

Nepal

FY2022 Ex-Post Evaluation of Technical Cooperation Project for Development Planning
“Project on Rehabilitation and Recovery from Nepal Earthquake”

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0. Summary

The project aimed to promote rehabilitation and recovery in the target areas in the Kathmandu Valley, Gorkha District, and Sindhupalchok District, which were affected by the April 2015 Nepal Earthquake, through ① development of a Kathmandu Valley Resilience Plan and District Rehabilitation and Recovery Plans, ② promotion of the dissemination of earthquake-resistant buildings and structures, ③ formulation of priority recovery projects (grant program)², and ④ implementation of priority urgent rehabilitation projects (Quick Impact Projects, hereinafter referred to as “QIPs”), thereby contributing to the development of a more disaster-resistant nation and society, particularly in the target areas. This project was consistent with Nepal's development policy, the development needs of Nepal's earthquake rehabilitation and recovery, and Japan's ODA policy. In addition, there was both internal and external coherence: activities were carried out in collaboration with related JICA technical cooperation and grant aid, and the formulation of earthquake-resistant building guidelines contributed to the World Bank and Asian Development Bank's housing and school construction loans. The outputs of these projects were obtained and synergy effects with inside and outside projects of JICA were verified; thus, relevancy and coherence are high. By the end of cooperation through the project the outcomes had generally been achieved, with no negative impact. The project is considered to have had an impact on gender perspectives and on people whose equitable participation in society has been impeded. In terms of achievement of the overall goal after project completion, there was ②a promotion of use of guidelines for earthquake-resistant buildings and structures. However, ①the plans developed were not linked to utilization, and ③ it cannot be said that, as a part of livelihood recovery, QIPs had sufficient effect to commensurate with the inputs. Thus, effectiveness and impact are moderately low. although project cost exceeded the original plan, it corresponded with the increase in output, and the project period was within the plan of the revised R/D. Therefore, the efficiency of the project is high. Sustainability of the effects of the Project is expected for the continued use of the earthquake resistant building guidelines, the related materials and QIPs related to public facilities and infrastructure. However, regarding the Kathmandu Resilience Plan developed by the Project, rehabilitation and recovery plans for Gorkha and Sindhupalchok

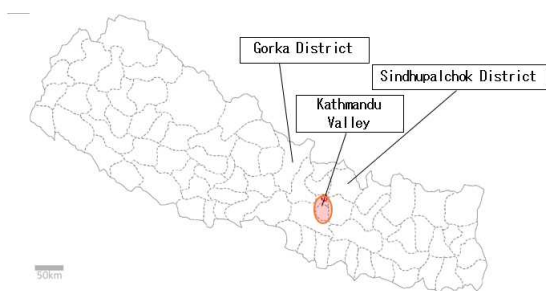
¹ Professor, Department of International and Regional Studies, Faculty of International Studies, Toyo University. Mainly in charge of the technical evaluation of the water pipeline to the Chautara Municipality and the Barhakilo-Barpak road bridge project. Conducted a field visit to the subject project, evaluated the current status and operation and maintenance of each facility, and provided advice on evaluation analysis on each output, conclusion, lessons learned, etc. . The overall evaluation report was compiled by OPMAC Mishima.

² Grant aid cooperation which implements several subprojects flexibly as one program

districts, wherein agriculture related QIPs aimed at restoring livelihoods and seed storage facilities, etc., some minor issues were observed in terms of the organizational, technical, and financial aspects and the continuation of the effect by the project was more limited than originally expected. These issues are not expected to be improved/resolved. Therefore, the sustainability of the project effects is moderately low.

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

1. Project Description



Project Location Map



Barpak, Gorkha District.
Local Government (Ward) Office
(Source: external evaluator)

1.1 Background

On April 25, 2015, a magnitude 7.8 (U.S. Geological Survey) earthquake occurred, with its epicenter about 80 km northwest of the capital Kathmandu. The subsequent aftershocks caused extensive damage, with 8,790 people killed, 22,300 injured, approximately 500,000 houses completely destroyed and 260,000 houses half destroyed.³

According to estimates by the United Nations, the Nepalese government, and others, while 20% of the total population lives in the 14 Districts designated as particularly hard-hit areas⁴, more than 90% of all casualties and serious damage to both public facilities and private residences from the recent earthquake were concentrated in these 14 Districts. In addition, many roads and bridges across the country were damaged by the landslides that were occurred approximately 3,300 and more sites including those in the Tibetan side, and other disasters caused by the earthquake, which hampered the recovery and reconstruction of the affected areas, including these 14 Districts.

Under these circumstances, the Japan International Cooperation Agency (JICA) dispatched a survey mission to Nepal from April 26, 2015, to gather information in order to conduct a needs

³ *Nepal Earthquake 2015 Post Disaster Needs Assessment-Executive Summary* Government of Nepal Planning Commission, 2015, Kathmandu.

⁴ Dolakha, Sindhupalchok, Gorkha, Nuwakot, Rasuwa, Dhading, Karvrepairanchowk, Ramechharp, Bhaktapur, Okhaldhunga, Sindhuri, Lalipur, Kathmandu and Makawanpur districts.

assessment on rehabilitation and recovery assistance and to identify specific projects that should be urgently addressed. In addition, on May 25, 2015, a seminar was held in Kathmandu under the joint sponsorship of the Nepalese government and JICA to share Japan's experience in earthquake recovery to date and to introduce examples of future recovery planning and specific recovery projects. In this context, taking into account the “Sendai Framework for Disaster Reduction 2015-2030” adopted at the Third United Nations World Conference on Disaster Reduction held in Sendai in March 2015 and the “Sendai Disaster Reduction Cooperation Initiative” announced by the Japanese government, the need to create a more disaster-resilient national reconstruction policy that reflects the concept of Build Back Better (hereinafter referred to as “BBB”) was emphasized as an opportunity to build a society that is more resilient to disasters than it was before the disaster occurred, as the country moves from emergency response immediately after the earthquake to recovery and reconstruction. The Nepalese side also expressed their support for this concept. Under these circumstances, the Japanese government decided to provide support for the formulation of a rehabilitation and recovery plan and the promotion of earthquake-resistant construction as part of the “Rehabilitation and Recovery Support Program” undertaken by the Nepalese government.

1.2 Project Outline

Since this project was a Technical Cooperation Project for Development Planning, no Project Design Matrix was prepared. Based on the statement in “(2) Purpose to be achieved through utilization” in “Purpose expected to be achieved after the completion of the cooperation” in the ex-ante evaluation paper, “In Kathmandu, resilience in preparation for further earthquake disaster will be promoted, and in the local districts, rehabilitation and reconstruction will be promoted by utilizing the resources and strengths of the districts concerned to create a more disaster-resistant nation and society,” the table below summarizes the purpose expected to be achieved after completion of the cooperation. In the case of the technical cooperation for development planning, the main purpose was to produce outputs (results) to be achieved within the project period, thus, “rehabilitation and recovery are promoted in the target areas.” was considered as the purpose to be achieved by the end of the cooperation.

Purpose expected to be achieved after the end of cooperation		To contribute to the formation of a more disaster resilient nation and society in the Kathmandu Valley and Districts.
Purpose to be achieved by the end of cooperation		Rehabilitation and recovery are promoted in the target areas.
Outputs	Output 1	Formulation of Kathmandu Valley Resilience Plan and the Grand Design for Rehabilitation and Recovery of Target Districts
	Output 2	Promotion of the dissemination of earthquake-resistant buildings and structures

	Output 3	Formation of priority reconstruction projects (Grant Program)
	Output 4	Implementation of Priority Quick Impact Projects (QIPs)
Total cost (Japanese Side)	2.23 billion yen	
Period of Cooperation	July 2015 - December 2019 (of which extension period: July 2017 - December 2019)	
Target Areas	Kathmandu Valley (Kathmandu District, Lalitpur District, Bhaktapur District), Sindhupalchok District, Gorkha District	
Implementing Agency	National Planning Commission (NPC) (Initially NPC, and most of the time during the project implementation, National Reconstruction Authority */National Disaster Risk Reduction Management Agency)	
Other Relevant Agencies / Organizations	<ul style="list-style-type: none"> • Ministry of Urban Development • Ministry of Federal Affairs and Local Development • Ministry of Finance • Ministry of Home Affairs • Ministry of Physical Infrastructure and Transport • Ministry of Education • Kathmandu Valley Development Authority • Sindhupalchok and Gorkha District Governments 	
Consultant/Organizati on in Japan	Oriental Consultants Global Co., Ltd., Pacific Consultants Co., Ltd., Mohri Architect & Associates, Inc., CTI Engineering International Co., Ltd., Pasco Corporation	
Related Projects	<p>【JICA Technical Cooperation】 < Existing projects at the time where the earthquake response was implemented > “The Project on Urban Transport Improvement for Kathmandu Valley” (July 2014-December 2015) “The Project for Integrated Research on Great Earthquakes and Disaster Mitigation in Nepal Himalaya (SATREPS)” (July 2016 - July 2021) “The Project for the Operation and Maintenance of Sindhuli Road” (December 2011 - January 2016) “Project for Assessment of Earthquake Disaster Risk for the Kathmandu Valley” (2015-2018)</p> <p><Related projects after implementation of this project > “The Project for Strengthening Disaster Risk Governance for Resilience in the Kathmandu Valley” (planned for 2021-2025) “The Project on Participatory Rural Recovery” (2019-2023)</p> <p>【JICA Grant Aid】 “The Program for Rehabilitation and Recovery from Nepal Earthquake” (G/A signed in February 2016)</p> <p>【JICA Technical Assistance Project related to ODA Loan】 “Nepal Technical Assistance for Emergency Reconstruction Support Project” (Housing Project, School Project) (December 2015 - March 2019)</p> <p>【JICA ODA Loan Projects】 “Emergency School Reconstruction Project”(signed in 2015) “Emergency Housing Reconstruction Project” (signed in 2015)</p> <p>【Other donors】</p>	

	ADB “Nepal: Earthquake Emergency Assistance Project” (signed in August 2015) WB “Earthquake Housing Reconstruction Project”(signed in June 2015)
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* Dissolved at the end of 2021.

2. Outline of the Evaluation Study

2.1 External Evaluator

Mitsue Mishima, Ryo Matsumaru (OPMAC Corporation)

2.2 Duration of the Evaluation Study

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

Duration of the Study: October 2022 –February 2024

Duration of the Field Study: March 19–April 9, 2023, July 22–28, 2023

2.3 Constraints during the Evaluation Study

The National Reconstruction Agency (hereinafter referred as “NRA”) was dissolved in 2021; the National Disaster Risk Reduction Management Agency (hereinafter referred as “NDRRMA”), which was established at the end of 2019, took over some of the NRA's operations and was the contact for the ex-post evaluation study. However, NDRRMA does not have any former NRA officials and it was impossible to conduct interviews regarding this project. As for the ministries, Nepalese counterparts who were directly involved in the implementation of the project could not be contacted, except for the staff of the Ministry of Urban Development, and could not be interviewed directly.

In addition, the Project's Outcome 2, “Promotion of the dissemination of earthquake-resistant buildings and structures”, overlaps in content with two technical assistance projects for ODA loan projects, which were implemented almost simultaneously with this project. Since those projects were implemented concurrently, Outcome 2 of the Project includes the results of the activities of the technical assistance for ODA loan projects.

2.4 Scope of Evaluation of the Project

For Outcome 3 “Formation of Priority Reconstruction Projects (Grant Program)” of the project, the project was evaluated up to the outputs of project selection and outline formulation as the scope of the project, and the six criteria evaluation of the priority reconstruction projects under Outcome 3 will be verified by the grant aid “Program for Rehabilitation and Recovery from Nepal Earthquake” (2016-2019).

“Majuwa No. 1 and No. 2 Water Supply Headrace Improvement Project” (refer to Table 1 QIP list in Attachment) implemented as QIP-24 of this project, contains part of the water transmission

system to Chautara Municipality⁵ and was originally included in the Grant Aid. The installation of the water pipeline in the Majuwa system has directly affected the Relevance, Effectiveness/Impact, and Sustainability of the Chautara water transmission system project under the Grant Aid Program, and therefore it was included in the ex-post evaluation of the project of Grant Aid Program and analyzed in an integrated manner. ⁶ The ex-post evaluation of this project covers the analysis of the Efficiency and sustainability of the Majuwa system water pipeline installation as a single project, while the other evaluation item is within the scope of the ex-post evaluation of the grant aid.

In addition, two bridge projects along the Barhakilo-Barpak road (QIP-25 “Khare Khola Bridge Construction Project” and QIP-26 “Jhyalla Khola Bridge Construction Project” in Attachment Table 1), which were implemented as QIPs of this project, were originally included in the grant aid. In the ex-post evaluation of this project, interviews were conducted with stakeholders in the areas surrounding the bridges that were the target projects of the QIPs, and the impact was confirmed as an integral part of the entire area along the road between Barhakilo-Barpak, including the bridges that were also the target of the grant aid.

3. Results of the Evaluation (Overall Rating: C⁷)

3.1 Relevance / Coherence (Rating: ③⁸)

3.1.1 Relevance (Rating: ③)

3.1.1.1 Consistency with the Development Plan of Nepal

In 2009, the Government of Nepal formulated the *National Strategy for Disaster Risk Management*, which provided a roadmap for the preparation of disaster management programs in all sectors and policy decisions for mainstreaming disaster management in each development plan. Subsequently, the Ministry of Home Affairs prepared the *National Disaster Response Framework* in July 2013, organizing the roles of each agency during and before disasters. In this framework, the Ministry of Urban Development was designated as the organization in charge of seismic risk assessment, and the Ministry of Home Affairs, Ministry of Federal Affairs and Local Development, and local governments were designated as implementing cooperation agencies.

Nepal's *13th Development Plan (2013-2016)* at the time of the earthquake also aimed at mainstreaming disaster management in the development process. It stated the development and

⁵ As of the ex-post evaluation in 2023, Chautara Sangachowkgadi Municipality was the formal name, however, it is hereinafter referred to as Chautara Municipality, which was the name used at the time of project planning.

⁶ Specifically, the ex-post evaluation of the grant aid examines ① In “Relevance”, the project plan, approach, etc. for the change of plan and consensus building regarding the construction of the water pipeline in the Majuwa system, ② In “Effectiveness and Impact”, effect of the water supply in Chautara, and ③ In “Sustainability”, the organizational structure and so on.

⁷ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

⁸ ④: Very high, ③: High, ②: Moderately Low, ①: Low

implementation of legislation that would enable effective implementation of the disaster management cycle at various stages, together with capacity building for disaster management and disaster response activities. The “*National Strategy for Disaster Risk Management*” (2009) was reviewed.

Efforts to address disaster response capacity has been continued in the 15th Development Plan (2019/20-2023/24) since 2019, the year of completion of the Project. Increasing resilience to natural disasters and climate change has been one of the priority areas.

The *Disaster Risk Reduction Policy* (2018) addressed the enhancement of disaster information and awareness at the community level, the development of disaster risk assessment and mapping systems, the strengthening of disaster management capacity at the federal and local government levels, and promotion of the BBB concept. The content of this project was to support these efforts.

As can be seen in the above, this project was consistent with the development policy of the Nepalese government from the time of planning to the time of completion.

3.1.1.2 Consistency with the Development Needs of Nepal

After the massive earthquake, the Nepalese government assessed the damage, temporarily suspending new construction and reviewing building standards, as most of the damage took the form of collapsed buildings. In addition, as government policy, the government requested that donors take prompt action to restore damaged schools, government buildings, and other public facilities as soon as possible. This project, which included the promotion of earthquake-resistant houses and schools, and the restoration of public facilities from planning to construction, considering their durability and earthquake resistance, was in line with these efforts.

Project outputs were: 1. formulation of the Kathmandu Valley Resilience Plan and the Grand Design for Rehabilitation and Recovery of Target Districts, which were long-term plans that set the direction for rehabilitation and reconstruction; 2. promotion of the dissemination of earthquake-resistant buildings and structures for the future of the most serious collapsed buildings; 3. formation of priority rehabilitation projects (grant program) for critical infrastructure that had suffered damage; and 4. implementation of priority Quick Impact Projects (QIPs), which required a rapid reconstruction response. As described above, all of these were highly necessary in Nepal. The reflection of the BBB concept in rehabilitation and recovery was embodied in the various project components. The project components were consistent with the development needs for rehabilitation and reconstruction in Nepal.

3.1.1.3 Appropriateness of Project Plan and Approach

As emergency disaster assistance, the “Fast Track System” was applied to this project, which expedited and simplified the implementation procedures. The selection and planning of the grant

program and QIPs were to be conducted in this project at the time of ex-ante evaluation. From the perspective of expediting project implementation and facilitating project management, the approach of this project plan is considered appropriate with the following two points in mind.

The first point is that, at the time of the ex-ante evaluation of this project, it was planned that QIPs would be implemented immediately with an awareness of the need for speed in realizing the effects, and with a focus on projects with minor damage from past Japanese grant aid projects, and projects with high priority, such as the construction of earthquake resistant model houses and schools, which were to be implemented as soon as possible. This approach came as a result of utilizing the lessons learned from “The Project on Rehabilitation and Recovery from Typhoon Yolanda,” a technical cooperation project in the Philippines. (see Attachment Table 1 for the 24 QIPs). In the ex-post evaluation of this point, the existing documents were reviewed and interviews with relevant parties were conducted during the field survey, through which it was found that the “QIP-23 Construction Safety Improvement Project for Housing Reconstruction,” which was related to the implementation of the Japanese ODA loan project “Emergency Housing Reconstruction Project”, was implemented early in 2016, in Chautara, Sindhupalchok District. Also, rapid implementation of many other QIPs had been planned and completed by 2017-2018.

The second point was that, again based on the experience of “The Project on Rehabilitation and Recovery from Typhoon Yolanda”, the lesson had been learned that the JICA side should take the initiative in forming projects while conducting surveys based on requests from the Nepalese government, and that the appropriate number of projects and number of ministries concerned should be taken into consideration. According to interviews with JICA officials, the target area was limited to two districts and the number of projects was limited to three projects (hospital reconstruction, bridge construction, and water pipeline reconstruction) in order to avoid bidding with no bidder and to facilitate project management.

3.1.2 Coherence (Rating:③)

3.1.2.1 Consistency with Japan’s ODA Policy

JICA, under the four priority actions⁹ of the Sendai Framework for Disaster Reduction 2015-2030 (April 2015) adopted at the Third United Nations World Conference on Disaster Reduction and the Japanese government's policy of contributing to the Sendai Disaster Reduction Cooperation Initiative (March 2015), was to contribute to BBB by providing seamless services from emergency and humanitarian assistance by the International Emergency Relief Team to

⁹1.Understanding disaster risk; 2.Strengthening disaster risk governance to manage disaster risk; 3. Investing in disaster reduction for resilience; and 4. Enhancing disaster preparedness for effective response, and to "Build Back Better" in recovery, rehabilitation and reconstruction.

development in order to improve Nepal's National Resilience. This project was in line with Japan's ODA policy.

3.1.2.2 Internal Coherence

Projects for the grant aid “ Program for Rehabilitation and Recovery from Nepal Earthquake” (2016-2019) were selected under Outcome 3 of this project, and the preliminary plan was prepared to expedite the implementation of the grant aid. Of the projects designed as grant aid projects in the preliminary plan, the areas that could not be included within the ceiling of the grant aid program budget were implemented as QIPs for the project. Specifically, among the five bridges along the Barhakilo-Barpak road, three bridges (Gatte, Rangrung, and Daraudi) near the epicenter of the earthquake (Barpak) were selected for grant aid, while the remaining two bridges (Khahare and Jhayalla) were implemented as QIP-25 and QIP-26 of this project. A part of the Chautara water transmission system construction project was also covered by the grant aid project, and the Majuwa water pipeline, which is part of the water pipeline system, was implemented as QIP-24 of the project. It is recognized that the implementation of the above, together with the grant aid project, resulted in the enhancement of effectiveness and impact on the target area. In particular, for the bridge construction, the Khahare and Jhayalla Khola bridges were targeted in the QIPs of this project, and bridges became usable at all river crossing points on the road between Barhakilo and Barpak, which was expected to have a significant impact on the areas along the road.

Furthermore, school and housing construction guidelines, design examples, etc. to support the “Emergency School Reconstruction Project” (signed in 2015) and the “Emergency Housing Reconstruction Project” (signed in 2015) were formulated in the Project's Outcome 2 and used as explanatory materials for technical assistance for this ODA loan. It can be said that the project contributed to the promotion and achievement of these projects whose implementation period overlaps with that of this project.

Analysis results of the technical cooperation “Project for Assessment of Earthquake Disaster Risk for the Kathmandu Valley” (2015-2018), which was being implemented during the same period, were reflected in the Kathmandu Valley Resilience Plan under Outcome 1. Thus Outcome 1 was achieved through collaboration with other technical cooperation.

3.1.2.3 External Coherence

As was anticipated at the time of planning, the World Bank (WB) provided housing reconstruction loans and the Asian Development Bank (ADB) school reconstruction loans, with JICA, WB, and ADB closely exchanging information and opinions on the formulation of guidelines for the earthquake-resistant construction of houses and schools as well as on the formulation of design and other materials for the construction of houses and schools. The

guidelines for earthquake-resistant construction prepared under this project were referred to by other projects supported by WB and ADB, and contributed greatly to their effective implementation.

Based on the above, the project is highly relevant since it was consistent with Nepal's development policy and development needs. It was also consistent with Japan's ODA policy, and synergy effects with other JICA projects and other donor projects were also confirmed. Therefore, its relevance and coherence are high.

3.2 Effectiveness and Impact¹⁰ (Rating:②)

3.2.1 Effectiveness

3.2.1.1 Achievement of Project Purpose by the End of Cooperation

No indicators were set for outcomes 1-4 of the project at the time of the ex-ante evaluation, and in the ex-post evaluation, the indicators shown in Table 1 were proposed and their achievement verified from those perspectives. As a result, it was found that all were achieved.

The project-specific results of the QIPs (24 projects) of Outcome 4 are shown in Attachment Table 1, and were selected based on the QIPs' formation policy: 1. Connect Japan's lessons and technologies to rehabilitation and recovery; 2. Contribute to the reconstruction of socially vulnerable groups; and 3. Rebuild stronger administrative and community facilities and strengthen disaster prevention capacity. Examining the implementation of each QIP, facilities such as community centers, hospitals, regional police stations, and local government offices were constructed to be more earthquake resistant than the pre-earthquake buildings. Bridges and the Majuwa water pipeline were designed to escape damaged by disaster. For the agriculture-related livelihood restoration QIPs, the selection of beneficiaries was conducted to include widowed female heads of households or Dalit¹¹ people, and those considered socially vulnerable were prioritized as targets. Therefore, each QIP appears to have contributed to any one of the formation policies 1-3 except for QIP-24's Majuwa headrace and QIP-22's seed storage facility, which had not been confirmed to be effective after completion at the time of final report of the project. Meanwhile, 10% of farming had already stopped for QIP-19 goat farming, and effectiveness was partial for QIP-22 seed production training. However, by the end of the project, effectiveness had been generally confirmed (see Attachment Table 1 for details).

¹⁰ When providing the sub-rating, Effectiveness and Impacts are to be considered together.

¹¹ The term "Dalit" refers to a group of people who are considered to be outcasts or untouchable in the caste system and are excluded from fair participation in society. In Nepal, the term "Dalit" is used to describe a group of people whose characteristics vary from region to region and are not uniform. For example, the degree of social participation varies from region to region.

Table 1: Achievement of Outcomes

Outcome	Indicators (suggestions at the time of ex-post evaluation)	Achievement
Outcome 1: Development of Kathmandu Valley Resilience Plan and the Grand Design for Rehabilitation and Recovery of Target Districts	Specific priority projects are proposed in the Kathmandu Resilience Plan and the Rehabilitation and Reconstruction Plan for Gorkha and Sindhupalchok districts.	<p>Achieved</p> <p>The Kathmandu Valley Resilience Plan and the Gorkha and Sindhupalchok District Rehabilitation and Recovery Plans, including specific priority project proposals, were developed and shared with the National Reconstruction Authority and the two district governments and municipal government officials within the two counties.</p> <p>The staff of the Survey Department, which served as a counterpart in the preparation of landslide hazard maps for the target area, said that they acquired knowledge through participation in workshops related to the preparation of such maps.</p>
Outcome 2: Promotion of dissemination of earthquake-resistant buildings and structures	<ul style="list-style-type: none"> • Guidelines for earthquake-resistant construction of houses and schools are established. • Measures to disseminate guidelines for earthquake-resistant buildings are implemented. 	<p>Achieved</p> <ul style="list-style-type: none"> • As seen through the project-related documents and interviews with JICA officials and Nepalese officials, a series of deliverables (guidelines for earthquake-resistant houses/schools, posters related to the dissemination of the guidelines, and minimal requirements) were compiled into a booklet and training materials, including a guidebook for masons and residents. • Curricula and teaching materials developed in this project were used to conduct training for residents and masons in the technical assistance for implementation of ODA loan projects “Emergency Reconstruction Assistance Project (Housing Project and School Project)”.
Outcome 3: Formation of Priority Reconstruction Projects (Grant Program)	<ul style="list-style-type: none"> • Priority rehabilitation projects are selected based on priority needs. • The selected priority rehabilitation projects are designed, and a preliminary cost estimate is made. 	<p>Achieved</p> <ul style="list-style-type: none"> • Three projects were selected as priority reconstruction projects: reconstruction of buildings at the National Bir Hospital and Paropakar Obstetrics and Gynecology Hospital in the capital, construction of a water pipeline to Chautara Municipality, and construction of bridges on the Barhakilo-Barpak road. • The project included a hospital and water pipeline system project, which were related to basic human needs, and the bridge project was crucial for access to the area needing support. The projects were selected in line with priority needs, and each project was designed, project cost estimated, and summaries provided in a preliminary report.
Outcome 4: Implementation of Priority Quick Impact Projects (QIPs)	<ul style="list-style-type: none"> • Plans for implementation of the QIP are developed. • At least five QIPs are implemented. 	<p>Achieved</p>

Outcome	Indicators (suggestions at the time of ex-post evaluation)	Achievement
		<ul style="list-style-type: none"> · 24 QIPs were selected and implementation plans were developed. At the time of selection, it is considered that the beneficiaries' requests were considered, while at the same time, those requiring rapid rehabilitation and those considered as highly contributing to women and socially vulnerable groups were selected. · The number of QIPs actually increased nearly five-fold to 24 from the planned minimum of five. Of these, the bridge project and the headrace improvement project were planned as grant aid project, but due to the cap on cooperation funds, they were implemented as QIPs.

Sources: JICA documents, interviews with relevant organizations and Japanese experts

The achievement of Outcomes 1-4 is considered to have facilitated rehabilitation and recovery from the earthquake disaster in the target areas in the following respects.

- Under Outcome 1, the Kathmandu Valley Resilience Plan and the Gorkha and Sindhupalchok District Rehabilitation and Reconstruction Plan were developed, which included an assessment of the damage in each target area and the priority areas for rehabilitation and reconstruction efforts, together with the positioning of the QIP in the plans. The plan was shared with various local government officials and other donors on the Nepalese side during the development process and this is considered to have contributed to the facilitation of rehabilitation and recovery. According to the consultant's final report, the plan was approved by the Sindhupalchok District Government in 2017 at the end of the plan development.
- Setting the minimum requirements and guidebooks that embodied the implementation of the earthquake-resistant building guidelines in Outcome 2 were utilized in the implementation of technical assistance for ODA loan projects implemented in parallel to this project which contributed to the promotion of the reconstruction projects of houses and schools. The guidebooks were also referred to, and highly appreciated by, the Nepalese counterparts and other donors including WB and ADB, which were aiding in their target areas. Therefore, it can be said that the project contributed to the promotion of rehabilitation and recovery in the target areas of the project and other areas.
- The selection of grant aid for Outcome 3 and a preliminary plan including the design and estimate for each project had been prepared by February 2016, and the program grant aid project was initiated. Construction of the projects were completed by May 2019 during the implementation of this project, which facilitated the rehabilitation and recovery of the target areas.

- Regarding the effectiveness of the implementation of the 24 QIPs in Outcome 4, except for two projects, the seed storage facility and the Majuwa water pipeline, where not much time has passed since project completion, effectiveness had generally been confirmed by the end of the project, and the rehabilitation and recovery of facilities and livelihoods in the target areas were promoted.

3.2.2 Impacts

3.2.2.1 Review and Resetting on Evaluation Indicators at the time of Ex-Ante Evaluation

The indicators in the ex-ante evaluation paper for this project were reviewed in accordance with the actual activity results after the time of the ex-ante evaluation and organized as shown in Table 2. Alternative indicators were reconsidered. The evaluation of technical cooperation for development planning will be conducted in accordance with the evaluation policy, which states that at the time of the ex-post evaluation, three years after the completion of the project¹², the main focus will be on monitoring the utilization of the proposed plans. Regarding the status of utilization of the developed plans, it was decided that verification would take place of whether or not the plans were approved, budgeted, and implemented, and for the earthquake resistant building guidelines, etc., whether the guidelines were referred to in the construction of houses and schools. As for QIPs, they can be broadly classified into two types: (1) facilities or infrastructure projects and (2) livelihood recovery projects (agriculture-related projects). The level of progress of each project by the end of the project differed, with some QIPs having achieved effectiveness and others not having reached that stage. Considering the contents of each QIP project and the level of progress, QIPs are evaluated from the viewpoint of the effects or impact expected at the time of the ex-post evaluation. (1) facility or infrastructure projects are evaluated and verified in terms of the realization and continuation of effects, and (2) livelihood restoration projects are verified from the point of view of whether or not the effects were observed corresponding to the inputs, and whether there were any points for improvement to enhance the effects.

¹² JICA, “FY2022 External Evaluation Reference,” p. 5 (Only in Japanese). For the Project, the rehabilitation and recovery plans for the two districts and the Kathmandu Valley Resilience Plan in Outcome 1 were completed in 2017, two years after the start of the Project (i.e., two years before the Project completion in 2019), so their subsequent utilization is not after the Project completion. The utilization of the plans is considered to start during the implementation of the Project.

Table 2: Indicators at the time of the Ex-ante Evaluation and Alternatives

Indicators at time of the ex-post evaluation (3 years after completion)	Utilization of the proposed plan after the end of cooperation and effect indicators of project implementation (alternatives at the time of ex-post evaluation)
<p>(1) Progress in utilization</p> <ul style="list-style-type: none"> · The Kathmandu Valley Resilience Plan and the Grand Design for Rehabilitation and Recovery of Target Districts formulated in this project will be approved as a policy of the Nepalese government. · The guidelines for earthquake resistant buildings were approved as guidelines by the Nepalese government. · Summary of QIPs to be implemented in this project are prepared. 	<p>【The status of utilization of established plans and guidelines for earthquake-resistant construction, etc. 】</p> <ul style="list-style-type: none"> · The Kathmandu Valley Resilience Plan was approved, budgeted, and implemented by the Nepalese government. · Rehabilitation and reconstruction plans for Gorkha and Sindhupalchok districts are approved, budgeted, and implemented. · Houses and schools will be constructed with reference to earthquake-resistant building guidelines, etc. (For the specific number of construction projects, indicators for the ODA loan projects “Emergency School Reconstruction Project” and “Emergency Housing Reconstruction Project” are shown as reference figures.) <p>【QIP Effects or Impacts】</p> <ul style="list-style-type: none"> · The effects of the QIP implementation are realized/sustained or the impacts are realized after QIPs is completed.(Among QIPs, evaluation is conducted on ① in case of facilities and infrastructures, realization and continuation of effects, ② in case of livelihood recovery, realization of effect to meet the inputs.) <p>(*The number of QIPs implemented was used as an outcome indicator.)</p>
<p>(2) Indicators of achievement targets through utilization</p> <ul style="list-style-type: none"> · Number of projects proposed and initiated under the Kathmandu Valley Resilience Plan and the Grand Design for Rehabilitation and Recovery of Target Districts. · The number of houses and schools constructed in accordance with the earthquake-resistant building guidelines (for the specific number, refer to the indicators proposed in the “Emergency School Reconstruction Project” and “Emergency Housing Reconstruction Project” to be implemented separately). · Number of QIPs to be implemented (5 at least). 	
<p>(3) Capacity development</p> <ul style="list-style-type: none"> · Number of participants in country-specific training programs or invited to Japan · Number of participants trained in earthquake-resistant housing construction 	<p>The number of participants in country-specific training programs or Japanese invitations is an input figure for the capacity-building indicator shown on the left. The number itself of participants in training courses on earthquake-resistant housing construction, is not exactly an indicator to show the effectiveness of capacity development.</p> <p>Although capacity development was presented as an indicator during the ex-ante evaluation, it was not set as an outcome of the project. Since many of the participants at that time could not be contacted during the ex-post-evaluation, this figure is given as reference for where opinions could be directly confirmed by those involved.</p>

Source: Ex-post evaluation indicators at the time of the ex-ante evaluation are from the project ex-ante evaluation paper.

3.2.2.2 Achievement of Project Purpose After the End of Cooperation

<Status of utilization of the Kathmandu Valley Resilience Plan and Gorkha and Sindhupalchok District Rehabilitation and Recovery Plans >

The Kathmandu Valley Resilience Plan has not been approved by the government¹³ as a separate volume of the Kathmandu Valley Strategic Plan as originally planned. The rehabilitation and recovery plans for Gorkha and Sindhupalchok districts were scheduled to be positioned as part of the Periodic District Development Plan, which is a statutory plan. However, the administrative structure was shifted to the federal system immediately after the completion of the planning for this project. Accordingly, the implementation of the plans then ceased as the budgetary authority for the Five-Year District Development Plan and Annual District Development Plan was shifted from the Districts to the Municipalities.

During the ex-post evaluation, it was confirmed that, due to the above-mentioned changes in the authority of the local government structure, the District Coordination Committees in Gorkha and Sindhupalchok Districts became in charge of coordination of the municipalities in the district only and staffing numbers decreased together with the reduction of authority. As a result of this neither of the district coordination committees was aware of the rehabilitation and recovery plans prepared by the Project, and no documents remained.

The description in the Final Report¹⁴ of the Project recognized that the budgetary authority of the District government would be discontinued in 2017, when the outputs of this project were handed over, and that each District recovery and reconstruction plan developed under the project would be distributed to each Municipality¹⁵ in the District. The project also conducted briefings on the contents of the plans. In the ex-post evaluation study, it was found that none of the heads or deputy heads of the 11 municipalities that conducted the QIPs knew if the recovery/restoration plans had been referred to afterwards. Indeed, none of them knew the existence of the rehabilitation/recovery plans and there were no evidence that they referred to the plans. The reason that they were unaware of the project's reconstruction/recovery plan was given to be because the head of each municipality had changed since the implementation of the project. The plans as project outputs were therefore not shared within the organization and were not referenced formally as a guideline.

<Utilization of Earthquake-resistant Building Guidelines, etc. >

This output of the project was utilized in technical assistance for the Emergency School Reconstruction Project (signed in 2015) and the Emergency Housing Reconstruction Project

¹³ Although the plan was considered to be referenced in a related JICA technical cooperation “The Project for Strengthening Disaster Risk Governance for Resilience in the Kathmandu Valley” (scheduled from 2021 to 2025), the project is not necessarily and entirely based on Kathmandu Valley Resilience Plan of the Project. Therefore, it is not evaluated that this project has made a progress in the utilization of the plan.

¹⁴ JICA Technical Cooperation “The Project on Rehabilitation and Recovery from Nepal Earthquake Final Report” (October 2017) Output1-Output 3. p.7-10, p7-12, p7-37.

¹⁵ Since March 2017, local administrative division in Nepal has consisted of Provinces, Districts included within the Provinces, Municipalities as local government authorities (depending on population size and other factors, there are metropolitan municipalities, sub-metropolitan municipalities, and rural municipalities) and Wards as the next administrative division. Under the wards, there are villages.

(signed in 2015), which were implemented in parallel with this project. In addition, utilization took place during implementation of the loan disbursement of these two projects. The review of earthquake-resistant building standards through this project component also led to the realization of the review of the Nepal Building Code (hereinafter referred to as “NBC”). As described above, the project made a large contribution to the promotion of disaster-resistant buildings in terms of the goals after completion of the cooperation.

< Effectiveness and Impact of QIPs >

The status at the time of the ex-post evaluation is shown in Attachment Table 1: QIPs Survey Results at the time of project completion and ex-post evaluation.

Reconstruction of public facilities such as community and women's training center related (QIP-01(02), QIP-01(04), QIP-02, QIP-13), local government (village development committee at the time of planning, administrative unit called “Ward” at the time of ex-post evaluation) offices (QIP-05, QIP-09, QIP-12, QIP-16, QIP-17), hospital (QIP-03), health post (QIP-14), police station (QIP-4), agricultural facilities (QIP-06, QIP-07), and disaster prevention park (QIP-27) contributed to the construction of more earthquake resistant and durable facilities and the rapid restoration of local community services. According to interviews with local government officials in the target areas in Nepal, two bridges (QIP-25 and QIP-26) are considered to have contributed to the revitalization of logistics and economic activities in the target areas. According to the target area's water use committee (formally known as the Jugal Thalkhola Drinking Water User and Sanitation Committee, hereinafter referred to as “WUC”), the Majuwa pipeline (headrace) (QIP-24) was constructed without the agreement of WUC for the planned pipeline route, and after its completion, the WUC rerouted and re-laid the Majuwa pipeline with its own funds.¹⁶ The ex-post evaluation survey confirmed that the water supply had been secured and was effective from after the re-laying until the time of the ex-post evaluation.

The QIPs related to livelihood restoration in the agricultural sector include projects whose sustainability has been declining since the end of the project. On this point, however, given that the technical guidance training for the participants in these QIPs was provided only once, or for only one year, and that the inputs (fertilizer and other inputs) for each QIP were provided only once at the beginning of the project, the sustainability of the effect of the plan was limited in the plan itself. While the QIP-20 Vegetable Cultivation project had a relatively rapid and sustained effect even after training only once, the QIP-21 Maize Production Improvement and QIP-22

¹⁶ This is due to reasons such as the inability to secure sufficient water volume with the water pipe route planned in this QIP. For details, please refer to the FY2022 External Ex-post Evaluation of Grant Aid “Program for Rehabilitation and Recovery from Nepal Earthquake” which was conducted simultaneously with this ex-post evaluation. It has not been verified which has a larger volume of water, the QIP plan of this project or the water pipe rerouted by WUC.

Quality Seed Production Improvement projects required several years of technical guidance and support to achieve a certain level of sustainable results.

Among the QIPs related to livelihood restoration, qualitative research was conducted on the formation of women's cooperatives in QIP-18, goat farming for targeted women in QIP-19, and a project to improve vegetable production techniques for women in QIP-20, which targeted women and aimed to benefit them. Results showed that the projects had a certain level of benefit effects for women (refer to the column for details). However, as for the support for goat farming, out of 78 cases supported, 6 had closed down at the end of this QIP, and the number had increased to at least 16 by the time of the ex-post evaluation. All Dalit women who participated in the QIP activities are included in these cases. As with the QIP-21 Improving Maize Production and QIP-22 Improving Quality Seed Production projects, the duration of support and inputs for QIP-19 Goat farming were limited in order to obtain higher effects or a more fixed effect. In particular, more careful and continuous support was needed for a certain period of time, especially for target people who were not accustomed to goat farming.

Table 3: Achievement of Project Purpose after the End of the Cooperation

After the end of the cooperation Achievement Targets	Indicators (suggestions at the time of the ex-post evaluation)	Achievement
Contribute to the formation of a more disaster resilient nation and society in Kathmandu and the Districts.	<p><Status of utilization of the Kathmandu Valley Resilience Plan and the Rehabilitation and Reconstruction Plan of the two provincial counties></p> <ul style="list-style-type: none"> ·The Kathmandu Resilience Plan was approved, budgeted, and implemented by the Nepalese government. ·Rehabilitation and reconstruction plans for Gorkha and Sindhupalchok districts are approved, budgeted, and implemented. 	<p>Not achieved</p> <ul style="list-style-type: none"> ·The “Kathmandu Valley Resilience Plan” has not been approved as a government plan. The project's Final Report indicated that it was planned that it would be a separate volume of the “Kathmandu Valley Strategic Plan”. However, that strategic plan itself has not been approved by the government. ·As for the rehabilitation and recovery plans for the two districts, for Sindhupalchok District, the plan was approved at the time of completion of the plan, however, no approval has been confirmed for Gorkha District. In any case, as the authority for the development budget was transferred from the District to Municipalities in both of the two Districts with the transition to the federal system. After the plan was prepared, its position as a public plan on the part of the Nepalese government in the initial plan became unclear, and it was not used as a public plan.
	<p><Use of earthquake-resistant building guidelines and resources></p> <ul style="list-style-type: none"> ·Houses and schools are constructed with reference to earthquake-resistant building guidelines, etc. 	<p>Achieved</p> <ul style="list-style-type: none"> ·The use of the earthquake-resistant building guidelines had a high impact, as it was referenced in the parallel implementation of technical assistance for ODA loan projects and other donor loans, and also led to a review of Nepal's national building standards. The number of houses constructed under the “Emergency Housing Reconstruction Project” was 87.9% for

		recipients who received housing reconstruction funds and 85,005 for recipients who received full housing reconstruction funds. Under the “Emergency School Reconstruction Project”, 274 elementary, junior high, and high schools were constructed.
	<Effect and Impact of QIPs ·Effect and sustained effects or impact of QIP implementation after its completion.	Partially achieved ·At the time of the post-evaluation, there were 5 cases out of the total of 24 projects that had not been used (some of the QIP-22 seed storage facilities), and others that had not shown any effect or continuation of effects.

Source: JICA documents, interviews with relevant organizations, interviews with Japanese experts

Achievement of purpose after the end of cooperation is summarized in Table 3. As described above, the Project is considered to have contributed to a certain extent to the formation of a more disaster-resistant nation and society in Kathmandu and the districts through the use of the earthquake-resistant building guidelines and the implementation of QIPs. However, the achievement of the purpose of the project after the end of the cooperation is evaluated as being rather limited, because the plans developed by the project were not utilized as government plans due to unclear positioning, and there were some issues in the implementation of some of the QIPs, that is, there are not sufficient effects considering the inputs. These points are considered as important in evaluation.

3.2.2.3 Other Positive and Negative Impacts

(1) Impacts on the Environment

This project was considered to fall under Category B of the “JICA Guidelines for Environmental and Social Considerations” (formulated in April 2010), as it was judged that the undesirable effects on the environment were not significant in light of the characteristics of the sector, project and region. In addition, due to the high urgency of this project, some procedures of the JICA Guidelines for Environmental and Social Considerations - in Section 3.4.1 (Review Stage of Proposed Projects) and Section 3.4.2 (Detailed Plan Preparatory Study Stage) were skipped and necessary environment and social consideration procedure was to be conducted upon full-scale survey.¹⁷ Based on the review of the existing documents and hearing from person in charge in implementation agency, in the implementation of the QIPs, no negative impacts on the natural and social environment were reported upon full-scale survey¹⁸ and after

¹⁷Document of the 60th Meeting of the JICA Advisory Committee on Environmental and Social Considerations, p.2, URL address https://www.jica.go.jp/Resource/environment/advice/ku57pq0000ngjcu-att/advice60_data.pdf (Accessed December 14, 2023)

¹⁸ “JICA Environment and Social Consideration Guidelines Review Survey Final Report” p.4-5, URL address: https://www.jica.go.jp/Resource/environment/guideline/ku57pq00002izi45-att/final_report.pdf (Accessed December 26, 2023)

completion¹⁹, and also complaints from the local residents were not confirmed. As for the bridge project, the results of the Initial Environment Examination (IEE) and the interview with the director of the road department project office in the target area showed that no serious impacts on the natural and social environment had been found during the construction period and up to the present.

(2) Resettlement and Land Acquisition

There were no projects that required the relocation of residents. As for QIPs, no particular problems were reported. In reviewing existing documents, no land acquisition of private property occurred.

(3) Gender equality, Marginalized People, Social Systems and Norms, Human Well-being and Human Rights

In the QIPs, there were projects implemented that included those connected with gender, people who are inhibited from equitable social participation, and support for social systems and norms. In particular, the QIP targeting women, contributed to women's empowerment and showed an impact (refer to the column for details). Interviews with JICA officials in charge of project implementation at the time confirmed that they had encouraged the inclusion of Dalit women among the beneficiaries. In the project completion report of Good Neighbors, the NGO in charge of implementation, the criteria for selecting the participants for each project were set as female heads of households, Dalits, and low-income groups, all attempts were made to include these people. Interviews with women association managers in Barpak indicated that they basically made sure that those who wanted to participate were given a fair opportunity to do so. The results of interviews with Dalit people also indicated that they felt that the benefits of the QIPs were fairly distributed. From these circumstances, it was recognized that the project promoted the equitable participation of various ethnic and social groups, and that there were benefits. On the other hand, there were areas for further improvement in the implementation of the projects. In order to make the project more effective for Dalit and other groups, it was considered necessary to provide more tailored support to target groups based on their means of livelihood, the characteristics of their lives, their educational level, and other factors.

For the formation of the women's association in QIP-18, JICA gender advisors were dispatched from the early stages of the project formation to conduct a survey of the current situation, gather

¹⁹ National Reconstruction Authority “Confirmation letter on the Environmental and Social Impact of the Project on Rehabilitation and Recovery from Nepal Earthquake”, URL address: https://www.jica.go.jp/Resource/english/our_work/social_environmental/id/asia/south/nepal/c8h0vm0000bh46ou-att/c8h0vm0000f60sd7.pdf (Accessed December 26, 2023)

information from the relevant ministries and agencies, and strengthen it in line with the existing system in BALPAC. Therefore, unlike in other regions, one aspect of the project that contributed to enhancing its impact and sustainability was the support for goat farming by women in QIP-19 and the improvement of vegetable production skills for women in QIP-20 through the women's association.

Column: Results of Qualitative Research on QIP for Women: Leave No One Behind (LNOB)

To determine whether or not the implementation of QIPs contributed to the recovery of women, the poor, and others who are prevented from participating in society fairly from the perspective of “Leave No One Behind (LNOB)”, qualitative evaluation was conducted through detailed analysis of QIP-18 “Formation of Women's Association” targeting women, QIP-19 “Goat Farming for Women”, and QIP-20 “Improvement of Vegetable Production Techniques for Women” by interviewing the people involved in these projects.

1. Interview targets and methods

- ① Beneficiaries: 11 participants from each QIP in and around the center of Barpak, Gorkha District, including 4 Dalit persons, selected based on caste and ethnicity, etc., 6 participants from Sindhupalchok District.
- ② Three members of the Women's Association Representative Committee, including a Dalit representative
- ③ Representatives of key informants related to Gorkha and Sindhupalchok district government offices (Districts, Municipalities, Ward, an administrative division under Municipality, which includes the areas covered by the QIP)
- ④ Representative of the NGO Good Neighbors (head office in South Korea) in charge of QIPs implementation

①, ②, and ④ were conducted as individual interviews, while ③ was a group interview with several Ward government officials.

2. Main questions

- Outcomes of QIP implementation (from the time of completion to the time of the post-evaluation)
- Results of awareness workshops and training by women's association
- Other findings (e.g., were benefits fairly distributed?)




QIP-19 Goat Farming

(Source: External evaluator's photo)

3. Survey Results

In the results of interviews ① through ④, common issues were that the respondents said that the effectiveness of women's empowerment in supporting the strengthening of women's association in Barpak and the effectiveness of supporting vegetable cultivation were highly evaluated and benefits were equitably distributed. On the other hand, the effectiveness and continued activities of goat farming were rather limited.

Based on the results of the interviews, from the perspective of gender and LNOB, it was considered that the formation of the QIP-18 women's association created groundwork for women from various social class to participate and discuss together, and that the approach of providing support through the women's association may have been effective. In interviews, all Dalit women commented on the benefits of joining the women's association, being able to express their opinions more clearly after participating in the workshops, gaining knowledge on household budget management such as how to save, and how to borrow money. All of the Dalit women also stated that the benefits of the project were fairly distributed.

	<p>In terms of individual projects, QIP-19 had an impact on the empowerment of women. However, in some cases the goats died before they give birth, while in others a certain effect was observed after they were successfully raised and sold. During the interviews at the time of the ex-post evaluation, it appeared that careful support may have been necessary, especially for those who had no experience in goat farming. In general, the illiteracy rate among Dalit women tends to be high, and thus hands-on support is more important than the preparation of manuals.</p>
<p>QIP-20 Improvement of Vegetable Production Technology (beneficiary in the center of Balpak) (Source: External evaluator's photo)</p>	<p>Many cases of the QIP-20 projects to improve vegetable production technologies were effective overall, and effectiveness was still continuing at the time of the ex- post evaluation. However, in the case of Dalit women, most were not interested in growing vegetables in the vicinity of their houses and therefore they were not included in the beneficiary list. These women exclusively cultivated maize and other grains on their rented land.</p>

Purpose by the end of cooperation was generally achieved, however, as for purpose after the end of the project, the official status of the plans was unclear and it did not lead necessarily to utilization and the effectiveness and impact of a part of the QIPs such as maize cultivation and seed storage facilities were somewhat insufficient compared with the inputs, although some effects were observed partially. Evaluation on this issue was placed importance, thus the effectiveness and impact are moderately low.

3.3 Efficiency (Rating: ③)

The fast-track system was applied to this project because of the urgent need for reconstruction and recovery after the disaster, the project being launched three months after the earthquake. It was anticipated from the beginning that the project cost and project period at the time of the ex-ante evaluation would be reviewed at a time when the contents of the QIPs were determined. At the outset of the project, there was no counterpart in the central government of Nepal that was a specialized agency for rehabilitation and recovery, and the project started with the National Planning Commission as the implementing agency. However, after the establishment of the NRA in December 2015, the NRA was added as the counterpart for the project. In the original plan, the QIP plan had not been decided, and the selection of QIPs and the formulation of the plan were included in the Project's activities; in April 2017, the Record of Discussion (hereinafter referred to as "R/D") was revised, and at that stage, the project period was extended and the man-months (MM) work process volume significantly revised. Therefore, a comparison with the revised R/D is deemed appropriate for the project cost and project period. However, since the project cost at the time of the R/D revision could not be confirmed, the project cost at the start of the project was used as the plan, and although it was difficult to conduct a rigorous analysis to determine whether the increased project cost is commensurate with the increased

output, and therefore the outcome to promote rehabilitation and recovery, the evaluation was made to the extent that was possible using existing information.

3.3.1 Inputs

3.3.1.1 Elements of Inputs

During the implementation of this project, the R/D was revised in 2017 when the contents of the QIP plan were clarified. There were additional man-months (MM) due to an increase in the number of work days, resulting in more than double compared to the plan and nearly doubling the total number of experts dispatched. Initially, the minimum number of QIPs was set at 5, but this number was increased to 24, more than four times that number. The input of man-months (MM) by outcome in Table 5 also shows a significant increase in the input of QIPs for Outcome 4, and the overall increase is considered to have been mainly due to the increased workload of the QIPs.

Table 4: Inputs of the Project

Inputs		Original plan (2015)	Actual (at the time of project completion)
Japanese input	Experts	54 persons, 150 MM	Total 95 persons, 344.69 MM
	Trainees received	30 people (Invited by Japan, 10 persons x 3 times)	35 persons (5 training sessions in Japan)
	Total project cost on the Japanese side	Approx. 1.5 billion yen	Approx. 2.23 billion yen
Input on Nepal side*		Counterpart Assignment Project Team Office	Counterpart Assignment Project Team Office

Source: Location: Initial plan is based on the project's ex-ante evaluation paper, actual results are based on JICA documents, and documents provided by the implementing consultant.

Note: *There were no documents available to confirm the planned and actual project cost on the side of the partner country.

Table 5: Workload of short-term specialists

Unit: ma MM

Item	Original plan (July 2015)	Actual (at the time of project completion)*
Output 1	76.57	88.08
Output 2	17.34	35.06
Output 3	26.38	59.53
Output 4	28.81	162.02
total amount	149.10	344.69

Source: Initial plan was calculated by the evaluator based on MM by outputs at the time of the work implementation plan from JICA documents. Actual results are based on JICA data and data provided by the implementing consultant.

Note: *MM that do not strictly fall into each outcome category, such as leader MM, are assigned to each outcome for the sake of convenience.

The MM of 150MM in the project ex-ante evaluation paper and the MM in the consultant work implementation plan differ slightly in decimal places.

3.3.1.2 Project Cost

As mentioned at the beginning of the Efficiency section, it was considered appropriate to compare the project cost at the time of the R/D revision with the actual project cost. However, the project cost at the time of the R/D revision could not be verified and therefore could not be compared. The total project cost for Japan was approximately 1.5 billion yen in the original plan, while the actual cost was 2.23 billion yen, or about 149% of the plan. However, as already mentioned in the elements of inputs, the increase in QIPs mainly led to an increase in man-months (MM) of about 230% over the plan, which is the reason for the large increase in project cost. Although the increase in man-months (MM) and the increase in project cost cannot be simply compared by examining at the respective figures, the increase in project cost is fully commensurate with the increase in QIPs, i.e., the construction of public facilities that are more earthquake resistant than before the earthquake and the increase in the number of outputs such as livelihood recovery. Although the project cost exceeded the original plan, the increase in project cost was evaluated to be linked to outcomes that promote rehabilitation and recovery from the earthquake.

3.3.1.3 Project Period

Regarding the project period, the original R/D plan was from July 2015 to June 2017 (24 months), however, the revised R/D (April 2017) was from July 2015 to December 2019 (54 months), and the actual results were from July 2015 to December 2019 (54 months) within the schedule in the revised R/D. The project period was therefore in line with the plan.

As mentioned above, although project cost exceeded the original plan, it corresponded with the increase in output, and the project period was within the plan of the revised R/D. Therefore, the efficiency of the project is high.

3.4 Sustainability (Rating: ②)

3.4.1 Policy and System

The promotion of the BBB concept and strengthening of disaster risk management in the 15th Development Plan (2019/20-2023/24), mentioned in the adequacy section, was still within the plan's coverage period at the time of the ex-post evaluation and still being continuing. BBB is also addressed as one of the priority areas in the Disaster Risk Reduction and Management Action Plan (2018-2030).

On the other hand, during the implementation of this project, there was a major institutional reform in 2017, when the administrative structure of the government shifted to a federal system, which significantly changed the budgetary authority of the local governments. As described in <The status of utilization of the Kathmandu Valley Resilience Plan and Rehabilitation and

Reconstruction Plans of Two Districts > in “Table 3: Achievement of Purpose after the End of the Cooperation”, the Kathmandu Valley Resilience Plan and the rehabilitation and reconstruction plans for Gorkha and Sindhupalchok districts were not incorporated into the plans of the Kathmandu Valley Development Authority and respective district governments, as had originally been planned for the implementation of each plan.

As for the earthquake-resistant building guidelines, the review of the INBC105 law and regulations, a seismic resistance standard initiated by this project, led to the revision of the standard in August 2020.

As described above, it can be said that although the project is highly sustainable in terms of policy and in terms of the legal system of seismic standards, it is not sustainable in terms of the institutional system that allows the continuation of the plans developed under the project.

3.4.2 Institutional/Organizational Aspect

The NRA was dissolved at the end of 2021, and the task of disaster response was taken over by the National Disaster Management Agency (NDRRMA), which had been established at the end of 2019. However, the National Disaster Management Agency was not staffed by former NRA employees, and almost none of them had been involved in the implementation of this project. Therefore, there was no continuity from the Project activities in the counterpart staff working in the organization. As mentioned in “3.4.1 Policy and System”, with the transition to a federal system, the implementation of the rehabilitation and recovery plan for the two districts became the responsibility of each municipality within the district, and the municipalities did not have a system to take over and implement the Project plan.

At the time of the ex-post evaluation, the organization in charge of the earthquake-resistant building guidelines was the Ministry of Urban Development, Department of Urban Development and Housing and Building, and the results of this project continued to be referenced.

Operation and maintenance of the facilities reconstructed under the QIPs is basically the responsibility of each local government where the facilities are located. On visiting each facility, it was found that maintenance and management personnel had been secured and were properly implemented. In the case of the municipality hospital and health post, the Ministry of Health also monitors operations. For the bridges, the Department of the Road is in charge of operation and maintenance, and for the Majuwa water pipeline, the Water Users Committee (WUC) of the target area is in charge of operation and maintenance.²⁰ For each QIP, it was confirmed through interviews with relevant organizations whether or not the personnel for operation and

²⁰ For details on the organizational structure, technical and financial aspects of the targeted road bridges and the water pipeline in Chautara, please refer to the External Ex-post Evaluation for FY2022 Grant Aid “ Program for Rehabilitation and Recovery from Nepal Earthquake” conducted concurrently with this ex-post evaluation.

maintenance management had been allocated, that the implementation system is in place for appropriate maintenance management.

For QIPs related to livelihood restoration, it was assumed that the District Agriculture Development Office (DADO) of the Ministry of Agriculture would support the project after project implementation for the quality seed production project and the maize production project, and that the training of target DADO staff would be included in the training program. However, after the completion of these QIPs (2017-2018), the Ministry of Agriculture abolished the DADO, which resulted in no organizational structure for the support of these quality seed production and maize production projects. Regarding the management of women's cooperative activities, it was confirmed that the organizational structure remains in place, with management by personnel selected from local community participants.

To sum up, it can be said that the organizational and institutional sustainability of the effects related to the QIPs of many of the facilities and much of the infrastructure constructed under the project and of women's cooperative activities is high, while the organizational and institutional sustainability of the effects related to the QIPs of agricultural-related projects, on which DADO's activities were based, was lost.

3.4.3 Technical Aspect

For the Kathmandu Valley Resilience Plan and the Rehabilitation and Recovery Plan for the two districts, the main implementation entity became the municipalities, not the districts as originally envisioned. The capacity of the municipalities to budget and implement the plan cannot be described at this moment. However, the technical cooperation “The Project for Strengthening Disaster Risk Governance for Resilience in the Kathmandu Valley” (2021-2025), which started after the completion of this project, is currently providing support for the promotion of disaster management activities in the Kathmandu Valley with the National Disaster Management Agency as the main counterpart. In addition, under the technical cooperation “The Project on Participatory Rural Recovery” (2019-2023), support has been provided for the preparation and implementation of the plans including reconstruction following the earthquake disaster in four local government areas in the Gorkha and Sindhupalchok districts targeted by this project. As mentioned above, technical assistance for the implementation of the plans developed in this project is still being provided in some areas in subsequent JICA projects.

Since facility-related maintenance does not require very advanced technology, there are no technical issues for the sustainability of the effects. The results of the field survey did not reveal any operation and maintenance technical issues that would hinder the sustainability of the effectiveness of the infrastructure related to the bridges and water pipe.

Regarding support for continuing the implementation of QIPs related to livelihood recovery, the technical effectiveness of the project declined in the quality seed production and maize

production projects where DADO technical assistance had been expected, except in cases where farmers voluntarily established a system through local farmers' cooperatives. In the case of vegetable farming, it was evident that farmers continued to apply the knowledge they had received from the training. However, in the case of goat farming, the period of time and inputs supported by the project were limited, and in the absence of continuous support through technical extension workers, there were some cases where the farming techniques did not take root sufficiently among the participants. Even though considering that the main focus of the project was emergency recovery and that the period of support was not long, it can be said that it was relatively limited compared to the expected continuation of the technical effects.

To sum up, while the technical aspects of the effects of many utilities and infrastructure-related QIPs are sustainable, the sustainability of the effects of agriculture-related facilities and projects have some issues and is limited.

3.4.4 Financial Aspect

Since written financial data was not available for QIPs other than for the bridges and water pipe, the following analysis is based on interview information.

Most of the QIPs in public facilities are under the jurisdiction of local governments, etc., and budgets for operation and maintenance are allocated for them. Some community centers charge a fee for the use of their facilities, and the revenue is used for the operation and maintenance budget.

The maintenance budget for bridges is allocated by the Department of Road on an as-needed basis, and data confirmed that maintenance of the bridges on the target roads is being carried out. For the water pipe, it was confirmed that the budget allowance for operation and maintenance is made from the water rate revenues of WUC etc., and that maintenance works that involve civil works are also operated and maintained with contributions from agencies such as the Water and Sewerage Management Bureau of the federal government's Department of Water Supply and state government water agencies, depending on the situation.

For agriculture-related QIPs, other than vegetable farming targeting women, it was observed that local governments do not have a budget that can adequately allocate technical extension staff who can support the continuation of project effectiveness, and that some seed storage facilities need to be repaired due to flood damage. It was observed that there is no budget for this.

In the case of the women's cooperative, operating costs consist of participation fees and investments in the cooperative by its members. To date, the number of members has increased, operating expenses and the amount of loans to members have increased. Problems in financial sustainability have not been observed.

As described above, there is financial sustainability of the effects of many public facilities and infrastructure-related projects, and the women's cooperatives. However, the financial sustainability of the effects of agriculture-related facilities and projects is limited.

3.4.5 Environmental and Social Aspect

No particular description was identified in the existing documents. No particular concerns were noted in the post-evaluation survey.

3.4.6 Preventative Measures to Risks

No particular description in the existing documents. No particular concerns were noted in the ex-post evaluation survey.

3.4.7 Status of Operation and Maintenance

Regarding QIPs related to public facilities, no operation and maintenance issues affecting sustainability were identified for local government offices, community centers, police stations, hospitals, or other buildings. On the other hand, for QIP-22, seed storage facilities, there were two locations that had not achieved their initial intended effect after completion, and the Women's Interaction and Training Center in Sindhupalchok District in QIP-2 was being used as staff quarters which was not its intended original purpose. There were some cases where goats had died and farming stopped. There were also cases where the QIP-21 improvement of maize production was not sufficiently effective. Regarding these cases, there was a lack of financial and technical support systems until sufficient effects had been produced. The unused seed storage facilities were also damaged by flooding and need to be repaired. None of these issues were expected to be resolved as of the time of the ex-post evaluation.

For the QIPs of the bridges, although some rehabilitation work is required for the gabions and embankment to protect the main structure of the bridges, this will not affect the sustainability of the project effects.

Based on the above, the effects of the Project are expected to be sustained in the case of the earthquake-resistant building guidelines and public facilities including local government offices, police stations, community centers, hospitals, and health centers, as well as QIPs for bridges and water pipelines. On the other hand, in the Kathmandu Valley Resilience Plan, the Rehabilitation and Recovery Plans for Gorkha and Sindhupalchok districts, and QIPs related to agriculture aimed at recovery of livelihoods, there have been some minor issues in terms of the institutional/organizational, technical and financial aspects for some participants in goat farming, and in the improvement of maize production, seed conservation facilities, and seed conservation

techniques in some areas. It is not expected that these will be resolved/improved. Therefore, sustainability of the project effects is moderately low.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

The project aimed to promote rehabilitation and recovery in the target areas in the Kathmandu Valley, Gorkha District, and Sindhupalchok District, which were affected by the April 2015 Nepal Earthquake, through ① development of a Kathmandu Valley Resilience Plan and District Rehabilitation and Recovery Plans, ② promotion of the dissemination of earthquake-resistant buildings and structures, ③ formulation of priority recovery projects (grant program), and ④ implementation of priority QIPs, thereby contributing to the development of a more disaster-resistant nation and society, particularly in the target areas. This project was consistent with Nepal's development policy, the development needs of Nepal's earthquake rehabilitation and recovery, and Japan's ODA policy. In addition, there was both internal and external coherence: activities were carried out in collaboration with related JICA technical cooperation and grant aid, and the formulation of earthquake-resistant building guidelines contributed to the World Bank and Asian Development Bank's housing and school construction loans. The outputs of these projects were obtained and synergy effects with inside and outside projects of JICA were verified; thus, relevancy and coherence are high. By the end of cooperation through the project the outcomes had generally been achieved, with no negative impact. The project is considered to have had an impact on gender perspectives and on people whose equitable participation in society has been impeded. In terms of achievement of the overall goal after project completion, there was ② a promotion of use of guidelines for earthquake-resistant buildings and structures. However, ① the plans developed were not linked to utilization, and ③ it cannot be said that, as a part of livelihood recovery, QIPs had sufficient effect to commensurate with the inputs. Thus, effectiveness and impact are moderately low. Although project cost exceeded the original plan, it corresponded with the increase in output, and the project period was within the plan of the revised R/D. Therefore, the efficiency of the project is high. Sustainability of the effects of the Project is expected for the continued use of the earthquake resistant building guidelines, the related materials and QIPs related to public facilities and infrastructure. However, regarding the Kathmandu Resilience Plan developed by the Project, rehabilitation and recovery plans for Gorkha and Sindhupalchok districts, wherein agriculture related QIPs aimed at restoring livelihoods and seed storage facilities, etc., some minor issues were observed in terms of the organizational, technical, and financial aspects and the continuation of the effect by the project was more limited than originally expected. These issues are not expected to be improved/resolved. Therefore, the sustainability of the project effects is moderately low.

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

4.2 Recommendations

4.2.1 Recommendations to the Implementing Agency

None

4.2.2 Recommendations to JICA

None

4.3 Lessons Learned

1) Support in line with the type of disaster and the capacity of the target country's administrative structure

In disaster recovery and reconstruction assistance, the method of preparing rehabilitation and recovery plans, formulating grant aid program assistance, and implementing priority QIPs in a development planning technical cooperation project, and, in parallel, implementing projects formed through this technical cooperation in grant aid program assistance, was used in the emergency rehabilitation and recovery assistance following the Typhoon Yolanda disaster in the Philippines. While the Philippines experience was helpful in some points, such as in the way projects were selected, there were two major differences. In planning for future earthquake disaster rehabilitation and recovery, it is important to fully consider the following two points at the planning stage, taking into account the existing systems in, and capacities of, the target countries, in order to ensure the effectiveness and its continuation.

The first point is the difference in capacity of the administrative structures in the Philippines and Nepal. Nepal's administrative structure had historically been unstable and had limited capacity. In addition, it was a time when the country was moving toward the promulgation of a new constitution, which included a reorganization of the administrative structure. The new constitution was promulgated in September 2015, so the possibility of a reorganization of the administrative structure had been foreseeable immediately after the start of this project. In addition, whereas in the Philippines it was possible to prepare rehabilitation and recovery plans in accordance with existing comprehensive land use plans, in the case of Nepal there was no such established existing planning system. Furthermore, there was no existing coordination between the central and local governments, as there had been in the Philippines, in terms of disaster recovery and reconstruction systems. Although the project was premised on a district development plan, the possibility of a change to district government-led implementation could have been considered at an early stage at the start of the project. External factors that have a high risk of occurring, such as the reorganization of administrative structures, should be taken into account in the project as early as possible, either during project planning or after the start of the project, and activities should be reviewed as appropriate to the situation.

In cases where the local government structure of the implementing entity of the rehabilitation and recovery plan is weak, or the implementing entity itself can be unclear, for the time being, damage assessment and the preparation of the policy paper for the recovery and restoration plan, which are usually included in the planning process, could be considered as outputs. Once the NRA was established in December 2015 after this project started, reexamination could have taken place as to how district rehabilitation and recovery planning should be placed within the central government, and the direction and activity plan for Output 1 could have been revised significantly in the first year of the project. In a country like Nepal, where the rehabilitation and recovery system from disasters was not well-functioning and the administrative structure was weak, it is important that the recovery and reconstruction plan for the target areas is positioned within the central government, with a view to promoting a central government-led system first.

The second point is the difference between typhoon damage and massive earthquake damage. In the case of Typhoon Yolanda, although the area affected by the strong winds was extensive, the extent of the extensive damage was limited to coastal areas, and the scope of reconstruction assistance was relatively clear. On the other hand, in the case of Nepal, the earthquake damage was extensive and severe, and many of the areas were inaccessible, requiring a long period of time for rehabilitation and recovery. In addition, extensive assistance was provided from the objectives of BBB, including a review of the earthquake-resistant building code system. Therefore, it is important to keep in mind that the contents of recovery/reconstruction plans and the period of support may differ depending on the type of disaster.

Considering the above two points, if the target countries have weak administrative structures and the disaster recovery support is expected to cover a wide range of areas, it would have been possible to first send a wide range of experts, including consultants, to target countries to develop recovery support in the first phase of a fast-track project, and then to implement the plan developed in the second phase.

2) Selection and implementation management of priority QIPs for livelihood recovery

Based on requests from the target areas, agriculture-related QIPs were implemented as QIPs for livelihood restoration, and it can be said that the projects were effective for vegetable farming, which is relatively easy to effect in a short period of time. On the other hand, other projects such as those for goat farming, the production of quality seeds, and the improvement of maize production would be less effective if support was not continued for at least three years, and if the status of the trainees was not monitored, the implementation methods reviewed, and follow-up for a certain period was also included in the plan. If agricultural livelihood restoration projects were to be included in the QIPs at the time of project formation, it would be better to focus on projects that are expected to have a quick impact, or to plan for a longer support period

from the beginning and divide the project into phases, evaluating each phase and implementing it step by step.

3) Formation of livelihood recovery QIPs that encourage broad social participation

In this project, from the early stages of project formation, JICA's team worked to formulate projects from a gender perspective, and collected information not only from local government agencies but also from the relevant ministries and agencies (Ministry of Women, Children and Senior Citizens, etc.). As a result, in Barbak, a project targeting women was implemented as well as the strengthening of the formation of women's cooperatives. This has contributed to the participation of women of various social statuses as well as to women's empowerment, which in turn contributed to promoting the effectiveness of the livelihood restoration project. In order to formulate projects that promote broad-based social participation, it is important to collect information from a wide range of relevant government and private organizations from the initial stages of project formation, and to formulate livelihood restoration projects in line with the existing organizational and social systems in the target country, combined with a strengthening of the organizational systems in the target region, which may be the key to enhancing the effectiveness of the project.

5. Non-score Criteria

5.1 Performance

5.1.1 Objective Perspective

JICA has been conducting earthquake risk assessment and disaster preparedness studies in the Kathmandu Valley of Nepal since the early 2000s, and was in the process of launching a project on earthquake disaster risk assessment in the Kathmandu Valley just before the Nepal earthquake in April 2015. Therefore, it can be considered that Japan was able to contribute to the risk assessment of the Kathmandu Valley ahead of other donors.

The concept of BBB proposed by the Japanese government in the “Sendai Disaster Reduction Cooperation Initiative” includes not only infrastructure but also economic recovery, and this was reflected in the livelihood improvement support of this project, which was effective in some respects. While there are points that need to be improved in the future, this was a significant example of an early adoption of the BBB concept of economic recovery to improve livelihoods as part of reconstruction assistance.

5.1.2 Subjective Perspectives (retrospective)

In order to make use of Japan's long-standing knowledge and technical expertise in earthquake-resistant construction, a support committee for building standards in Japan was formed to formulate guidelines for earthquake-resistant construction, with the support of

domestic experts, while Nepal's building standards were reviewed and discussion took place about various aspects of what kind of housing and school construction should be promoted.

Housing in Nepal consists of reinforced concrete apartment buildings, frame masonry (masonry walls are built first and RC frames are cast later) and unreinforced masonry (masonry consists of locally available materials such as fired bricks, stones (schist), sun-dried bricks, and concrete blocks, and joint materials are cement mortar and mud mortar). Since the most construction in rural areas is non-engineered construction, which is construction by local masons or residents themselves without the involvement of engineers, locally available materials and construction methods that local residents and masons can understand and respond to are required, and it was necessary to meet such needs.

It is noteworthy that a highly feasible proposal that considers local building methods and locally available materials and people's needs, while using Japanese expertise in earthquake-resistant building technology was made after repeated exchanges of opinions with various stakeholders, including the Nepalese government agencies, other donor agencies, and NGOs. Specifically, the project proposed a policy based on the concept of Minimum Requirement, and the project specifically showcased houses and schools with higher earthquake resistance. Drawings and guidebooks were prepared in an ingenious manner, thereby contributing to the promotion of understanding of earthquake-resistant architecture among the people concerned.

In this process, the Japanese domestic support committee expressed the opinion that, from the perspective of achieving the objectives of BBB, the earthquake resistance standards should not be relaxed without any technical basis. On the other hand, on the Nepalese side, there was the problem of the limited availability of locally available building materials and the resistance of local residents to changing the brick structures that had taken root in their daily lives. Under these circumstances, it was necessary to propose an earthquake-resistant construction method that would integrate the opinions of both sides and be suitable for Nepal.

In interviews with JICA and Nepalese officials, it was discovered that the guidelines proposed in this project were subsequently reviewed and revised many times to meet the actual situation. In particular, for housing reconstruction, a revised building plan was proposed to meet the guidelines of the ODA loan “Nepal Technical Assistance for Emergency Reconstruction Support Project (Housing Project)”, which was being implemented in parallel with the technical assistance. The guidelines compiled by the project were a useful first step toward raising residents' awareness of earthquake-resistant buildings and promoting their use. According to NSET²¹, a Nepalese NGO, the fact that Japan proposed the revision of earthquake-resistant building standards was in itself of great significance. They commented that because it was a

²¹ Officially known as the National Society for Earthquake Technology-Nepal, it was established in June 1993 to contribute to disaster risk management, and its members include academics and researchers in Nepal. Since its inception, it has had close ties with Japanese research institutions.

Japanese proposal, it was accepted by the Nepalese government with a sense of trust, and that a proposal from within Nepal would not have been accepted.

As a result, understanding of earthquake-resistant buildings has been promoted and contributions made to the dissemination of earthquake-resistant houses and schools that meet Nepal's actual conditions. The above contributed to the promotion of BBB, which was referred to and highly evaluated by WB, ADB, and others. Non-engineered buildings are common in other neighboring countries, and there are elements of these experiences that can be applied to other countries as well.

End

Attachment Table 1: QIPs survey results at the time of project completion and post-evaluation

(○: used/generally effective (the number of participants for whom the effect was confirmed to be about 70-80% or more of the total participants), △: partially used (used differently from the initial purpose)/partially effective (the number of participants for whom the effect was confirmed to be less than about 70% of the total participants), ×: not used at all/not effective at all, or limited effectiveness, n.a.: Effectiveness cannot be confirmed).

No.	QIP No.	Case name	Theme	Location County, place name/village name in parentheses, word No., municipality name	Date of completion	Project Completion Survey Results		Results of the Ex-post evaluation Survey	
						evaluation	remarks	evaluation	remarks
1	QIP-01(02)	Irkhu Community Training Center Construction Project	Building and strengthening community capacity	Sindhupalchok (Irkhu, Ward 8, Chautara Sangachowkgadi Municipality)	March 21, 2018 completion	○		○	
2	QIP-01(04)	Bungkot Community Training Center Construction Project	Building and strengthening community capacity	Gorkha (Bungkot, Ward 7&8, Shahid Lakhani Rural Municipality)	August 31, 2017 completion	○		○	
3	QIP-02	Project to Support Women's Social Participation in Rural Areas through the Reconstruction of a Women Interaction and Training Center	construction	Sindhupalchok (Chautara, Ward 5, Chautara Sangachowkgadi Municipality),	September 6, 2017 completion	○		△	It serves as an accommodation for employees living in rural areas.
4	QIP-03	Project to support the strengthening of health and sanitation services through the reconstruction of the Ampipal Hospital outpatient department Building	construction	Gorkha (Palumgtar Municipality)	December 1, 2018 completion	○		○	
5	QIP-04	Palungtar Community Police Station Reconstruction Project to maintain public safety and improve social services	construction	Gorkha (Palumgtar Municipality)	December 25, 2017 completion	○		○	
6	QIP-05	Project to support the improvement of social services through the reconstruction of the Thokarpa Village Development Committee Office	construction	Sindhupalchok (Thokarpa Ward 1&8, Sunkoshi Rural Municipality)	December 20, 2016 completion	○		○	
7	QIP-06	Project to support agricultural activities in the district through the reconstruction of the Agricultural Development Office	construction	Sindhupalchok (Chautarara, Ward 5, Chautara Sangachowkgadi Municipality),.	November 9, 2017 completion	○		○	

No.	QIP No.	Case name	Theme	Location County, place name/village name in parentheses, word No., municipality name	Date of completion	Project Completion Survey Results		Results of the Ex-post evaluation Survey	
						evaluation	remarks	evaluation	remarks
8	QIP-07	Project to support agricultural activities through the reconstruction of an agricultural products collection center for small farmers	construction	Sindhupalchok (Melamuchi , Ward 1&2, Melamchi Municipality)	August 14, 2017 completion	○		○	The agricultural cooperative organization is well organized, and with the development of its activities, the building is being fully utilized as a sales store for agricultural inputs and as a financial institution, in addition to its original purpose as a rural collection center.
9	QIP-09	Project to support the Bhotechaur Rural Development Committee and Melamchi in restoring the functionality of transport and irrigation facilities through road rehabilitation	public works	Sindhupalchok (Bhotechaur, Ward 1&2, Melamchi Municipality)	March 10, 2017 completion	○		○	As seen in the results of the inspection and interviews with government officials and others, these facilities were being used.
10	QIP-12	Project to support the improvement of social services through the reconstruction of the Barpak Village Development Committee Office	construction	Gorkha (Barpak , Ward 1&2, Barpak Sulikot Rural Municipality)	October 8, 2018 completion	○		○	
11	QIP-13	Project to Support Women's Social Participation in Rural Areas through the Reconstruction of Women's Community Center	construction	Gorkha (Barpak , Ward 1&2, Barpak Sulikot Rural Municipality)	December 13, 2018 completion	○		○	
12	QIP-14	Project to support the strengthening of health services through the reconstruction of health posts	construction	Gorkha (Barpak, Ward 1&2, Barpak Sulikot Rural Municipality)	January 7, 2019 completion	○		○	
13	QIP-16	Project to support the improvement of social services through the reconstruction of the Saurpani Village Development Committee Office	construction	Gorkha (Saurpani, Ward 4, Barpak Sulikot Rural Municipality)	Completed November 14, 2017	○		○	Utilization status confirmed by observation
14	QIP-17	Maneshwara Village Development Committee Office Reconstruction Project to Support Improvement of Social Services	construction	Sindhupalchok (Maneshwara, Ward 8, Barabise Municipality)	April 4, 2018 completion	○		○	
15	QIP-18	Project to Strengthen Women's Cooperative Formation	Livelihood Recovery	Gorkha (Barpak, Ward 1&2, Barpak Sulikot Rural Municipality)	January 2018 completion	○		○	

No.	QIP No.	Case name	Theme	Location County, place name/village name in parentheses, word No., municipality name	Date of completion	Project Completion Survey Results		Results of the Ex-post evaluation Survey	
						evaluation	remarks	evaluation	remarks
16	QIP-19	Livelihood recovery project for women through goat farming	Livelihood Recovery	Gorkha (Barpak, Ward 1&2, Barpak Sulikot Rural Municipality)	January 2018 completion	○	As of July 2018, six units were out of business.	△	In addition to the six persons who ended farming at the end of the project, all ten of the Dalit women interviewed had stopped farming.
17	QIP-20 (01)	Project to improve vegetable farming techniques for women	Livelihood Recovery	Gorkha (Barpak, Ward 1&2, Barpak Sulikot Rural Municipality)) (Kharibot, Ward2, Simjung, Ward 4, Muchok, Ward 5, Ajirkot Municipality) (Khoplang, Ward 1&2, Mirkot, Ward 9&10, Palungtar Municipality),	January 2018 completion	○	Both county areas confirmed that vegetable production increased after the project implementation.	○	The results of the stakeholder and beneficiary interviews (15 people in total) showed that the contribution of the project QIP was appreciated, and they confirmed the continued effectiveness of the project.
	Sindhupalchok (Talamarang Bansbari, , Ward 6 & 12, Melamuchi Municipality) (Irkhu, Ward8, Chautara , Chautara Sangachowkgadi Municipality) (Maneshawara, Ward 8, Barhabise Municipality) (Mangkha, Ward 6 -8, Balefi Rural Municipality) (Thokarpa, Ward 1&2, Sunkoshi Rural Municipality)			same as above					
18	QIP-21 (01)	Maize Farming Improvement Project	Livelihood Recovery	Gorkha (Kharibot, Ward 2, Simjung, Ward 4, Muchok, Ward 5, Ajirkot Municipality)	December 2017 completion	○	In both county areas, there was an increase in maize production immediately after the project was completed.	△	The status of implementation of the training content is unchanged from the status at the end of the project.

No.	QIP No.	Case name	Theme	Location County, place name/village name in parentheses, word No., municipality name	Date of completion	Project Completion Survey Results		Results of the Ex-post evaluation Survey	
						evaluation	remarks	evaluation	remarks
	QIP-21 (02)			(Khoplang, Ward 1&2, , Mirkot, Ward 9&10, Palungtar Municipality)			However, not all participants are practicing all the techniques they received training in, and the percentage of farmers practicing strip seeding is particularly low. It was also pointed out that many farmers have not yet mastered the technique of self-seeding.		In some cases, such as in Maneshawara, farmers are reducing the production of maize itself because of the damage caused by animals, and in other cases they did not use high variety seeds much because those seeds are prone to have insects and taste inferior to older varieties. A few beneficiaries, some of whom we were able to interview directly during the field survey, also indicated that they initially used high varieties to increase production, however they have not used high varieties much since then.
Sindhupalchok (Talamarang Bansbari, , Ward 6 & 12, Melamuchi Municipality) (Irkhu, Ward8, Chautara , Chautara Sangachowkgadi Municipality) (Maneshawara, Ward 8, Barhabise Municipality) (Mangkha, Ward 6 -8, Balefi Rural Municipality) (Thokarpa, Ward 1&2, Sunkoshi Rural Municipality)									
19	QIP-22	Quality Seed Production Improvement Project	Construction, Livelihood Recovery	Sindhupalchok (Ichok, Ward 6&7, Helambu Rural Municipality) (Kiwoo, Ward 2, Helambu Rural Municipality) (Irkhu, Ward 8, Chutara Sangachokgadhi Municipality) (Phulpingdanda, Jethal, Ward 2 -5, Balephi Rural Municipality) Conduct training on superior seed	December 2017 completion	△	Rice, wheat, maize, and potato seed production had increased after the project was implemented. However, maize and potato were sold as food, not seed. In addition, not all farmers necessarily applied the techniques taught in the training.	△	The organization of the District Agricultural Development Office (DADO) ceased after the completion of this project; the status of its subsequent activities' continuation is unknown, as the DADO was the buyer; only in Phulpingdanda. This agricultural cooperative taking over the role of DADO for seed production and the utilization of seed storage facilities.

No.	QIP No.	Case name	Theme	Location County, place name/village name in parentheses, word No., municipality name	Date of completion	Project Completion Survey Results		Results of the Ex-post evaluation Survey	
						evaluation	remarks	evaluation	remarks
				cultivation techniques					
				Sindhupalchok (Ichok, Ward 7&8, Helambu Rural Municipality) Seed storage facility construction	September 23, 2018 completion	n.a.	Seed certification by the DADO, purchase, and procurement of raw seed from the DADO were assumed, but there was concern that the facility would not be utilized after the dismantling of the DADO. The Ichok and Phulpingdanda facilities had begun seed storage as of December 2018.	×	The property is owned by Annapurna agriculture cooperative but it has not been used by the cooperative since construction was completed. The location of the facility is far from users. It was used by nearby farmers to store paddy rice seeds; however, it was damaged by the flood in 2021 and has been completely unused since then.
				Sindhupalchok Kiwool, Ward 2, ,Helambu Rural Municipality) Seed storage facility construction	February 21, 2018 completion	○		×	It is owned by Ratpul Agriculture Cooperative, but it has not been used because the cooperative was not functioning until recently. The site is also located in an inaccessible location; there are plans to use it for fertilizer storage starting in 2023. However, the farmland was washed away after the flood and it is unclear how many users there will be.
				Sindhupalchok (Irkhu, Ward 8, Chautara Sangachowkgadi Municipality) Seed storage facility construction	June 26, 2018 completion	n.a.		○	Located in a less accessible location away from the center of the municipality, it was used to store seeds for the surrounding farmers.
				Sindhupalchok (Phulpingdanda, Ward 4, ,Balefi Rural Municipality)	August 14, 2018 completion	○		○	From the completion of the project to the present, the agricultural cooperative has taken the lead in seed production, collection, and

No.	QIP No.	Case name	Theme	Location County, place name/village name in parentheses, word No., municipality name	Date of completion	Project Completion Survey Results		Results of the Ex-post evaluation Survey	
						evaluation	remarks	evaluation	remarks
				Seed storage facility construction					distribution using the project facilities.
20	QIP-23	Construction Safety Improvement Project for Housing Reconstruction	Construction	Sindhupalchok (Chautara Sangachowkgadi Municipality)	June 19, 2016 completion	○		—	When interviewed by the municipality, they commented that the seminar was useful at the time because it was a seminar to improve construction safety for residents and mason receiving support for housing reconstruction.
21	QIP-24	Majuwa No.1 & No.2 Water Headrace Improvement Project	public works	Sindhupalchok (Chautara Sangachowkgadi Municipality)	February 14, 2018 completion	n.a.	Immediately after construction was completed, the community located halfway between the water source and the municipality of Chautara requested that a water supply system be built, and the facility was to be put to use only after that system was in place.	△	According to Water User Committee (WUC) responsible for operation and maintenance of the Project ,Since the planning of the Majuwa pipeline route, the WUC has been opposed to the planned route because proper volume of water could not be secured. WUC rerouted the pipeline and has used it since July 2020.
22	QIP-25	Khahare Khola Bridge Construction Project	public works	Gorkha (Kahare Khola, Ganku Ward 6 Srinathko , Ward7, Siranchowk Rural Municipality)	November 14, 2018 completion	○	Traffic volume increased after the project was completed.	○	Traffic volume data could not be confirmed, but interviews with the municipalities and other officials in the target area confirmed an increase in traffic volume.
23	QIP-26	Jhyalla Khola Bridge Construction Project	Public works	Gorkha (Jhyalla Khola, Muchok, Ward 4&5, Ajirkot Rural Municipality)	November 14, 2018 completion	○	same as above	○	same as above
24	QIP-27	Guita Domar (Gokul Chour) Disaster Prevention Park Development Project	Construction	Lalitpur Metropolitan City (Guita Domar)	January 15, 2019 completion	○		○	

Source: For the project completion, JICA, Nepal Earthquake Recovery and Rehabilitation Project Final Report Deliverable 4 (Japanese summary), April 2019. At the time of ex-post evaluation, it is based on interviews and site checks from each municipality and ward representative involved.

Note: QIPs for the qualitative survey