technical, and financial aspects of the implementing agency. Therefore, the sustainability of the project effects is high.

4. Conclusion, Lessons Learned, and Recommendations

4.1 Conclusion

This project aimed to strengthen community-centered water-related disaster management systems, targeting the Hue, Quang Nam and Quang Ngai Provinces, located in central Vietnam. This project is consistent with the National Strategy for Natural Disaster Prevention, Response, and Mitigation (2007–2020), which places importance on community-based disaster management and responds to the need to strengthen disaster management systems in Vietnam,

as the country faces multiple water-related disasters. Thus, this project is in line with the development policy and development needs. It is also consistent with the assistance policy of Japan, represented by the “Initiative for Disaster Reduction through ODA.” Therefore, the relevance of the project is high. The outputs of this project were achieved in each above-mentioned target province, and the water-related disaster management systems of the communities were strengthened; thus, the effectiveness and impact are also high. While the project period was as per the initial plan, the project cost slightly exceeded the initial plan; thus, the efficiency is fair. This project has remained consistent with the development policy and needs of Vietnam even after the completion of the cooperation. Additionally, almost all staff members who gained knowledge and developed abilities in the area of disaster management through this project have remained on duty and are maintaining their technologies and abilities by attending training after the completion of this project. Furthermore, the central government allocates sufficient budget to MARD and for various disaster management measures. No major problems have been observed in the policy background or in the organizational, technical, and financial aspects of the implementing agency. Therefore, the sustainability of the project’s effects is high.

In light of the above, this project is evaluated to be highly satisfactory.

4.2 Recommendations

4.2.1 Recommendations to the Implementing Agency

As discussed in “3.4.4 Financial Aspects of the Implementing Agency for the Sustainability of Project Effects,” it is estimated that MARD’s TOT plans for the provinces will be completed by the end of 2015. MARD places importance on the effects and necessity of TOT and is requesting the necessary budget (the fiscal year 2016’s budget) from the central government at the time of the ex-post evaluation (as of April 2015). It is therefore recommended that the central government acknowledge that TOT is effective in strengthening the disaster management capacities of the local government and that it allocate the necessary budgets to MARD, while it is recommended that MARD continue its efforts to strengthen disaster management capacities.

4.2.2 Recommendations to JICA

None.

4.3 Lessons Learned

(Importance of practical and useful technology transfers)

The counterparts of this project demonstrated high levels of satisfaction with the practical

training and workshops that utilized actual sites. It was also commented that the training itself was practical and useful. During the project implementation, workshops were conducted on “Integrated Flood Management Plans” “Community-based Disaster Management” and “Bank Erosion Measures” and many counterparts from the three target provinces and other relevant professionals from central Vietnam attended these trainings. Since the training, they have been formulating integrated disaster management plans, developing and renewing hazard maps, and carrying out community-level disaster management. Thus, it can be said that they have been utilizing the knowledge and technologies they acquired through the workshops, thereby directly contributing to the realization of timely disaster responses. Therefore, in similar future projects, it is thought useful to plan and implement practical training/workshops such as “Integrated Flood Management Plans,” “Community-based Disaster Management,” and “Bank Erosion Measures,” with a view toward realizing concrete technology transfer, thereby motivating counterparts and sustaining project effects.