

Republic of the Philippines

FY2020 Ex-Post Evaluation of Technical Cooperation for Development Planning

“The Project on Rehabilitation and Recovery from Typhoon Yolanda”

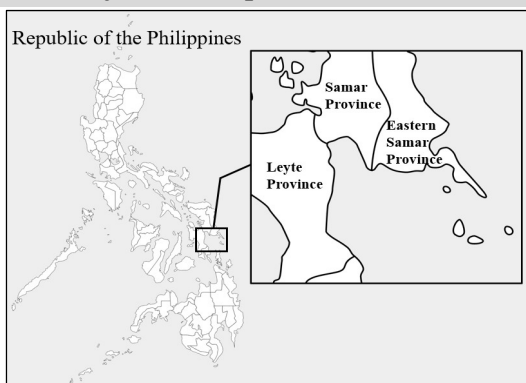
External Evaluator: Akiko Shimizu, Value Frontier Co., Ltd.

0. Summary

This project was implemented in the target areas in the provinces of Leyte, Samar, and Eastern Samar affected by Typhoon Yolanda, with the purpose of advancing recovery and reconstruction by (i) promoting the development of disaster recovery and reconstruction plans, (ii) formulating recovery and reconstruction projects, and (iii) implementing Quick Impact Projects (QIPs), thereby contributing to the reconstruction in the target areas. The objective of the project was highly consistent with the policies of the government of the Philippines and the needs of the affected areas, as well as with Japan’s policies of Official Development Assistance (ODA). Therefore, the relevance of the project is high. With regard to effectiveness, the administrative capacity of the officials in local government units (LGUs) was strengthened through the assistance in revising the Comprehensive Land Use Plans (CLUPs), which serve as the basis for reconstruction planning and urban development, and in developing evacuation plans, and through the activities of QIPs. In addition, through the implementation of QIPs, the rebuilding of disaster-resilient facilities and means of livelihood were confirmed. Regarding its impacts, the continuous use of skills and knowledge gained from the CLUP revision work and the use of disaster evacuation plans were confirmed in three LGUs (Tacloban City, Palo, and Tanauan Municipalities), where the project prioritized assistance. Moreover, it was confirmed that public services were continuously provided in the facilities rebuilt under QIPs, and some livelihood activities continued, both of which contributed to the reconstruction of the target areas. Therefore, effectiveness and impacts of the project are high. Efficiency of the project is high, as it is considered that both the project cost and project period are commensurate with the produced outputs. In terms of operation and maintenance to sustain the project effects, although there is a financial issue in the Tanauan LGU for the CLUP revision, no major problems were observed in the policy background, institutional/organizational and technical aspects, and status of operation and maintenance. Therefore, sustainability of the project effects is high.

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

1. Project Description



Project Locations



Elementary school reconstructed under the QIP

1.1 Background

Typhoon Yolanda, which hit the Philippines on November 8, 2013, caused extensive damage to 36 provinces. In response to this situation, JICA dispatched an expert team for international emergency relief to the Philippines on November 26, 2013 to assess the need for recovery and reconstruction assistance and to gather information to identify specific matters requiring urgent responses. Consequently, it was confirmed that the three provinces of Leyte, Samar, and Eastern Samar along the coast of the Leyte Gulf, where the typhoon reached land with its full force, were the most severely affected areas by storm surges with catastrophic devastation, including damage to bridges and roads, malfunction of airports and medical facilities, and beached large ships. Under these circumstances, the project was formulated to provide assistance oriented toward Build-Back-Better (BBB), not only for the recovery and reconstruction of infrastructure in the target areas, but also for the reconstruction of disaster-resilient communities and societies.

One characteristic of the project was that it required rapid and flexible responses in terms of emergency disaster assistance. For this reason, the “Fast-Track System” to speed up and simplify the procedures for implementing the emergency project was applied, and the detailed needs of the sites were identified during the project implementation. Concrete project activities were planned according to the ever-changing situation on the ground. Another noteworthy feature of the project was the integration of the experiences and lessons learned from the Great East Japan Earthquake and the use of Japanese techniques in project activities.

1.2 Project Outline

Because the project is categorized as Technical Cooperation for Development Planning, a project design matrix (PDM) was not prepared at the time of project planning. As such, the external evaluator organized the project in the form of a PDM (see Attachment 1) based on

an ex-ante project evaluation report developed in December 2015 and interviews with project stakeholders at the time of ex-post evaluation.

Overall Goal	Target areas are reconstructed. ¹	
Project Purpose	Recovery and reconstruction ² in the target areas advance.	
Outputs	Output 1	Development of disaster recovery and reconstruction plans is promoted.
	Output 2	Recovery and reconstruction projects are formulated.
	Output 3	QIPs are implemented.
Total cost (Japanese Side)	1,881 million yen	
Period of Cooperation	February 2014 – January 2017 (Extended period ³ : April 2016 – January 2017)	
Target Area	18 LGUs in the provinces of Leyte, Samar, and Eastern Samar along the coast of the Leyte Gulf. [Leyte Province] Tacloban, Palo, Tanauan, Tolosa, Dulag, Mayorga, MacArthur, Javier, and Abuyog [Samar Province] Basey and Marabut [Eastern Samar Province] Lawaan, Balangiga, Giporlos, Quinapondan, Salcedo, Mercedes, and Guiuan	
Implementing Agency	Department of Finance (DOF)	
Other Relevant Agencies/ Organizations	National Economic Development Authority (NEDA), Department of Public Works and Highways (DPWH), Department of the Interior and Local Government (DILG), and 18 LGUs of the project target areas	
Consultants in Japan	Oriental Consultants Global Co., Ltd., CTI Engineering International Co., Ltd., Pacific Consultants Co., Ltd., Yachiyo Engineering Co., Ltd., and Pasco Corporation	
Related Projects	[Technical Cooperation] < Technical Cooperation Project > -Disaster Risk Reduction and Management Capacity Enhancement Project (2012–2015) -Disaster Risk Reduction and Management Capacity Enhancement Project Phase 2 (2019–2024) <JICA Partnership Program > -Development of mariculture and processed products using Oku-Matsushima techniques in typhoon Yolanda affected areas (2016–2019) -Disaster prevention community development project for reconstruction and sustainability of villages after Typhoon Yolanda (2017–2020) <Private Sector Partnership Program > -Verification Survey with the Private Sector for Disseminating Japanese Technologies for Typhoon-Resistant Fish Farming Cage with the Submersible Function in the Typhoon Stricken Areas (2015–2019) <Follow-up Cooperation >	

¹ As the project is the Technical Cooperation for Development Planning, the project purpose set in the “Project Objective” in the ex-ante evaluation report is regarded as overall goal in the ex-post evaluation.

² In accordance with the Philippine policy, the period of recovery and reconstruction is divided into four phases: “emergency response and early recovery” (about six months after the disaster), “short term” (up to three years after the disaster), “medium term” (from three to six years after the disaster), and “long term” (from six to eight years after the disaster). At the time of project completion, it was during the transition from the “short term” to “medium term” phase.

³ In the Record of Discussions (R/D) signed in March 2014, the cooperation period was set from February 2014 to July 2015 (18 months), but the R/D was amended in December 2014 to change the cooperation period to that from February 2014 to March 2016 (26 months).

	-Consultancy Services for following up Quick Impact Project on Rehabilitation and Recovery from Typhoon Yolanda (2019) [ODA Loan] Post-Disaster Standby Loan (2014) [Grant Aid] The Project for Improvement of the Meteorological Radar System (2009) The Project for Improvement of Equipment for Disaster Risk Management (2013) The Programme for Rehabilitation and Recovery from Typhoon Yolanda (2014)
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2. Outline of the Evaluation Study

2.1 External Evaluator

Akiko Shimizu, Value Frontier Co., Ltd.

2.2 Duration of Evaluation Study

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

Duration of the Study: November 2020 – February 2022

Duration of the Field Study: Field study was cancelled due to the spread of the coronavirus disease 2019 (COVID-19).

2.3 Constraints during the Evaluation Study

Since the external evaluator could not travel to the Philippines due to the spread of COVID-19, a local consultant collected the relevant information under the remote instruction and supervision by the external evaluator. Furthermore, due to the local travel restrictions caused by the spread of COVID-19, it was difficult for the local consultant to travel, even in the country; thus, a survey to confirm the continuous status of QIPs was conducted by local assistants living in the target areas. Some information collection (QIP-6, QIP-11, QIP-12, and QIP-14) was conducted by telephone interviews instead of field visits due to restrictions.

3. Results of the Evaluation (Overall Rating: A⁴)

3.1 Relevance (Rating: ③⁵)

3.1.1 Consistency with the Development Plan of the Philippines

During project planning, the *Philippine Development Plan 2011–2016* (PDP) identified “disaster risk reduction” as a key cross-sectoral issue and promoted the involvement of local governments and communities in disaster risk reduction. Moreover, the *National Disaster Risk Reduction and Management Plan 2011–2028* (NDRRMP) aimed to restore and improve

⁴ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

⁵ ③: High, ②: Fair, ①: Low

facilities, livelihoods, living conditions, and organizational capacities of affected communities, and to reduce disaster risks in accordance with the BBB principle. Furthermore, in response to the disaster caused by Typhoon Yolanda, the government of the Philippines formulated the *Recovery Assistance for Yolanda* and promulgated the basic policy of building disaster-resilient communities by rehabilitating and reconstructing infrastructure and public services, including recovering livelihoods, based on the BBB.

At the project completion, the *PDP 2017–2022*, formulated in 2017, indicated the need for long-term investments in disaster risk management. It also indicated that hazard maps were effective in identifying disaster risks and mitigation measures to minimize the negative impacts of disasters. In addition, *NDRRMP 2011–2028* remained valid during project completion.

3.1.2 Consistency with the Development Needs of the Philippines

During project planning, Typhoon Yolanda severely damaged major industries, such as coconut palm cultivation and fishing in Eastern Visayas (Region VIII), especially in the provinces of Leyte, Samar, and Eastern Samar along the Leyte Gulf. Of the 52 million coconut trees in Region VIII, 34 million were destroyed and the fishing industry lost 10,000 small boats. As many residents in the three provinces lost their means of livelihood, early recovery of livelihoods and economic activities was an urgent issue. Under these circumstances, in response to the request for emergency assistance, the fast-track system was applied, and the project was launched approximately three months after the disaster occurred in November 2013.

At project completion, there was also a high demand for the construction of more resilient facilities and the restoration of livelihoods in areas outside the target areas of this project. Therefore, LGUs and other related organizations that received technical assistance under the project were expected to expand their activities to other areas using their acquired knowledge and experience. In addition, from the perspectives of BBB and disaster risk reduction, the disaster recovery and reconstruction plans of LGUs, including CLUPs and evacuation plans, required periodic revisions to reflect the latest data, which means that the need to formulate disaster recovery and reconstruction plans remained high at project completion.

3.1.3 Consistency with Japan's ODA Policy

The basic policy of the *ODA Charter* (2003) listed “addressing global issues” as a priority and identified disaster response as an issue that required strengthening. The *ODA Medium-Term Policy* (2005) also identified “global issues” as a key issue to address and indicated that natural disaster countermeasures should be addressed. Moreover, in the

Country Assistance Policy for the Republic of Philippines (2012) during project planning, the priority area of “overcoming vulnerabilities and stabilizing bases for human life and production activity,” stated that assistance would be provided for infrastructure development, including soft infrastructure development, to cope with disasters and environmental issues, safety net development in areas such as health and medical care, improvement of agricultural production and productivity, and processing and distribution of agricultural products. Furthermore, the *Japan-Philippines Joint Statement (2011)* indicated the promotion of bilateral cooperation in the field of disaster prevention and management.

In light of the above, the implementation of the project was highly consistent with the policies and development needs of the Philippines at the time of planning and completion of the project, as well as with Japan’s ODA policies at project planning. Therefore, its relevance is high.

3.2 Effectiveness and Impacts⁶ (Rating: ③)

3.2.1 Effectiveness

3.2.1.1 Project Output

The three outputs of the project are – (i) Development of disaster recovery and reconstruction plans is promoted, (ii) Recovery and reconstruction projects are formulated, and (iii) QIPs are implemented – were all achieved, as shown in Table 1.

Under Output 1 (Development of disaster recovery and reconstruction plans is promoted), accurate hazard maps were provided to 18 LGUs. During project implementation, the large-scale typhoon Ruby hit the project areas in December 2014, and the hazard maps were effectively used as they were provided before the typhoon. In addition, the evacuation routes and transportation handling of evacuees were re-examined based on the lessons learned from that event. Furthermore, assistance was provided to three LGUs of Tacloban, Palo, and Tanauan in revising their CLUPs and developing evacuation plans based on the provided hazard maps. Of special note, the project dispatched a government official from Higashi-Matsushima City in Miyagi Prefecture, who was in charge of recovery and reconstruction after the Great East Japan Earthquake, emphasizing the importance of involving various stakeholders, including local residents, in consensus building when revising the CLUPs and developing evacuation plans. This was based on the experience of the Great East Japan Earthquake, which showed that moving forward step by step with the understanding of residents, even though it took time, was ultimately a shortcut to better reconstruction. In the LGUs of Tacloban, Palo, and Tanauan, various stakeholders – such as

⁶ Sub-rating for Effectiveness is to be put with consideration of Impacts.

representatives of the disaster risk reduction committees, barangays⁷, the medical and educational sectors, the fishery industry, the Leyte Samar Historical Society, people with disabilities, elderly people, and women’s groups – participated in the process of CLUP revision and evacuation planning, thus ensuring consensus building based on diverse perspectives. For example, in the coastal area development planning, after a series of consultations involving residents in advance, a plan was formulated to reflect the opinions of the residents, taking into account for the impact on the fishing industry and the resettlement of local residents. In addition, in response to a request from the government of the Philippines, the project provided assistance in formulating a basic design for road heightening and tide embankment construction as an additional output to flexibly respond to local needs soon after the devastating disaster. The tide embankment was designed not only to be a disaster prevention facility, but also to be used for tourism and to improve livelihoods based on discussions with local residents, considering the historical value of the MacArthur Landing Memorial National Park as a cultural heritage and the conservation of the mangrove ecosystem.⁸

Regarding Output 2 (Recovery and reconstruction projects are formulated), under the concept of BBB, various sectoral sub-projects of the Sector Grant⁹ and a total of 22 QIPs were formulated based on local needs. Regarding Output 3 (QIPs are implemented), 15 QIPs were implemented in the first year of the project. In the second year, five of the 15 QIPs were extended, and seven additional QIPs were implemented. A list of the 22 QIPs is presented in Table 2.

Table 1. Achievement status of outputs

Outputs	Activities	Achievements
Output 1: Development of disaster recovery and reconstruction plans is promoted <Achieved>	Provision of Hazmat maps.	<ul style="list-style-type: none"> Based on a scientific analysis, accurate hazard maps were provided to 18 LGUs.
	Conducting revision work of CLUPs that reflect disaster recovery and reconstruction plans and	<ul style="list-style-type: none"> Assistance related to the revision of CLUPs was provided mainly to three LGUs: Tacloban, Palo, and Tanauan. The revision work of the CLUPs was conducted in accordance with the guidelines of the Department of Human Settlements and Urban Development¹⁰ (DHSUD) using the hazard maps provided by the project. In the Palo and Tanauan LGUs, the participatory process of CLUP revision and the formulation of reconstruction plans and municipality

⁷ The smallest administrative unit under cities and municipalities.

⁸ It includes the development of side roads and bicycle paths associated with the construction of the tide embankment, and the development of recreational areas including sports facilities, viewing platforms, and a park (MacArthur Landing Memorial National Park) in areas protected from storm surges by the tide embankment. It also includes the development of a safe walkway that considers the livelihood of fishermen the preservation of mangroves, allowing people to be in touch with nature.

⁹ A type of ODA Grants in which multiple sub-projects are implemented in a flexible manner under a single ODA Grants program to respond quickly and flexibly to ever-changing and diverse needs in the assistance for conflict and disaster recovery and reconstruction.

¹⁰ At that time, it was the Housing and Land Use and Regulatory Board (HLURB), but with the reorganization in 2019, the HLURB was changed to the DHSUD.

	hazard maps.	<p>development plans (Dream Plans), including the construction of a tide embarkment, were promoted by adopting the “Area Management” method, which brings together local stakeholders for discussion.</p> <ul style="list-style-type: none"> • As an additional output, the findings and recommendations obtained from the CLUP revision process were compiled into a handbook for LGU practitioners entitled “Building Safer Cities” and submitted to the DHSUD. The handbook was also distributed to relevant ministries and other local governments through the DHSUD. • As an additional output, as part of the structural measures to protect against storm surge, assistance was provided to develop the basic design for a partial section (13 km) of road heightening and tide embarkment construction in the LGUs of Tacloban, Palo, and Tanauan. 																						
	Development of evacuation plans based on hazard maps and structural measures.	<ul style="list-style-type: none"> • Assistance in developing evacuation plans as part of the non-structural measures was provided mainly to the LGUs of Tacloban, Palo, and Tanauan. • In the Tacloban LGU, a timeline action plan¹¹ was developed using the hazard map and participatory workshops. • In the Palo LGU, when Typhoon Ruby hit during the project implementation, evacuees rushed to the evacuation centers and could not enter the buildings. In response, assistance was later provided to update the data including the capacity of the evacuation centers and to develop an evacuation plan using the hazard map and with residents’ participation. • In the Tanauan LGU, assistance was provided in confirming evacuation procedures using hazard maps and drafting a timeline action plan with residents’ participation. • In the LGUs of Tacloban, Palo, and Tanauan, assistance was provided for the implementation of evacuation drills based on the developed evacuation plans. • As an additional output, the hazard maps of the LGUs of Tacloban, Palo, and Tanauan were updated in the second year of the project. 																						
Output 2: Recovery and reconstruction projects are formulated <Achieved>	Formulation of grant aid projects aimed at building safer cities, rebuilding people’s daily lives, recovering regional economies, and promoting local industries.	<p>Of the sub-projects in the Sector Grant “Programme for Rehabilitation and Recovery from Typhoon Yolanda,” those that were formulated based in the project on the concept of the BBB are listed in the table below.</p> <table border="1"> <thead> <tr> <th>Items</th> <th colspan="2">Contents</th> <th>Completion month/year</th> </tr> </thead> <tbody> <tr> <td>Recovery of disaster-resistant elementary schools</td> <td>Facility Construction</td> <td>Seven elementary schools</td> <td>May 2017</td> </tr> <tr> <td rowspan="3">Recovery of disaster-resilient community healthcare</td> <td>Facility Construction</td> <td>Outpatient building for the Eastern Visayas Regional Medical Center</td> <td>August 2017</td> </tr> <tr> <td>Facility Construction</td> <td>Four health units</td> <td>May 2017</td> </tr> <tr> <td>Equipment Procurement</td> <td>Medical equipment</td> <td>May 2017</td> </tr> <tr> <td>Recovery of electricity</td> <td>Equipment Procurement</td> <td>Power distribution equipment (high-lift work vehicles, pole trucks, etc.)</td> <td>January 2016</td> </tr> </tbody> </table>	Items	Contents		Completion month/year	Recovery of disaster-resistant elementary schools	Facility Construction	Seven elementary schools	May 2017	Recovery of disaster-resilient community healthcare	Facility Construction	Outpatient building for the Eastern Visayas Regional Medical Center	August 2017	Facility Construction	Four health units	May 2017	Equipment Procurement	Medical equipment	May 2017	Recovery of electricity	Equipment Procurement	Power distribution equipment (high-lift work vehicles, pole trucks, etc.)	January 2016
Items	Contents		Completion month/year																					
Recovery of disaster-resistant elementary schools	Facility Construction	Seven elementary schools	May 2017																					
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	Equipment Procurement	Medical equipment	May 2017																					
Recovery of electricity	Equipment Procurement	Power distribution equipment (high-lift work vehicles, pole trucks, etc.)	January 2016																					

¹¹ The purpose is to show action plans to implement before and after a disaster occurs, and to make concrete arrangements in advance on “who, when, how, and what to do,” so that related parties can take prompt and appropriate actions in close coordination in the event of a disaster.

		Recovery of construction machinery	Equipment Procurement	Dump trucks, etc.	October 2015
		Recovery of National Maritime Polytechnic	Equipment Procurement	Fast rescue boats, etc.	June 2016
		Recovery of Guiuan Marine Fisheries Development Center	Equipment Procurement	Sterilization equipment for aquaculture water treatment, etc.	September 2015
		Recovery of Tacloban Airport	Equipment Procurement	Airport equipment (fire trucks, X-ray inspection equipment, etc.)	February 2016
		Recovery of disaster-resistant municipal halls	Facility Construction	Two municipal halls	May 2018
	Formulation of QIPs	A total of 22 QIPs were formulated; 15 QIPs (QIP-1 to 15) in the first year and 7 QIPs (QIP-16 to 22) in the second year of the project.			
Output 3: QIPs are implemented <Achieved>	Implementation of QIPs	In the first year of the project, 15 QIPs (QIP-1 to 15) were implemented almost as planned. In the second year, 5 QIPs (QIP-1, QIP-3, QIP-8, QIP-14, QIP-15) were extended and 7 additional QIPs (QIP-16 to QIP-22) were implemented.			

Source: Materials provided by JICA.

Table 2. List of QIPs

QIP	LGU	Project name
1	Basey	Project of Regenerating Livelihood through Introduction of Disaster Resilient Submersible Fish Cage (Milk Fish Culture)
2	Palo	Project of Recovery of Rural Public Health Service Support System through Reconstruction of Provincial Health Office
3	Tolosa	Project of Regenerating Local Livelihoods through Processing of Agriculture and Fishery Products by Small-Scale Community Groups
4	Balangiga	Project of Training on Disaster Resilient Construction Technologies through Reconstruction of the Balangiga National Agriculture School
5	Dulag	Project of Training on Disaster Resilient Construction Technologies through Reconstruction of the Dulag National High School
6	Salcedo	Project of Reconstruction of Day Care Center for Community Rehabilitation in Salcedo (Vitalization of Peoples' Dialogue)
7	Guiuan	Project of Reconstruction of Day Care Center for Community Rehabilitation in Guiuan (Vitalization of Peoples' Dialogue)
8	Guiuan	Project of Regenerating Livelihood through Introduction of Disaster Resilient Submerged Fish Cage (Lapu-Lapu Culture)
9	Guiuan	Project of Improving Municipal Capacity for Disaster Resilient Construction Management through Reconstruction of Public Market in Guiuan
10	Dulag	Project of Improving Municipal Capacity for Disaster Resilient Construction Management through Reconstruction of the Dulag Slaughter House

11	Mercedes	Project of Improving Municipal Capacity for Disaster Resilient Construction Management through Reconstruction of Public Market in Mercedes
12	Mayorga	Project of Improving Municipal Capacity for Disaster Resilient Construction Management through Reconstruction of Public Market in Mayorga
13	Basey, Tolosa, Tanauan ¹²	Project of Promotion of Local Products to Improve Livelihoods for the Survivors of Typhoon Yolanda
14	Mercedes	Project of Regenerating Livelihood through Production of Coco Charcoal Briquette
15	Tanauan	Project of Integrated Culture of Oyster and Milk Fish Improvement for Sustainable Aquaculture and Livelihood
16	Tanauan	Project of Training on Disaster Resilient Construction Technologies through Reconstruction of the Camire Elementary School
17	Balangiga	Project of Training on Disaster Resilient Construction Technologies through Reconstruction of the Balangiga National Agriculture School (Phase 2)
18	Abuyog	Project of Recovery of Rural Health Service Support System through Reconstruction of the Abuyog Rural Health Unit (RHU)
19	Dulag	Project of Recovery of Rural Health Service Support System through Reconstruction of the Dulag RHU
20	Tanauan	Project of Construction of Processing Plant for Integrated Aquaculture and Processing Development in Tanauan
21	Basey	Project of Construction of Processing Plant for Integrated Aquaculture and Processing Development in Basey
22	Dulag	Project of Improving Municipal Capacity for Disaster Resilient Construction Management through Reconstruction of the Dulag Slaughter House (Improvement of Access Road)

Source: Materials provided by JICA.

3.2.1.2 Achievement of Project Purpose

Under the concept of BBB, the project was formulated and implemented based on the three principles of recovery and reconstruction of the Philippine government's strategy (1. building safer cities; 2. rebuilding people's daily lives, and 3. recovery of the regional economy and promotion of industry). Accordingly, in the ex-post evaluation, these three principles were organized as pillars in setting indicators of the project purpose and overall goal (see Table 3 and Attachment 1).

At the project completion, it was confirmed that the administrative capacity of LGU officials to build safer communities improved through the CLUP revision process, evacuation plan development, and QIP implementation (Indicator 1-1). In addition, the capacity of disaster-resilient construction techniques of the Technical Education and Skills Development Authority (TESDA) under the Department of Labor and Employment improved through the Japanese technical transfer (Indicator 1-1). Moreover, through the implementation of QIPs, public facilities directly related to people's livelihoods, such as health, education, and social services, were rebuilt, which led to the rebuilding of people's daily lives (Indicator 2-1). The facilities constructed through the implementation of the QIPs are listed in Table 4. Furthermore, through the activities of QIPs (rebuilding of facilities, provision of equipment, and capacity building training), the economic activities of local

¹² Target areas of QIP-1, -3, and -15

industries such as agriculture and fishery resumed (Indicator 3-1), and people's livelihoods were regenerated (Indicator 3-2).

In light of the above, through the implementation of the project, the recovery and reconstruction of the target areas advanced based on the three principles of the recovery and reconstruction strategy. Therefore, it was concluded that the project achieved its purpose.

Table 3. Achievement of project purpose

Project Purpose: Recovery and reconstruction in the target areas advance		
Three principles	Indicators and achievements	Actual
1. Building safer cities (At the project completion)	1-1: Capacity of government officials for building disaster-resilient communities is improved through the process of disaster recovery and reconstruction planning and the implementation of QIPs. <Achieved>	(1) Capacity building through CLUP revision work and development of evacuation plans Since the amount of work to revise CLUPs required in the DHSUD's CLUP guidelines was considerable, it was difficult for LGUs to revise CLUPs on their own. The project supported mainly the LGUs of Tacloban, Palo, and Tanauan in revising the CLUPs and formulating evacuation plans through workshops attended by various stakeholders. Through these activities, the LGUs learned leadership skills and the importance of strengthening coordination with stakeholders and involving them in consensus building. Therefore, the project contributed to the improvement of the administrative capacity of the LGUs' officials for building disaster-resilient communities. (2) Improving disaster-resistant construction techniques ¹³ through Japanese technical transfer In the implementation of QIP-4, QIP-5, QIP-16, and QIP-17, skilled Japanese builders were invited to provide training in the transfer of earthquake-resistant construction technology to TESDA instructors and graduates (carpenters). As more than 80% of the participants of the training were continuously employed by construction companies, the project contributed to the acquisition of the participants' skills. In addition, the content of the training was compiled into training materials such as manuals and videos, and submitted to TESDA. In 2016, the project was awarded by TESDA for its contribution to TESDA projects.
2. Rebuilding people's daily lives (At the project completion)	2-1: Disaster-resilient facilities are rebuilt through the implementation of QIPs. <Achieved>	Through the implementation of QIPs, disaster-resilient facilities were rebuilt based on the BBB concept (see Table 4).
3. Recovery of the regional economy and promotion of industries (At the project completion)	3-1: Activities of local industries (agriculture, fishery, etc.) resumed through the implementation of QIPs. <Achieved>	(1) In QIP-1, QIP-8, and QIP-15, disaster-resistant aquaculture equipment was provided and aquaculture technical training was conducted, which helped the resumption of aquaculture activities. In QIP-1, QIP-3, and QIP-15, training on the production and sales of processed foods was provided to women's groups, and livelihood activities were started. (2) In QIP-14, the production and sales of coconut charcoal was

¹³ Re-bar, formworks, concrete, welding, truss fabrication, roof installation, and so on.

		introduced. In addition, intercropping of coconut (horticultural crop cultivation) was introduced.
	3-2: People's livelihoods are regenerated through the implementation of QIPs. <Achieved>	(1) In QIP-1, QIP-3, QIP-8, and QIP-15, the means of fishermen's livelihoods were regenerated or newly created through aquaculture activities and sales of processed foods. (2) In QIP-14, the means of farmers' livelihoods were established through the sale of coconut charcoal and horticultural crops. (3) In QIP-13, livelihood activities were strengthened through the assistance in promoting the sales of processed agricultural and fishery products produced in QIP-1, QIP-3, and QIP-15.

Source: Materials provided by JICA.

Table 4. Facilities constructed through the implementation of QIPs

Facilities	QIP	LGU	No. of Facilities
Provincial Health Office	QIP-2	Palo	1
Multi-purpose Livelihood Building	QIP-3	Tolosa	1
National Agricultural School	QIP-4 ¹⁴ , 17 ¹⁵	Balangiga	1
National High School	QIP-5	Dulag	1
Day Care Center	QIP-6	Salsedo	5
Day Care Center	QIP-7	Guiuan	2
Artificial Feed Preparation Facility for Lapu-Lapu Aquaculture	QIP-8	Guiuan	1
Public Market	QIP-9	Guiuan	1
Public Market	QIP-11	Mercedes	1
Public Market	QIP-12	Mayorga	1
Slaughter House	QIP-10	Dulag	1
Elementary School	QIP-16	Tanauan	1
RHU	QIP-18	Abuyog	1
RHU	QIP-19	Dulag	1
Processing Plant	QIP-20	Tanauan	1
Processing Plant	QIP-21	Basey	4

Source: Materials provided by JICA.

3.2.2 Impacts

3.2.2.1 Achievement of Overall Goal

Regarding the achievement of the overall goal, as Table 5 shows, Indicators 1-1, 1-2, and 2-1 were achieved, and Indicators 3-1 and 3-2 were partially achieved. Details of the continuation status of QIPs are shown in Attachment 2.

Table 5. Achievement of overall goal

Overall goal: Target areas are reconstructed.		
Three principles	Indicators and achievements	Actual
1. Building safer cities (Medium and	1-1: CLUPs are utilized. <Achieved>	<ul style="list-style-type: none"> In the Tacloban LGU, the CLUP was referenced during the formulation of various city development plans.¹⁶ In the Palo LGU, as part of the municipal planning process, the CLUP

¹⁴ Food-processing classroom building.

¹⁵ Buildings for Food Technology and Construction workshops.

¹⁶ Includes the construction of bypass roads and other road networks (2015-2019), the Comprehensive Development Plan, the Peace and Order and Public Safety Plan, and the Tourism Development Plan.

long term)		<p>was referenced during the formulation and implementation of the comprehensive development plan and the development plan (Dream Plan) facilitated by the Area Management Committee that was set up with the support of the project.</p> <ul style="list-style-type: none"> In the Tanauan LGU, the skills and experiences gained from the project were utilized to revise the CLUPs, which was in progress at the time of ex-post evaluation. 																																							
	1-2: Evacuation plans are utilized. <Achieved>	<ul style="list-style-type: none"> In the LGUs of Tacloban, Palo, and Tanauan, the evacuation plans developed under the project were utilized during disasters such as Typhoon Urduja in 2017, Typhoon Usman in 2018, and Typhoon Ursula in 2019, which struck after the project completion. The evacuation plan was also used during a flood that occurred during the ex-post evaluation (February 2021). The implementation of evacuation drills was temporarily suspended due to the spread of COVID-19, but before that, they were conducted regularly (about once a quarter). They will resume once COVID-19 is under control. The LGUs are also providing technical assistance to barangays to facilitate the development of evacuation plans. For example, the Tacloban LGU conducts quarterly simulation exercises on the evacuation preparedness in selected barangays, followed by assessment and evaluation, to assist barangays in revising their evacuation plans. 																																							
2. Rebuilding people's daily lives (Medium and long term)	2-1: The provision of public services (health care, education, social services) is resumed and continues in the rebuilt facilities. <Achieved>	<p>Public facilities rebuilt under the QIPs related to facility reconstruction are continuously utilized and public services (health, education, and social services) are continuously provided.</p> <table border="1"> <thead> <tr> <th>QIP</th> <th>Activities</th> <th>Utilization status of facilities</th> </tr> </thead> <tbody> <tr> <td>QIP-2</td> <td>Rebuilding the provincial health office</td> <td>Continuously utilized.</td> </tr> <tr> <td>QIP-4, 17</td> <td>Rebuilding the national agricultural school</td> <td>Continuously utilized.</td> </tr> <tr> <td>QIP-5</td> <td>Rebuilding the national high school</td> <td>Continuously utilized.</td> </tr> <tr> <td>QIP-6</td> <td>Rebuilding day care centers</td> <td>Continuously utilized.</td> </tr> <tr> <td>QIP-7</td> <td>Rebuilding day care centers</td> <td>Continuously utilized.</td> </tr> <tr> <td>QIP-9</td> <td>Rebuilding the public market</td> <td>Continuously utilized.</td> </tr> <tr> <td>QIP-10, 22</td> <td>Rebuilding the slaughter house</td> <td>Continuously utilized.</td> </tr> <tr> <td>QIP-11</td> <td>Rebuilding the public market</td> <td>Continuously utilized.</td> </tr> <tr> <td>QIP-12</td> <td>Rebuilding the public market</td> <td>Continuously utilized.</td> </tr> <tr> <td>QIP-16</td> <td>Rebuilding the elementary school</td> <td>Continuously utilized.</td> </tr> <tr> <td>QIP-18</td> <td>Rebuilding the RHU</td> <td>Continuously utilized.</td> </tr> <tr> <td>QIP-19</td> <td>Rebuilding the RHU</td> <td>Continuously utilized.</td> </tr> </tbody> </table>	QIP	Activities	Utilization status of facilities	QIP-2	Rebuilding the provincial health office	Continuously utilized.	QIP-4, 17	Rebuilding the national agricultural school	Continuously utilized.	QIP-5	Rebuilding the national high school	Continuously utilized.	QIP-6	Rebuilding day care centers	Continuously utilized.	QIP-7	Rebuilding day care centers	Continuously utilized.	QIP-9	Rebuilding the public market	Continuously utilized.	QIP-10, 22	Rebuilding the slaughter house	Continuously utilized.	QIP-11	Rebuilding the public market	Continuously utilized.	QIP-12	Rebuilding the public market	Continuously utilized.	QIP-16	Rebuilding the elementary school	Continuously utilized.	QIP-18	Rebuilding the RHU	Continuously utilized.	QIP-19	Rebuilding the RHU	Continuously utilized.
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3. Recovery of regional economy and promotion of industries (Medium and long term)	3-1: Businesses or livelihood activities resumed by QIPs continue. <Partially achieved>	<p>The table below shows the utilization status of the techniques obtained and facilities and equipment provided under the QIPs for livelihood restoration. The production and sales of processed milkfish (QIP-1 and 21), lapu-lapu aquaculture (QIP-8), and the production and sales of coconut charcoal (QIP-14) were suspended and are not expected to resume.</p> <table border="1"> <thead> <tr> <th>QIP</th> <th>Activities</th> <th>Status of utilization of techniques and equipment</th> </tr> </thead> <tbody> <tr> <td>QIP-1, 21</td> <td>- Milkfish aquaculture - Production and sales of processed milkfish foods</td> <td>[Aquaculture] Partially continued. [Processing] Milkfish processing activities were suspended due to the breakdown of equipment. [Processing facilities] Limited use for making peanut butter and selling rice by women association members.</td> </tr> <tr> <td>QIP-3</td> <td>Production and sales of agricultural and fishery processed foods</td> <td>[Processing] Temporarily suspended due to COVID-19 (to resume once COVID-19 is under control). [Facility] To be used again once COVID-19 is under control.</td> </tr> <tr> <td>QIP-8</td> <td>Lapu-lapu aquaculture</td> <td>[Aquaculture] Suspended as equipment was destroyed by the typhoon.</td> </tr> </tbody> </table>	QIP	Activities	Status of utilization of techniques and equipment	QIP-1, 21	- Milkfish aquaculture - Production and sales of processed milkfish foods	[Aquaculture] Partially continued. [Processing] Milkfish processing activities were suspended due to the breakdown of equipment. [Processing facilities] Limited use for making peanut butter and selling rice by women association members.	QIP-3	Production and sales of agricultural and fishery processed foods	[Processing] Temporarily suspended due to COVID-19 (to resume once COVID-19 is under control). [Facility] To be used again once COVID-19 is under control.	QIP-8	Lapu-lapu aquaculture	[Aquaculture] Suspended as equipment was destroyed by the typhoon.																											
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		QIP-14	- Production and sales of coconut charcoal. - Intercropping (horticultural crops). [Coconut charcoal] Suspended as fallen trees were used up. [Intercropping] Activities continue.
		QIP-15, 20	- Oyster and milkfish integrated aquaculture. - Production and sales of processed oyster and milkfish foods [Aquaculture] Oyster aquaculture has been temporarily suspended due to contamination of seawater caused by ongoing embankment construction by the Philippine government (to resume upon completion of construction). Milkfish aquaculture has been continuing. [Processing] Temporarily suspended due to the spread of COVID-19 (to resume once COVID-19 is under control). [Processing facilities] To be used again after completion of embankment construction and end of COVID-19.
	3-2: Employment is generated by QIPs <Partially achieved>	At the time of ex-post evaluation, employment has been maintained in some continuing aquaculture activities in QIP-1. The livelihood activities in QIP-1 related to the production and sales of processed milkfish were suspended due to the breakdown of equipment. In QIP-3, the production and sales of processed foods were temporarily suspended due to COVID-19 (external factor). In QIP-8, the activities of lapu-lapu aquaculture did not continue because the equipment provided by the project was destroyed by a typhoon. In QIP-14, livelihood activities related to the production and sales of coconut charcoal did not continue because the materials, coconut trees felled by the typhoon, are no longer available, but activities related to the cultivation and sales of horticultural crops introduced as intercrops have continued to generate income. In QIP-15, livelihood activities related to milkfish aquaculture have continued, but oyster aquaculture was temporarily suspended due to embankment construction (external factor). Activities related to the production and sales of processed foods in QIP-15 were temporarily suspended due to COVID-19 (external factor).	

Source: Interviews with relevant organizations and stakeholders of QIPs.

[Utilization status of knowledge and skills obtained through the revision work of the CLUP and development of the evacuation plan]

After project completion, the revised CLUP (2017–2025) in the Tacloban LGU was approved by the City Council and the DHSUD in 2018. According to the Tacloban LGU, the hazard mapping knowledge gained through the project was utilized for its update. In addition, the ability to coordinate with stakeholders gained in the process of developing evacuation plans and timeline action plans were utilized in disaster risk reduction measures. In the Palo LGU, the revised CLUP (2016–2025) was approved by the Municipal Council in 2018. According to the Palo LGU, they have continued to use the area management approach introduced by the project to involve various stakeholders in municipal development planning and disaster risk reduction measures. The Tanauan LGU is planning to revise CLUP 2010–2019, which was approved in 2013, in 2022. According to the Tanauan LGU, it utilized the coordination skills among stakeholders gained through the area management approach and

knowledge of hazard mapping gained by the project in municipal disaster risk reduction measures.

In the project, it was emphasized the importance of a reconstruction plan with the participation of various stakeholders in consensus building based on the experience of the Great East Japan Earthquake. At the time of ex-post evaluation, the three LGUs firmly inherited this point, and it was confirmed that the community was working together on disaster risk reduction measures.

[Utilization status of architectural techniques obtained through the implementation of QIPs]

According to TESDA, welding machines and other equipment used in the QIP-related activities of rebuilding facilities are used daily in practical training. In addition, materials such as the manual “The Technology of Welding, Truss, and Roof” and videos of the training, which were developed under the project, were incorporated into TESDA’s curriculum; thus, those materials were utilized by TESDA schools nationwide at the time of ex-post evaluation.

[Utilization status of facilities constructed, and techniques and equipment obtained through the implementation of QIPs]

In all public facilities rebuilt under the QIPs, it was observed that public services such as education, healthcare, and social services were continuously provided. Among the QIPs that supported the resumption of local industries and the restoration of livelihoods, the activities of the production and sales of processed milkfish products in the Basey LGU (QIP-1 and 21) and lapu-lapu aquaculture in the Guiuan LGU (QIP-8) were suspended and are not expected to resume because of the breakdown of processing equipment and aquaculture equipment, respectively. Therefore, the use of facilities constructed for both activities (processing plants (QIP-21) and artificial feed preparation facility (QIP-8)) is limited. The activities related to the production and sales of coconut charcoal (QIP-14) ended as the purpose of these activities was to generate temporary emergency income by utilizing the coconut trees destroyed by Typhoon Yolanda. The activities in the production and sales of processed agricultural and fishery products (QIP-3) and processed milkfish products (QIP-15 and QIP-20) were temporarily suspended due to COVID-19 but are expected to resume once COVID-19 is over. In addition, the activities of oyster aquaculture (QIP-15) were temporarily suspended due to embankment construction, but are expected to resume after construction ends. As for other activities (milkfish aquaculture (QIP-1 and QIP-15) and intercropping (QIP-14)), equipment provided and techniques obtained under QIPs were continuously used for livelihood activities.

Therefore, it is concluded that the project has achieved its overall goal.

Column: Strengths of Japanese Assistance in Disaster Reconstruction

— Sharing Experiences and Exchanging Opinions through Training Programs in Japan —

In the project, a total of 38 Philippine representatives, including central government officials, LGU officials, and QIP participants, were invited to Higashi-Matsushima City and Ishinomaki City in Miyagi Prefecture through four times of training programs in Japan to visit the areas affected by the Great East Japan Earthquake, share reconstruction measures, and exchange opinions with affected local residents. According to a person involved in the project, since many of the participants of the training programs were disaster victims of Typhoon Yolanda, the mutual sharing of the progress of the reconstruction and the exchange of opinions between the stakeholders affected by the disaster served as an encouragement to both the Japanese government officials and local residents who were working on reconstruction after the Great East Japan Earthquake and the Philippine participants. In addition, it helped create relationships and intercommunications that overcame the language barrier between Japan and the Philippines. For example, in Higashi-Matsushima City, where the reconstruction was underway about four years after the Great East Japan Earthquake, reconstruction projects piled up and the collective resettlement of residents was proceeding through more than 400 meetings a year with the local population. The importance of the consensus-building process involving the local population as well as the challenges in such process were shared. This was a valuable lesson for the Philippine government officials who were also working on similar reconstruction projects.

In this way, the project helped to promote better reconstruction not only through the assistance by professional international development consultants, but also through the sharing of experiences and regional exchanges that could be conveyed only by those who actually experienced such a disaster. The project acted as a bridge for cultural exchanges between local cities in the Philippines and Japan, and it was a unique form of assistance that could only be provided by a country that experienced a similar natural disaster.

3.2.2.2 Other Positive and Negative Impacts

(1) Impact on natural environment and society

The project was classified into “Category B” based on the *JICA Guidelines for Environmental and Social Considerations* (2010). As for the formulation of sub-projects of the Sector Grant, all projects were identified to be waived by the Environmental Impact Assessment (EIA) and obtained a “Certificate of Non-Coverage” in 2014.

As for the construction of facilities supported under the QIPs, the agencies responsible for each facility, such as the LGUs and TESDA, took a role in construction approval and

other procedures, including environmental assessment, and the project took a role in monitoring the coordination with relevant agencies for construction approval and other procedures undertaken by the responsible agencies. According to the Department of Public Works and Highways, TESDA, and the LGUs of Tacloban, Palo, and Tanauan, construction work supported by QIPs included the reconstruction of existing facilities and/or relatively small buildings with no significant environmental impacts; thus, no negative impacts on the natural environment were observed.

Furthermore, the activities in QIP-8 sought to restore the livelihoods of aquaculture farmers through environment-friendly aquaculture operations (restrictions on the capture of natural species and a gradual shift to artificial assorted feed). Environment-friendly activities such as training on aquaculture systems with less burden on the natural environment were conducted.

No resettlement or land acquisition occurred during the implementation of QIPs.

(2) Development effects of utilizing Japanese experience and techniques

As shown in Table 6, Japanese experiences and technologies were utilized in the implementation of QIPs, which improved the project effects.

Table 6. Implementation of QIPs using Japanese experience and techniques

1. Introduction of submersible fish cages with “Gawabari (grid mooring)” techniques in cooperation with a private company.
In the project, based on the information that some Japanese fish farming cages were not damaged by Typhoon Yolanda in other areas, the project requested cooperation from a private Japanese company (NITTO SEIMO CO., LTD.), which holds the manufacturing patent for the cages. In QIP-1 (milkfish aquaculture), submersible fish cages (40 in total) were installed in four barangays. Typhoon-resistant Japanese technology was thus utilized.
2. Introduction of Japanese-style prefabrication based on the experience of Higashi-Matsushima City, which suffered tremendous damage in the Great East Japan Earthquake.
In Higashi-Matsushima City, which suffered from serious damage from the Great East Japan Earthquake, prefabricated building units for community gathering places were donated with support from Germany. These building units were effectively utilized as meeting places where local people discussed issues on recovery and reconstruction. To utilize this experience for early recovery in the areas hit by Typhoon Yolanda, Japanese prefabrication technology, which is easy to procure and construct and can ensure a certain level of rigidity, was introduced in QIP-6 and QIP-7 (rebuilding day care centers), as it was still difficult to procure building materials due to supply shortages. Since it was possible that existing Japanese prefabricated buildings would not be able to withstand Yolanda-class typhoons, the existing prefabricated buildings were modified and the final design was completed after many discussions. At the time of ex-post evaluation, it was confirmed that the facilities in QIP-6 and QIP-7 were operated and maintained without any major problems.
3. Transfer of construction techniques to local workers using techniques of skilled Japanese builders.
In QIP-4, QIP-5, QIP-16, and QIP-17 related to rebuilding facilities, skilled Japanese builders were invited to transfer techniques of Japanese-style earthquake-resistant construction, including roofing and welding, to TESDA instructors and graduates (carpenters), as mentioned above. In addition, videos of the training by the skilled Japanese builders were provided to TESDA as teaching materials for training carpenters. These materials are used since the project completion.

<p>4. Production of charcoal with the “Fuse-yaki” method, a charcoal-making technique used in Japan.</p> <p>Since the traditional Japanese method of simple charcoal production called “Fuse-yaki” requires little initial investment in equipment, QIP-14 (production and sales of coconut charcoal) utilized this method to support activities to restore livelihoods without requiring large-scale capital investment or advanced technical transfer. For the charcoal production, coconut trees that fell during Typhoon Yolanda were used as raw materials, but since the fallen coconut trees were processed, and raw materials were no longer available, the activities were suspended before the ex-post evaluation. However, the production and sales of coconut charcoal provided valuable income at the early stage of the recovery to the coconut farmers who lost their livelihoods due to Typhoon Yolanda.</p>
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Source: Materials provided by JICA, interviews with QIPs stakeholders.

(3) Seamless assistance for improving aquaculture technology through various JICA schemes

As shown in Table 7, the project provided multilayered assistance through collaboration with other JICA schemes (Private Sector Partnership Program, JICA Partnership Program, and Japan Overseas Cooperation Volunteers).

Table 7. Various JICA schemes implemented in coordination with the project

<p>[Private Sector Partnership Program]</p> <p>As the operation rate of the submersible fish cages installed under QIP-1 had been declining, NITTO SEIMO CO., LTD. implemented the “Verification Survey with the Private Sector for Disseminating Japanese Technologies for Typhoon-Resistant Fish Farming Cage with the Submersible Function in the Typhoon Stricken Areas (2015–2019)” under JICA's scheme of Private Sector Partnership Program. Additionally, technical follow-ups and support for aquaculture management and the development of sales channels for cultured fish were provided. As of February 2017, only one out of the 20 cages installed in Tinaogan Barangay under QIP-1 was in operation, but at the time of ex-post evaluation, six cages were confirmed to be in operation. The operation rate, although only 30% overall, improved through coordination with private sector partnerships, contributing to the sustainability of the project effects.</p> <p>According to an interview with a person involved in the project, seeking an exit strategy after the project completion from the beginning of the project was a major factor that led to the collaboration with the Private Sector Partnership Program.</p>
<p>[JICA Partnership Program]</p> <p>In collaboration with the JICA Partnership Program “Development of Mariculture and Processed Products using Oku-Matsushima Techniques in Typhoon Yolanda-Affected Areas” (Incorporated Non-profit Organization (NPO) “Ishinomaki NPO Center”), the project conducted training programs in Japan on aquaculture and processed product development. Additionally, QIP stakeholders who participated in the training learned aquaculture technology in Japan. This project served as a bridge between Japanese NPO and Philippine stakeholders by collaborating with the JICA Partnership Program.</p>
<p>[Japan Overseas Cooperation Volunteers]</p> <p>By dispatching a Japan Overseas Cooperation Volunteer to the QIP-1 target areas, assistance was provided to the members of a women's association in designing labels for processed products and improving other marketing techniques. At the time of ex-post evaluation, the Basey LGU expressed its request for a continuous dispatch of Japan Overseas Cooperation Volunteers.</p>

Source: Materials provided by JICA, interviews with QIPs stakeholders.

(4) Synergies between grant aid projects and QIPs

As Table 8 shows, it was confirmed that the construction of facilities and procurement of equipment in the grant aid project formulated in the project and the implementation of

QIPs generated synergies for the re-establishment of the medical coordination system, as well as synergies for aquaculture activities and sales of processed products.

Table 8. Synergies between the grant aid project and QIPs

<p>1. Synergies in the re-establishment of the medical coordination system</p> <p>The RHU in Abuyog, a primary medical institution rebuilt under QIP-18, has been making referrals to the provincial health office, a secondary medical institution rebuilt under QIP-2. In addition, the Eastern Visayas Regional Medical Center, a tertiary medical institution where a plan to expand the center was formulated in the project and its ward was constructed under the grant aid project, is a referral destination for the RHU and the provincial health office rebuilt under QIP-18 and QIP-2. Therefore, in terms of synergies between the QIPs and the grant aid project, it can be said that the project contributed to the re-establishment of the regional medical coordination system. At the time of ex-post evaluation, the RHU in Abuyog reported a daily average of four to six referrals to the provincial health office and the Eastern Visayas Regional Medical Center.</p>
<p>2. Synergies for aquaculture activities and sales of processed food products</p> <p>In the activities of milkfish aquaculture in Basey (QIP-1), integrated aquaculture of oyster and milkfish in the Tanauan LGU (QIP-15), and lapu-lapu aquaculture in the Guiuan LGU (QIP-8), the options of juvenile fish suppliers increased through the assistance in rehabilitating equipment in the Guiuan Marine Fisheries Development Center under the grant aid project. In addition, regarding the lapu-lapu aquaculture in Guiuan (QIP-8), some lapu-lapu were sold in the rebuilt public market (QIP-9), which led to the re-establishment of the supply chain. Furthermore, the sales promotion project (QIP-13) strengthened the value chain from raw material production to processing and sales.</p>

Source: Interviews with QIPs stakeholders.

(5) Initiatives from the perspective of diverse groups (women, people with disabilities, the elderly, etc.)

As Table 9 shows, through the assistance of women's associations in QIP-1, QIP -3, and QIP-15, some cases related to women's empowerment and raising women's awareness were confirmed, such as gaining income sources, increasing self-confidence, improving communication skills, and building relationships. These cases suggest that the project not only improved economic livelihoods but also led to spiritual enrichment and human well-being.

In addition, according to the LGUs of Tacloban, Palo, and Tanauan, diverse perspectives were incorporated into evacuation plans by involving various groups of residents, including people with disabilities, pregnant women, and the elderly. For example, some measures from the perspective of women, such as the provision of private spaces for changing clothes and breastfeeding at evacuation centers, were reflected in the evacuation plans. Furthermore, public facilities rebuilt under QIPs were equipped with ramps and handrails for the elderly and people with disabilities, and the provincial health office was equipped with toilets for people with disabilities.

Table 9. Impact on women's empowerment

QIP-1	<p>According to the group discussion with members of a women’s association in Tinaogan Barangay during the ex-post evaluation survey, many women members were unemployed before Typhoon Yolanda, but were able to generate income through the activities related to the processing and sale of milkfish in QIP-1. At the time of ex-post evaluation, the association suspended activities related to the processing and sale of milkfish and changed its activities to the production of peanut butter and the sale of rice, and its 27 members continue to meet and work together regularly at least once a month.</p> <p>A member of the women’s association said that she was previously dependent on her husband's income, but now gained confidence by supporting her family financially. She also said that she used to stay at home most of the time, but the association’s activities became a place for her to exchange information related to her life, such as health and children's education, and helped her to develop social skills.</p>
QIP-3	<p>According to interviews with two women who participated in training under QIP-3, they received not only technical training on processed food, but also training on women's empowerment, such as the importance of savings and decision-making processes aimed at improving the association's activities. This resulted in income generation from the sale of processed food and improving household finances. One of them also said that she gained confidence by sharing her experiences in the association with her neighbors.</p>
QIP-15	<p>QIP-15 provided the women's cooperatives with the necessary equipment for processing milkfish, and conducted training on milkfish processing using pressure cookers, hygienic production methods, and simple bookkeeping.</p> <p>According to interviews with members of the women’s association, the activities of the association have been sustained. The women have not only increased their income but also improved their self-confidence and developed good relationships with others through the activities.</p>

Source: Interviews with QIPs stakeholders.

In light of the above, the project achieved the project purpose of “Making progress in the recovery and reconstruction of the target areas” through the revision work of the CLUPs, development of evacuation plans, and implementation of QIPs. Regarding the overall goal, it can be concluded that the project contributed to the reconstruction of the target areas by improving the capacity of government officials in reconstruction measures, providing continuous public services in the rebuilt facilities, and continuing some livelihood activities. Therefore, effectiveness and impacts of the project are high.

3.3 Efficiency (Rating: ③)

As mentioned in 1.1, the project applied the fast-track system to start its operations as soon as possible, and activities in the field began in February 2014, three months after Typhoon Yolanda. In addition, to hasten the recovery and reconstruction from the disaster, the project was launched before a specific plan was defined, and the activities were planned and implemented flexibly during the project implementation, taking into account local needs and the progress of recovery as well as requests from the implementing agencies. To assess efficiency, an analysis should be conducted to determine whether the inputs were commensurate with the produced outputs. However, it should be noted that because of this characteristic of the project, it is difficult to make a rigorous ex-ante and ex-post comparison,

as the outputs of the project were not specified in the project planning.

Therefore, in the ex-post evaluation, the project period of 26 months defined at the time of the R/D amendment was considered as the planned period, and the evaluation verified whether the produced outputs added after the R/D amendment were commensurate with the period extended after the R/D amendment. On the other hand, because the project cost at the time of the R/D amendment could not be confirmed, the amount at the beginning of the project was considered the planned amount, and the evaluation verified whether the increased project cost was commensurate with the produced outputs added at and after the R/D amendment.

3.3.1 Inputs

3.3.1.1 Elements of Inputs

The actual inputs for the project are listed in Table 10. The work volume (Man/Month (MM)) of the short-term experts increased from 153 MM to 297 MM following the R/D amendment. Subsequently, another 25 MM were added after the R/D amendment, bringing the total actual work volume of short-term experts to 322 MM, as shown in Table 11.

Table 10. Project inputs

Elements of Inputs		Plan	Actual (At the time of project completion)
Inputs from Japanese side	Expert Dispatch	Short-term experts 153 MM	Short-term experts 322 MM
	Training in Japan	N/A	38 persons
	Project cost from Japanese side	Total 970 million yen	Total 1,881 million yen
Inputs from Philippines side		1. Counterpart assignment 2. Office space	1. Counterpart assignment 2. Office space

Source: Materials provided by JICA.

Table 11. Work volume of short-term experts

	Plan	At the time of the R/D amendment	Actual	Increase/decrease after the R/D amendment
Output 1	60 MM	150 MM	165 MM	15 MM
Output 2	58 MM	66 MM	66 MM	0 MM
Output 3	35 MM	81 MM	91 MM	10 MM
Total	153 MM	297 MM	322 MM	25 MM

Source: Materials provided by JICA.

3.3.1.2 Project Cost

The actual project cost was 1,881 million yen compared to the planned cost of 970 million yen, significantly exceeding the plan (194% of the plan). The outputs produced during and after the R/D amendment are listed in Table 12.

Table 12. Additional outputs

Outputs added when the R/D was amended	Outputs added after the R/D amendment
<p>[Output 1] Assistance in formulating the basic design of structural measures (road heightening and tide embankment construction). Reflection of the structural measures in CLUPs and evacuation plans.</p> <p>[Output 2] Formulation of sub-projects of the Sector Grant to rebuild three elementary schools.</p> <p>[Output 3] Addition of QIP-16 (Rebuilding of an elementary school). [Output 3] Strengthening the QIPs (QIP-1, QIP-3, QIP-8, QIP-14, QIP-15) related to livelihood recovery (extension of period).</p>	<p>[Output 1] Development of the handbook “Building Safer Cities” for the revision of CLUPs. Updates of hazard maps for the LGUs of Tacloban, Palo, and Tanauan. Introduction of Area Management. Assistance in formulating Dream Plan (municipal development plans) for the Palo and Tanauan LGUs.</p> <p>[Output 3] Addition of QIP-17 to 22.</p>

Source: Materials provided by JICA, interviews with relevant organizations.

By the aforementioned additionally produced outputs, the following improvement in outcomes was confirmed.

1. [Output 1] Assistance in formulating the basic design for structural measures (road heightening and tide embankment construction) in the LGUs of Tacloban, Palo, and Tanauan led to the building of disaster-resilient cities.
2. [Output 1] Updated hazard maps of the LGUs of Tacloban, Palo, and Tanauan and the introduction of Area Management in the Palo and Tanauan LGUs led to high-quality revisions of CLUPs.
3. [Output 1] Development of the handbook “Building Safer Cities,” which contained the findings from the CLUP revision activities, led to the dissemination of the project activities to other regions.
4. [Output 3] The extension of five QIPs (QIP-1, QIP-3, QIP-8, QIP-14, and QIP-15) contributed to the entrenchment of activities related to livelihood recovery.
5. [Output 3] Seven additional QIPs were implemented (QIP-16 to 22), leading to the rapid rebuilding of public facilities and regeneration of livelihoods, and ultimately, rebuilding people’s daily lives.

As described above, although the actual project cost exceeded the planned amount, as Table 12 shows, many additional outputs were produced. As described above, this led to the improvement of various outcomes, such as the formulation of disaster-resilient development plans, revision of high-quality CLUPs, and rebuilding people’s daily lives, which greatly promoted the recovery and reconstruction of the target areas. Therefore, it is considered that the project cost was commensurate with additional outputs and improved outcomes.

3.3.1.3 Project Period

The actual project period¹⁷ was 36 months (February 2014 to January 2017), compared to the planned period of 26 months (February 2014 to March 2016)¹⁸ (at the time of the R/D amendment), meaning that the project period was extended by 10 months since the R/D amendment (138% of the plan). The 10-month extension brought about additional outputs (Table 12) and improved outcomes (e.g., preparation of disaster-resilient development plans and rebuilding of people's daily lives), which contributed to the progress of recovery and reconstruction in the target areas. Therefore, it is considered that the project period was commensurate with the produced outputs and the achievements of the project purpose.

In light of the above, both the project cost and project period are commensurate with the produced outputs and improved outcomes. Therefore, efficiency of the project is high.

3.4 Sustainability (Rating: ③)

3.4.1 Policy and Political Commitment for the Sustainability of Project Effects

The *PDP 2017–2022* formulated in 2017 mentioned the assistance of the DHSUD to LGUs to formulate CLUPs, which requires all LGUs to perform mainstream disaster risk reduction and climate change adaptation in their CLUPs. In addition, in the *NDRRMP 2020–2030*, which was revised from the *NDRRMP 2011–2028*, one indicator is the percentage of LGUs with approved evacuation plans in terms of disaster risk reduction.

Therefore, it can be said that policies are in place to support the sustainability of the project effects.

3.4.2 Institutional/Organizational Aspect for the Sustainability of Project Effects

(1) Institutional Aspect

With regard to CLUPs, various guidelines for CLUP formulation remain valid. In addition, the *Supplemental Guidelines on Mainstreaming Sustainable Land Management in CLUP* were developed by the DHSUD in 2019. The supplementary guidelines indicate that the process of developing (or revising) CLUPs should involve civil society, the private sector, academia, and so on by identifying stakeholders and holding workshops. In addition, the DHSUD finalized the simplified *Climate and Disaster Risk Assessment (CDRA) Module*, and approval of the module was awaiting the issuance of a Memorandum Circular at the time of ex-post evaluation. The module, which aims to provide reference material for LGUs in

¹⁷ Since the definition of project start and completion is not mentioned in the R/D, in the ex-post evaluation, the project start is defined as “the month when the expert team entered the field” and the project completion is defined as “the month when the field activities are completed.”

¹⁸ At the time of the R/D amendment (December 2014), the project period was changed from 18 months to 26 months.

formulating their climate change and disaster risk management plans, incorporates the contents of the handbook for the CLUP revision work “Building Safer Cities” compiled under the project.

Regarding evacuation plans, the Office of the Civil Defense¹⁹ (OCD) of the Department of National Defense has been developing various disaster risk reduction programs with a strategic and systematic approach. The programs were implemented in accordance with the *Office of Civil Defense Strategic Plan 2020–2022*.

(2) Organizational Aspect

In the Tacloban LGU, the City Planning and Development Office is responsible for revising the CLUP and evacuation plan, and disaster management. The Municipal Planning and Development Office plays these roles in the Palo and Tanauan LGUs. According to the Tacloban LGU, the City Disaster Risk Reduction and Management Office (83 staff), Engineer’s Office (80 staff), and other related offices are adequately staffed and organized to revise CLUPs and evacuation plans. According to the Palo LGU, there are 16 departments related to the revision of CLUPs and evacuation plans, including the Municipal Planning and Development Office (four staff) and the Municipal Disaster Risk Reduction and Management Office (two staff), which are fully staffed for the ongoing revision of the evacuation plan. In the Tanauan LGU, the process is underway to revise the CLUP by 2022. According to the Tanauan LGU, there is a plan to recruit temporary staff for the revision of the CLUP, and a budget has been secured for it.

Therefore, there was no concern regarding the institutional and organizational aspects of the sustainability of the project effects.

3.4.3 Technical Aspect for the Sustainability of Project Effects

Regarding the capacity for disaster risk reduction measures, the regional offices of the OCD conduct regular training for the administrative officers of LGUs in their respective areas to strengthen their capacity. Earthquake drills are conducted quarterly. In addition, according to the OCD, based on the sharing of Japan’s disaster experience and the experience of Typhoon Yolanda, they learned the importance of self- and mutual help in communities, rather than relying only on public assistance. Accordingly, the OCD provides various training courses (e.g., community-based disaster risk reduction courses) to communities to strengthen their capacity for disaster risk reduction using e-learning, online training, and social media.

¹⁹ In accordance with the *Disaster Risk Reduction and Management Act* enacted in 2010, it is positioned as the central organization for activities related to disaster risk reduction and management as the secretariat of the National Disaster Risk Reduction and Management Council.

In addition, LGUs provide training on disaster risk reduction measures to barangays and other stakeholders who respond to disasters (including volunteers, health care providers, educational personnel, the private sector, and NGOs) to strengthen the capacity of communities to reduce disaster risk.

Therefore, there was no concern regarding the technical aspect of the sustainability of project effects.

3.4.4 Financial Aspect for the Sustainability of Project Effects

The budgets of the LGUs of Tacloban, Palo, and Tanauan to revise the CLUPs and evacuation plans and to conduct evacuation drills are shown in Table 13.

Table 13. Budget to revise CLUPs and evacuation plans and to conduct evacuation drills
(Unit: Philippine peso)

LGU	Budget for the revision of CLUPs and evacuation plans			Budget for conducting evacuation drills		
	2018	2019	2020	2018	2019	2020
Tacloban	350,000	350,000	350,000	500,000	500,000	500,000
Palo	500,000	500,000	500,000	80,000	80,000	80,000
Tanauan	0	0	250,000	0	0	0

Source: Tacloban LGU, Palo LGU, Tanauan LGU.

According to the Tacloban and Palo LGUs, the budget to revise CLUPs and evacuation plans and to conduct evacuation drills, is sufficiently secured. As for the Tanauan LGU, the budget (250,000 pesos) to revise its CLUP and evacuation plan allocated for FY2020 was reallocated to activities related to COVID-19. As such, a budget of 80,000 pesos was newly allocated for FY2021 for the CLUP revision work. However, according to the Tanauan LGU, the budget for CLUP revision is not sufficient. As for evacuation drills, although no budget is allocated to the Tanauan LGU, schools and barangays that request lectures and evacuation drills bear the associated costs.

Therefore, although no specific concerns were observed in the Tacloban and Palo LGUs, financial concerns remain in the Tanauan LGU.

3.4.5 Status of Operation and Maintenance

In the public facilities rebuilt under the QIPs (the provincial health office (QIP-2), national agricultural school (QIP-4, 17), national high school (QIP-5), day care centers (QIP-6 and QIP-7), public markets (QIP-9, QIP-11, and QIP-12), slaughterhouse (QIP-10, 22), elementary school (QIP-16), and RHUs (QIP-18, QIP-19)), regular inspections and repairs were conducted under the initiative of LGUs and barangays, and operation and maintenance were properly managed.

Therefore, no particular concerns were observed in the operation and maintenance

status.

In light of the above, although a financial concern was identified in the Tanauan LGU, no major problems were observed in the policy background and the institutional/organizational, technical, and financial aspects. Therefore, sustainability of the project effects is high.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

This project was implemented in the target areas in the provinces of Leyte, Samar, and Eastern Samar affected by Typhoon Yolanda, with the purpose of advancing recovery and reconstruction by (i) promoting the development of disaster recovery and reconstruction plans, (ii) formulating recovery and reconstruction projects, and (iii) implementing the QIPs, thereby contributing to the reconstruction in the target areas. The objective of the project was highly consistent with the policies of the government of the Philippines and the needs of the affected areas, as well as with Japan's ODA policies. Therefore, the relevance of the project is high. With regard to effectiveness, the administrative capacity of LGU officials was strengthened through the assistance in revising CLUPs, which serve as the basis for reconstruction planning and urban development, and in developing evacuation plans, and through the activities of QIPs. In addition, through the implementation of QIPs, the rebuilding of disaster-resilient facilities and means of livelihood were confirmed. Regarding its impacts, the continuous use of skills and knowledge gained from the CLUP revision work and the use of disaster evacuation plans were confirmed in three LGUs (Tacloban City, Palo, and Tanauan Municipalities), where the project prioritized assistance. Moreover, it was confirmed that public services were continuously provided in the facilities rebuilt under QIPs, and some livelihood activities continued, both of which contributed to the reconstruction of the target areas. Therefore, effectiveness and impacts of the project are high. Efficiency of the project is high, as it is considered that both the project cost and project period are commensurate with the produced outputs. In terms of operation and maintenance to sustain the project effects, although there is a financial issue in the Tanauan LGU for the CLUP revision, no major problems were observed in the policy background, institutional/organizational and technical aspects, and status of operation and maintenance. Therefore, sustainability of the project effects is high.

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

4.2 Role and Contribution

Input of persons with experience in disaster reconstruction in Japan

From the start of the project planning stage, it was planned to utilize the experiences and lessons learned from the Great East Japan Earthquake in project activities. Therefore, JICA requested cooperation from Higashi-Matsushima City in Miyagi Prefecture during project planning, and invited the official of the city government and the board member of the Commerce and Industry Association to join as members of the project advisory committee, as both were engaged in the reconstruction of the city from the Great East Japan Earthquake. In addition, the advisory committee members were dispatched to the project sites to share their own experiences with the Philippines' stakeholders, and they delivered their messages to the stakeholders with convincing and powerful words regarding the reconstruction measures to be taken. Consequently, the lessons learned from the Great East Japan Earthquake, such as the importance of involving various stakeholders in reconstruction planning, which was emphasized in the project, were practiced in the target areas even at the time of ex-post evaluation. Therefore, the presence of not only expert international development consultants but also parties with experience in Japanese disaster reconstruction from the beginning of the project planning stage contributed greatly to raising awareness among LGUs' government officials and promoting inclusive reconstruction planning.

4.3 Recommendations

4.3.1 Recommendations to the Implementing Agency

(1) Basey LGU: Support for promoting the utilization of submersible fish cages provided in QIP-1 and the operation and maintenance of the processing plants constructed under QIP-21

To promote the operation of the unutilized submersible fish cages, it is recommended that the Municipal Agriculture Office (MAO) of the Basey LGU, the supervisory authority of QIP-1, provide technical assistance to fish farming associations. As for processing plants, where fish farming associations are responsible for the operation and maintenance of the facilities, their utilization is limited. For example, milkfish processing activity in Tinaogan Barangay has been suspended, and the processing plant is used only as a place to sell rice and other products. Therefore, it is recommended that the Basey LGU consider promoting the effective use of the processing plants and supporting stable and sustainable operation by securing a budget for FY2022 for the operation and maintenance of the facilities, including repair costs.

(2) Guiuan LGU: Support for resumption of lapu-lapu aquaculture and the operation and maintenance of the artificial feed preparation facility constructed under QIP-8

It is recommended that the Office of Municipal Agricultural Services (OMAS), the supervisory authority of QIP-1, provide technical and financial assistance to the fish farming association to resume lapu-lapu aquaculture in coordination with the Bureau of Fisheries and Aquatic Resources (BFAR) under the Department of Agriculture (DA). In addition, as the artificial feed preparation facility, whose operation and maintenance is conducted by the fish farming association, is currently used only for ice production, it is recommended that the Guiuan LGU promote the effective use of the facility and consider providing support for the operation and maintenance of the facility, including repair costs, by securing a budget for FY2022.

4.32.2 Recommendations to JICA

None

4.4 Lessons Learned

(1) Multi-faceted assistance for disaster recovery and reconstruction using various approaches

In this project, in addition to providing highly accurate hazard maps based on scientific data, assistance was provided for land use policy planning and disaster risk reduction measures under an inclusive approach involving diverse stakeholders. Hence, the project adopted an approach that combined scientific and people-oriented perspectives (e.g., protection of productive assets and cultural and environmental resources). Furthermore, in addition to providing assistance for structural measures (e.g., assistance for facility and embankment construction projects), assistance for non-structural measures (e.g., assistance for evacuation planning and restoration of people's livelihoods) was also provided, thus adopting both hard and soft approaches. In this way, various approaches were applied to provide multi-faceted emergency disaster assistance that strengthens the capacity of local governments and communities to reduce disaster risk. For similar projects in the future, the use of scientific and people-oriented approaches, as well as a mixed hard and soft approach, from the time of project planning and throughout the project implementation, will lead to better reconstruction assistance under the BBB concept.

(2) Multilayered assistance for disaster recovery and reconstruction through training in Japan and other various JICA schemes

The project was formulated and implemented in coordination with JICA's other schemes (Grant Aid Project, Private Sector Partnership Program, JICA Partnership Program, and

Japan Overseas Cooperation Volunteers) in addition to training programs in Japan for a total of four times, receiving cooperation from local Japanese governments, the private sector, and civil societies. In this way, by collaborating with various JICA schemes, the effects of the project and their sustainability were improved, and synergies were generated. For similar projects in the future, it would be effective to provide multilayered support utilizing various JICA schemes from the time of project planning through to project implementation.


END

PDM

Project Summary		Indicators
Overall Goal	Target areas are reconstructed.	<p>1. Building safer cities (Medium and long term)</p> <p>1-1. CLUPs are utilized.</p> <p>1-2. Evacuation plans are utilized.</p> <p>2. Rebuilding people's daily lives (Medium and long term)</p> <p>2-1. The provision of public services (health care, education, social services) is resumed and continues in the rebuilt facilities.</p> <p>3. Recovery of the regional economy and promotion of industries (Medium and long term)</p> <p>3-1. Businesses or livelihood activities resumed by QIPs continue.</p> <p>3-2. Employment is generated by QIPs.</p>
Project Purpose	Recovery and reconstruction in the target areas advance.	<p>1. Building safer cities (At project completion)</p> <p>1-1. Capacity of government officials for building disaster-resilient communities is improved through the process of disaster recovery and reconstruction planning and the implementation of QIPs.</p> <p>2. Rebuilding people's daily lives (At project completion)</p> <p>2-1. Disaster-resilient facilities are rebuilt through the implementation of QIPs.</p> <p>3. Recovery of regional economy and promotion of industries (At the project completion)</p> <p>3-1. Activities of local industries (agriculture, fishery, etc.) are resumed through the implementation of QIPs.</p> <p>3-2. People's livelihoods are regenerated through the implementation of QIPs.</p>
Outputs	Output 1	<p>Development of disaster recovery and reconstruction plans is promoted.</p> <p>1-1. Hazard maps are provided to 18 LGUs.</p> <p>1-2. Revision work of CLUPs is conducted reflecting disaster recovery and reconstruction plans and hazard maps in target areas.</p> <p>1-3. Evacuation plans are developed based on hazard maps and structural measures.</p>
	Output 2	<p>Recovery and reconstruction projects are formulated.</p> <p>2-1. Grant aid project is formulated to build safer cities, rebuild people's daily lives, recover the regional economy, and promote industries.</p> <p>2-2. QIPs are formulated.</p>
	Output 3	<p>QIPs are implemented.</p> <p>3-1. QIPs are implemented as planned.</p>

Source: Created by the evaluator.



Continuation status of QIPs

Province/ Municipality	QIP	Continuation Status
Samar/ Basey	QIP-1, 21	<p>In QIP-1, a total of 40 submersible fish cages were installed in four barangays¹ in the Basey LGU, and equipment for milkfish processing (e.g., pressure cookers) and assistance for developing processed products were provided to women's associations equipment (e.g., pressure cookers, etc.) were provided for milkfish processing. In addition, assistance was provided to women's associations for developing products and promoting sales in QIP-13. Furthermore, under QIP-21, a total of four processing plants were constructed in each barangay for regular processing activities for members of women's associations who learned the skills to process milkfish through QIP-1.</p> <p>According to an interview with a secretary of the fish farming association in Tinaogan Barangay, although all of the 20 submersible fish cages installed are in good condition, only 6 of them are in operation due to the lack of funds necessary to operate submersible fish cages, such as costs of labor, maintenance, and purchase of fingerlings and feed. The association is planning to rent out the unutilized submersible fish cages to individuals and private companies.</p> <p>The group discussion was also conducted with members of women's association in Tinaogan Barangay. According to them, the market demand for processed milkfish products was high, so they had regular customers and were receiving orders on a regular basis. They also exhibited and sold their products in malls, and a Japan Overseas Cooperation Volunteer (JOCV) helped them to improve label design and other marketing techniques. However, since the equipment for processing milkfish broke down in 2017 (spare parts were not available locally), 27 members of the women's association have not been processing milkfish since then, but instead have been making peanut butter and trading rice at the processing plant.</p> <p style="text-align: right;">Constructed processing plant (QIP-21)</p> 
Leyte/ Palo	QIP-2	<p>After rebuilding of the provincial health office, healthcare services and programs such as the "Women's Health and Safe Motherhood Program," "Family Planning Program," "Responsible Child Care," and "Maternal Nutrition Program," among others, resumed. In particular, the early resumption of general medical services (such as the treatment of pneumonia in children) and vaccinations (such as for rabies) helped to prevent serious illnesses during the aftermath of Typhoon Yolanda.</p> <p>As for the operation and maintenance of the facility, there were water leaks from the ceiling and cracks in the walls, but those were repaired in 2019 in the follow-up project by JICA. Since then, services continued to be provided without any problems. It is reported that minor damage in the facility is repaired immediately to prevent further damage.</p>

¹ Tinaogan Barangay: 20 submersible fish cages, Amandayehan Barangay: 10 submersible fish cages, Cambayan and San Antonio Barangays: 5 submersible fish cages each.

			
Leyte/ Tolosa	QIP-3	<p>In QIP-3, a multi-purpose livelihood building was constructed and food processing equipment was provided, as well as food processing training was conducted. According to a member of the women association who participated in the food processing training, she learned how to improve the quality of processed foods and how to preserve them in good condition, and she could earn an average of 500 pesos per month by selling the processed products using the techniques learned from the sales promotion activities conducted in QIP-13.</p> <p>Approximately 30 women who were not working before the project could earn income through these activities, but at the time of ex-post evaluation, the activities were suspended due to COVID-19. The women continued to process meat for their family's consumption at the time of ex-post evaluation, and stated that the processing skills they learned in the training were useful. They said that once the COVID-19 situation settles down, they want to resume food processing activities under the guidance of the LGU.</p> <p>Another woman who participated in the training on milkfish processing (de-boning of milkfish) was processing about five days a month and was paid 180 pesos a day from the association. Due to the COVID-19 pandemic, however, she has been inactive at the time of ex-post evaluation. She said that she processes milkfish when she receives personal orders from her neighbors. It was reported that before the project, most of the members of the association were housewives and did not earn an income, but after the implementation of the project, many of the women were able to earn a net income of 500-700 pesos per month.</p>	
Leyte/ Dulag	QIP-5		
		Constructed multi-purpose livelihood building	Provided food processing equipment
		<p>The rebuilt national high school continues to provide educational services. The reconstruction of the school building led to the early resumption of classes. According to the school principal, the school has been used as an evacuation center and saved many lives in the Dulag LGU, where there have been frequent typhoons since Typhoon Yolanda.</p> <p>As for the operation and maintenance of the facility, when minor damage such as rain leaks occurred during typhoons, repair work such as repainting of ceilings and repair of concrete gutters was carried out and no major problems were reported.</p>	



				
Leyte/ Dulag	QIP-10, 22	<p>The old facility was washed away by Typhoon Yolanda, but after the reconstruction of the facility, it is able to meet the municipal demand for meat slaughtering. In addition, the access road from the facility to a national road was rehabilitated under QIP-22, making it safe and easy to convey livestock to the slaughterhouse and deliver the meat after processing.</p> <p>According to a facility manager, the early reconstruction of the facility enabled many people who were jobless after Typhoon Yolanda to earn income. They were also able to resume their activities quickly and deliver safe meat to consumers. Currently, they are processing an average of 30 cattle per day.</p> <p>As for the operation and maintenance of the facility, minor repairs such as roof leaks, broken floor tiles, and broken faucets occur, but the Dulag LGU responds quickly and there are no particular problems.</p>		
Leyte/ Dulag	QIP-19			
		Slaughterhouse (QIP-10)	Rehabilitated access road (QIP-22)	
		<p>Due to damage caused by Typhoon Yolanda, people who needed medical services had to go to distant hospitals that were functioning. However, with the early reconstruction of the RHU, the primary medical services (consultation, treatment, referral to secondary and tertiary medical care, etc.) were able to resume.</p> <p>As for the operation and maintenance of the facilities, although there were minor problems such as rain leaks after the typhoons, the Dulag LGU repaired them promptly, allowing the RHU to continue providing services with no problems.</p>		
				

		Rural health unit (exterior view) Rural health unit (interior view)
Leyte/ Mayorga	QIP-12	<p>In the rebuilt public market, the sale of goods and other businesses resumed. The early resumption of economic activities has led to the recovery of employment and income loss.</p> <p>As for the status of operation and maintenance of the facility, water leaks occurred. The cost of those repairs was incorporated into the FY2022 budget of the Mayorga LGU.</p>
Leyte/ Abuyog	QIP-18	<p>At the rebuilt RHU, healthcare services such as medical consultations, simple surgeries, deliveries, and medical tests resumed. Even during the COVID-19 pandemic, the services continued while taking COVID-19 measures, such as installing plastic shields at the counters and conducting medical consultations under a tent outside the building when there are a large number of consultations.</p> <p>As for the status of the facility's operation and maintenance, the air conditioner and lighting are inspected quarterly by technicians of the Abuyog LGU, but a large crack in the wall of the delivery room caused by an earthquake two years ago has not yet been repaired. Since it was not included in the FY2021 budget, it will be repaired in the FY2022 budget.</p>
Leyte/ Tanauan	QIP-15, 20	<p>In QIP-15, assistance was provided for installing oyster and milkfish aquaculture equipment² and for developing processed oyster and milkfish products for women's associations. In addition, in QIP-13, assistance was provided to promote the sales of processed products. Furthermore, a processing plant was constructed in QIP-20.</p> <p>According to an interview with a woman who participated in the training of trainers on fish processing and marketing, the activities related to milkfish culture and sales are continuing and the fish farming association earns about 6,000 pesos per month from these activities. She herself earns 500 pesos a month by selling adult milkfish, even during the COVID-19 pandemic. Processing activities, on the other hand, were suspended due to the COVID pandemic. Before the COVID-19 pandemic, there were many orders for processed milkfish products, some of which were from Manila, but people have become more sensitive to hygiene and prefer raw milkfish rather than processed products. She hopes to improve her aquaculture and processing skills when COVID-19 ceases.</p> <p>According to an interview with a woman who participated in the oyster aquaculture training, she could earn an average of 300 pesos per day during the oyster aquaculture season through project activities. However, oyster aquaculture activities are currently suspended because the Philippine government's ongoing embankment construction near the aquaculture area that started in 2019 contaminated the farm and reduced the oyster population. She hopes to restart oyster aquaculture activities once the embankment construction is completed and the contamination of the aquaculture area is alleviated.</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p>Constructed processing plant Provided equipment for processing</p>
Leyte/ Tanauan	QIP-16	<p>Educational services are continuously provided in the rebuilt elementary school. It was reported that the clean and open space is a suitable learning environment for children. The facility is also used as an evacuation center in case of disaster.</p> <p>As for the operation and maintenance of the facility, when rain leaks occurred in the roof, they were repaired immediately and no major problems were reported.</p>

² Aquaculture net pens and oyster shelves.

		 
		<p>Entrance of the elementary school Ramp for people with disabilities</p>
Eastern Samar/ Balangiga	QIP-4, 17	<p>The rebuilt national agricultural school continuously provides vocational and technical training courses such as carpentry, tourism, baking and patisserie, cooking, welding, driving, electrical engineering, and food processing, as well as competency assessment services (services to issue certificates necessary for employment). According to a facility official, despite the aftermath of Typhoon Yolanda, the services resumed early and training and competency assessment services were provided to those who had lost their jobs, helping to secure employment and restore livelihoods, through the project's rebuilding of the facility and installation of the necessary equipment. In addition, the provision of equipment allowed for the development of 18 programs after the project implementation, whereas there were only 5 programs registered at TESDA before Typhoon Yolanda.</p> <p>As for the operation and maintenance of the facility, there have been no problems. Since April 2020, when the COVID-19 pandemic started, the school has been providing vocational training with a capacity limit of 30-50% of trainees per room.</p>  
		<p>National agricultural school Provided cooking equipment</p>
Eastern Samar/ Salcedo	QIP-6	<p>At five day care centers rebuilt in five barangays (Sitio Guba, Sitio Layag, Sitio Malobago, San Roque, and Sta. Cruz), day care services for young children have been continuously provided at the time of ex-post evaluation. At the day care center in Sitio Layag Barangay, service was temporarily closed two years ago due to low enrollment of children between the ages of three and five, but has since resumed. The four day care centers besides the one in Sitio Layag Barangay near the sea, are used as evacuation centers during typhoons and other disasters. In addition, the day care center in San Roque Barangay is also used as a meeting venue for various community meetings by governmental and non-governmental organizations. During the COVID-19 pandemic, the day care center in Sitio Guba Barangay was also used as a quarantine center for people who tested positive.</p> <p>As for the operation and maintenance of the facility, cracks in the windowpanes and walls sometimes occur, but the barangay government takes care of the repairs.</p>
Eastern Samar/ Guiuan	QIP-7	<p>The rebuilt day care center is used as a place for children's day care sessions held from Monday to Friday, as well as for parents' meetings. The facility before the reconstruction was blown away by Typhoon Yolanda due to its simple construction. However, the rebuilt facility provides a suitable learning environment (resilient building, spacious and clean space, good ventilation, etc.) for children and contributes to early childhood education. Before the COVID-19 pandemic, 30 children between the ages of three and four were attending the sessions, but the day care service is</p>

		<p>currently suspended due to the COVID-19 pandemic. The facility is also used as a training center for TESDA on an irregular basis. At the time of the qualitative survey conducted in this ex-post evaluation, a 28-day skills training course for TESDA was being conducted with 11 trainees participating.</p> <p>As for the operation and maintenance of the facility, the day care workers, together with the barangay officials, were reported to be cleaning and maintaining the facility on a regular basis (at least once a week). The barangay government is responsible for the repair and cleaning of the facility, the municipal government pays the electricity bill, and the parents pay the water bill.</p> <div style="display: flex; justify-content: space-around;">   </div> <p style="display: flex; justify-content: space-around;"> Entrance of the day care center Scene of TESDA training </p>
Eastern Samar/ Guiuan	QIP-8	<p>In QIP-8, submerged fish cages and related equipment were provided and technical training on the submerged fish cages was conducted. According to a man who participated in the technical training, before Typhoon Yolanda, there were orders for lapu-lapu from Chinese merchants, and they were sold at 4,000 pesos per kilogram, especially during the Chinese New Year. However, as Chinese merchants started buying from Australia, the unit price decreased annually, and in 2018-2019, he could only sell for 1,000 pesos per kilogram. In addition, he could not earn enough income to pay workers, as he required four to five employees, nor could he afford to buy feed for the aquaculture, so the lapu-lapu culture using submerged fish cages lasted only about a year after the project was completed. Typhoon Ursula in 2019 destroyed the compressors used to sink the submerged fish cages. It has been difficult to secure funds to purchase new fish cages and aquaculture activities completely stopped since then.</p> <p>According to a woman who participated in the training on environmentally friendly aquaculture techniques, she learned how to save energy and to use solar energy. Lapu-lapu culture did not last because of the high cost of aquaculture feed and the decreasing number of customers each year. To earn some income, this woman uses a freezer provided by the project to sell ice and earns about 500 pesos per month. The freezer is also used to store the caught fish and fish feeds. The artificial feed preparation facility built under QIP-8 is used to store generators, batteries, and machines for preparing fish feed and as a place to produce ice.</p> <div style="display: flex; justify-content: space-around;">   </div> <p style="display: flex; justify-content: space-around;"> Artificial feed preparation facility Submerged fish cage destroyed by Typhoon Ursula </p>
Eastern Samar/ Guiuan	QIP-9	<p>According to a facility manager, the rebuilt public market is continuously used as a marketplace for farmers and entrepreneurs to sell their products. A roof of an old building before its reconstruction was blown off by Typhoon Yolanda, walls were badly damaged, and the water supply system did not function, so very little trading occurred, as it was directly exposed to the sun and rain, resulting in a sharp drop in revenue. Before</p>

		<p>the reconstruction, the number of vendors was about 50 to 60 per day, but after the reconstruction, the number increased to about 200. The number of buyers and customers at the market increased from less than 400 per day before the reconstruction to more than 1,000 after the reconstruction. In addition, the revenue collected by the Guiuan LGU from the public market increased from 400,000 pesos per month before reconstruction to over 1 million pesos per month after reconstruction.</p> <p>As for the operation and maintenance of the facility, inspections are conducted daily, and when the paint on the pillars is peeling or the water pipes are clogged, the Guiuan LGU repairs them promptly. According to the facility manager, he is satisfied that the facility is durable enough to withstand all the typhoons that have passed through since Typhoon Yolanda.</p>
		<div style="display: flex; justify-content: space-around;">   </div> <p>Public market (exterior view) Public market (interior view)</p>
Eastern Samar/ Mercedes	QIP-11	<p>In the rebuilt public market, several stores opened to sell food and other products. Electricity and water supply were reactivated soon after Typhoon Yolanda, allowing people to reopen their businesses at an early stage. This helped to secure a source of income for residents who opened stores in the market, while many people lost their means of livelihood after Typhoon Yolanda.</p> <p>As for the operation and maintenance of the facility, LGU officials always keep it clean. Even during the COVID-19 pandemic, vendors continued to run their business in accordance with the municipal guidelines, making sure to wear masks, maintain social distance, and wash their hands.</p>
Eastern Samar/ Mercedes	QIP-14	<p>To secure a means of livelihood for coconut farmers affected by Typhoon Yolanda, technical assistance was provided to make coconut charcoal from fallen coconut trees by introducing the Japanese “Fuse -yaki” technique. According to a man who participated in the training, he could produce 36 bags of coconut charcoal in three weeks to a month (100 pesos per bag). Coconut charcoal production has not occurred since 2015, as most of the fallen coconut trees were burned to make charcoal.</p> <p>A woman who participated in the training has also not been involved in coconut charcoal production since 2015 as the fallen trees are no longer there. She earned 200 pesos a month, which she could spend to buy coffee, sugar, and other small items from a store. In addition, QIP-14 promoted intercropping of coconut, as the charcoal-burned area provides good soil for growing horticultural crops. The woman was continuing to cultivate and sell horticultural crops at the time of ex-post evaluation.</p>

Source: Interviews with QIP stakeholders.