Report Number: ICRR0023403

1. Project Data

Project ID P162067	**Project Name** MDTF funding for EHRP
Country Nepal	**Practice Area(Lead)** Urban, Resilience and Land

L/C/TF Number(s)	Closing Date (Original)	Total Project Cost (USD)
TF-A4783	31-Jul-2020	14,105,527.64
Bank Approval Date	**Closing Date (Actual)**	
21-Aug-2017	30-Jul-2022	

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	15,000,000.00	15,000,000.00
Revised Commitment	14,105,527.64	14,105,527.64
Actual	14,105,527.64	14,105,527.64

Prepared by	Reviewed by	ICR Review Coordinator	Group
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2. Project Objectives and Components

a. Objectives

According to the Grant Agreement (GA, p. 6) and the Project Appraisal Document (PAD, paragraphs 8 and 22), the Project Development Objective (PDO) was "to restore affected houses with multi-hazard resistant core housing units in targeted areas and enhance Nepal's ability to improve long-term disaster resilience."

This grant was used to co-finance a gap in financing the components of a parent project, the Earthquake Housing Reconstruction Project (EHRP or P155969). The International Development Association (IDA) Crisis Response Window financed the US$200 million EHRP. This and EHRP had the same PDO, except that this

PDO was to enhance the country's ability, not the government's as stated in the EHRP PDO, to improve long-term disaster resilience (ICR, paragraph 10).

This review will assess the project's performance against the following objectives:

- To restore affected houses with multi-hazard resistant core housing units in targeted areas
- To enhance Nepal's ability to improve long-term disaster resilience.

b. Were the project objectives/key associated outcome targets revised during implementation?

Yes

Did the Board approve the revised objectives/key associated outcome targets?

No

c. Will a split evaluation be undertaken?

Yes

d. Components

1: **Housing Reconstruction:** (US$50.0 million at appraisal, US$10.0 million actual). This component was to finance a grant program for owner-driven housing reconstruction in targeted areas. After households met eligibility criteria, grants were to be used to reconstruct multi-hazard resilient houses. Eligible households were to be willing to participate and follow resilient construction guidelines. Reconstructed houses were to meet standards, following prescribed timelines. This component was to supplement the financing needs of the parent project, the Bank financed Earthquake Housing Reconstruction Project (EHRP, P155969).

2: **Disaster Risk Management Systems:** (US$0 million at appraisal, added US$5 million at restructuring, US$4.1 million actual, according to the ICR data sheet but US$5 million in ICR, Annex 3).
This component had no planned activities or fund allocation at appraisal because the original grant was sufficient only to finance the housing reconstruction component above. Restructuring (see Dates below) added funds to finance the following two new activities to supplement the disaster risk management systems, the second of four EHRP components:

- First, US$3 million was to finance the activities of the National Reconstruction Authority (NRA) to (i) train masons in multi-hazard resistant reconstruction; (ii) assist affected households that have not started reconstruction; (iii) offer livelihood activities for earthquake-affected households: (iv) review the housing finance market and explore how beneficiaries could access housing finance; and (v) build capacity in local government reconstruction management by assisting officials of the NRA, Central Level Project Implementation Unit (CLPIU), District Level Project Implementati9on Unit (DLPIU), and District Coordination Committees (DCC).
- Second, US$2 million was to finance activities of the National Disaster Risk Reduction and Management Authority (NDRRMA) to (i) conduct a multi-hazard disaster risk assessment platform for municipal and provincial governments; (ii) strengthen capacity of provincial and municipal governments on disaster risk reduction and management (DRM), pandemics, or emergencies; (iii) share with federal, provincial, and local governments disaster-related data; and (iv) establish an information technology system; provide equipment to emergency operations centers at the national,

provincial, and district levels, and strengthen capacity of NDRRMA staff. The NDRRMA replaced the NRA as implementing agency in December 2021 (see Dates below).

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Project Cost: The original total project cost at appraisal was US$50 million. The revised project cost was US$10 million. This amount was increased to US$15.0 million at restructuring in July 2020. The grant disbursed US$14.1 million.

Financing: The grant was financed by a Multi Donor Trust Fund (MTDF-TF072450) administered by the World Bank through the International Development Association (IDA). The Government of Canada, the Swiss Agency for Development Cooperation (SDC), the United Kingdom's Department for International Development (DFID), and the United States Agency for International Development (USAID) contributed to this MDTF.

Borrower Contribution: None.

Dates: The Bank approved the grant on August 21, 2017. The grant became effective on September 22, 2017. The project conducted its Mid Term Review (MTR) on March 9, 2020. The grant was to close on July 31, 2020 but was extended three times for a total of 24 months and closed on July 30, 2022. According to the Bank team, they anticipated that the government would request larger funding at a later date. Hence, the team used an original estimate of US$50 million at appraisal. There were 3 level 2 restructurings:

- On July 31, 2020, to acknowledge US$5 million donors added to finance disaster management risk management activities that complemented the EHRP (see component 2 above). Costs were allocated to these new components with corresponding added indicators. The restructuring reduced the target values of the original housing component indicators to reflect the actual grant received. This restructuring extended the grant closing date for the first time by 18 months, to January 31, 2022.
- On January 16, 2022, to reduce target values of the output indicators, replace the NRA with the NDRMMA as implementing agency, and extend the loan closing date a second time for 5 more months, to June 30, 2022. The government created the NRA in 2015 following the earthquake as a special purpose institution to oversee post-earthquake reconstruction with a sunset clause effective December 24, 2021. Parliament enacted the NDRMMA as an apex institution in its place (RES49272, Rationale for Restructuring).
- On June 30, 2022, to extend the loan closing date a third time for one month, from June 30, 2022 to July 30, 2022.

Split Rating: A split rating of the project outcome is applied. Appraised and board approved project funds were US$50 million, but the grant agreement was made for US$10 million only. The grant agreement stated that the US$10 million is to assist part 1.1 of the Project (Grant Agreement, para. 3.01), and included reduced indicator targets that corresponds to the 10 million grant amount. However, the original PDO indicator targets were reduced during the restructuring in 2020. Thus, IEG takes the restructuring in 2020 to apply the split rating.

3. Relevance of Objectives

Rationale

Context: Following the April 25, 2015, earthquake, Nepal determined a need for US$1.2 billion to rebuild destroyed houses. The World Bank Board approved a US$200 credit from the IDA Crisis Response Window to finance the Earthquake Housing Reconstruction Project (EHRP) in June 2015. Other donors pledged another US$300 million, consisting of US$100 million in budget support from the European Commission, US$100 million in parallel financing from the Japan International Cooperation Agency (JICA), and US$100 million from the government of India. The Bank established a Multi Donor Trust Fund (MDTF) as a facility for donors to supplement the housing reconstruction needs of EHRP. Housing reconstruction, disaster management systems, project implementation support, and Contingent Emergency Response Component (CERC) comprised the EHRP.

Country Plans: The PDOs were relevant to the country's plans to address disaster risk management. The Nepal Ministry of Home Affairs prepared its National Policy for Disaster Risk Reduction in 2018 to enhance the government's disaster resilience. The PDO directly contributed to this aim. The PDO was also highly relevant to the 2019 Nepal Disaster Risk Management Act and the Nepal Disaster Risk Reduction and Management Rules. Both acts defined the framework for cooperation between the national and local authorities and established a national disaster risk reduction and management council to oversee response to natural disasters. These acts and rules focused on protecting its citizens, public and private property, natural and cultural heritage, and physical infrastructure to reduce disaster risk and strengthen provincial and local governments.

World Bank Country Partnership Framework: The PDOs were relevant to the World Bank's Country Partnership Framework for Nepal for FY2019 – 2023 (Report No. 121029-NP). The PDOs contributed to achieving Objective 3.3. Increased resilience to health shocks, natural disasters, and climate change as well as Focus Area 3: Inclusion and Resilience. The PDOs were also relevant to the 'build back better' concept of the Sendai Framework for Disaster Risk Reduction 2015 – 2030. This concept was embodied in Priority 4 - Enhancing disaster preparedness for effective response, and to Build Back Better in recovery, rehabilitation, and reconstruction.

World Bank Experience in the Sector and in the Country: The World Bank has financed operations worldwide in response to reconstruction and rebuilding following disasters. In the case of Nepal, the Bank has financed efforts to increase understanding seismic risk and using the information to improve the country's resilience to such risks. The Global Facility for Disaster Reduction and Recovery (GFDRR) is financing a detailed vulnerability assessment of public sector buildings such as schools, health centers, and public administration buildings. The South Asia Open Cities Initiative platform collects the country's exposure and vulnerability data. The platform uses low-cost, open-source tools, such as GeoNode and openStreetMap to engage government officials and local communities in mapping the exposure of infrastructure and building assets across Kathmandu Valley.

The level of ambition of the PDO: This was appropriate to supplement the tremendous housing reconstruction needs of the target area while shadowing the PDO of EHRP to meet multi-hazard resilient standards and making optimal use of the capacity resources of the EHRP. The PDOs replicated those of EHRP and were relevant to both the country plans and the Bank's strategy. The relevance of the PDOs is rated Substantial.

Rating
Substantial

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective
To restore affected houses with multi-hazard resistant core housing units in targeted areas.

Rationale
Theory of Change: The project did not prepare a theory of change (TOC) at appraisal but replicated the results framework of the EHRP to show the causal logic behind the inputs, outputs, and outcomes of the project. The project prepared a TOC at closing (ICR, Figure 1, paragraph 26).

Inputs were to be the grants to eligible households in the target area to finance the construction of multi-hazard resilient housing. The inputs were to replicate those identified in EHRP such as training and technical assistance directed at participating households on the guidelines, quality standards, and timelines for constructing multi-hazard resilient houses. The inputs included support for beneficiary households to ensure compliance with the social, and environmental management framework and mitigation measures; training of artisans; communication and outreach; and issuing certificates of compliance with standards and completion of multi-hazard resilient core housing units. Technical assistance was to also develop a grievance redress mechanism (GRM).

Outputs were to include the completed multi-hazard resistant houses and greater awareness of safer, earthquake resilient reconstruction processes. Note that the GA was to finance only the grants for the households to construct these multi-hazard resistant houses. Other inputs identified above, while not directly financed by the project were presented to provide the context of how this objective complemented those of EHRP. The government established the National Reconstruction Authority (NRA), and under the EHRP established the Project Implementation Units (PIUs) at the central and district levels and surveyed target beneficiaries in 14 districts.

Outcome: The project was to have two outcomes: first, the number of reconstructed resilient core housing households, and second, the number of citizens made aware of earthquake resilient reconstruction. Note that these indicators were at the intermediate rather than outcome levels (see /section 9 M&E Design below).

The TOC identified the following three critical assumptions to increase the likelihood of achieving this objective: (i) EHRP trained the engineers and masons on hazard resistant construction; (ii) disaster risk reduction and management plans were completed and implemented; and (iii) those trained have adopted relevant practices. The assumption did not include the risk from other hazards at implementation, that resources matched the objective, or relevant government policy would be unchanged. The last two did occur (e.g.., reduced resources, federalization, change in implementing agency). These factors delayed

implementation. The TOC did not mention an assumption related to the affordability of the borrowing arrangements for low income households.

OUTPUTS:

- 16,194 direct beneficiaries. The project did not achieve the original target 68,800 persons. 50 percent of the direct beneficiaries were female, achieving the original target.
- Homeowners reconstructed 3,766 houses with multi-hazard resilient features. The original target of 16,000 houses was not achieved. The project reconstructed 3,766 improved houses.
- All intended beneficiaries or 100 percent were made aware of project information and investments, as targeted. of whom 50 percent were female, as targeted.

OUTCOMES: The project did not achieve the following PDO indicator targets:

- Homeowners reconstructed 3,766 houses with multi-hazard resilient features. The original target was 16,000 houses.
- Of these, 1,218 were female headed households. The original target was 4,160 female headed households.
- 3,766 citizens were made aware of earthquake resilient reconstruction. The original target was 16,000 citizens.
- The project addressed 100 percent of grievances registered related to delivery of project benefits. This indicator was removed at restructuring (see below).

Overall, the efficacy of the project to achieve this original objective is rated Modest. The project reconstructed some multi hazard resilient houses and reached some citizens to be aware of earthquake resilient reconstruction, but the achievements were significantly lower than the original targets.

Rating
Modest

OBJECTIVE 1 REVISION 1
Revised Objective
The objective was not revised. The target values of the outputs and outcome indicators were revised.

Revised Rationale
Revised Theory of Change: The TOC added new inputs (activities), outputs and outcomes to correspond to the addition of new activities under Component 2 after the July 2020 restructuring. The new activities were to enhance local government capacity in DRM and emergency response (see Objective 2 below). The TOC prepared at closing reflected inputs, outputs, and outcomes to help reduce disaster mortality and the number of affected people defined in the National Policy for Disaster Risk Reduction (2018) and the assessment of the housing finance market and equipping an operation center . Revised outputs were the reduced target values of the number of direct beneficiaries and those aware of the project investments, disaggregated by gender, the number of houses reconstructed. These reduced targets reflected the available funds for housing reconstruction. The restructuring (July 2020) removed grievances from its results framework and transferred

its monitoring and reporting to EHRP. Revised outcomes were to reflect the reduced targets for the beneficiaries, disaggregated by gender, and those made aware of earthquake resilient reconstruction. The critical assumptions remained the same.

REVISED OUTPUTS:

- The project reported 16,194 direct project beneficiaries **exceeding** the revised target of 13,760 beneficiaries.
- The project reconstructed 3,766 improved houses. The project **exceeded** the revised target of 3,200 houses.
- The number of Intended female beneficiaries aware of the project was reduced from 34,400 to 6,880 but remained at 50 percent of the target beneficiaries)

Revised Outcomes:

- Homeowners reconstructed 3,766 houses with multi-hazard resilient features. The project **exceeded** the revised target of 3,200 houses. The project reduced the target value to reflect the actual grant received.
- Of these, 1,218 were female headed households. The project **exceeded** the revised target of 832 female headed households.
- 3,766 citizens were made aware of earthquake resilient reconstruction. The project **exceeded** the revised target of 3,200 citizens. The Socio Technical Assistance Program contributed to exceeding this target.
- The project retrofitted 22 vulnerable-headed households and made these accessible. The January 2020 restructuring added this target. The project did not achieve the target of 100 houses to be made accessible. The National Disabled Association identified 32 vulnerable headed households to be improved. Other organizations assisted 10 of these households.

Overall, the efficacy of the project to achieve this objective with revised targets is rated Substantial. The project exceeded the target values of the outcome indicators but did not meet the added target with respect to accessible houses for those headed by vulnerable people. A substantial number of households reported heightened awareness of earthquake resilient housing reconstruction reflected in the completed core houses.

Revised Rating
Substantial

OBJECTIVE 2
Objective
To enhance Nepal's ability to improve long-term disaster resilience.

Rationale
Theory of Change: The TOC was reflected in the results framework of the EHRP for this objective but had no identified inputs, outputs, or outcomes for this project. Restructuring added resources, introduced new

inputs, outputs, and outcomes see below). No original inputs, outputs, or outcomes were associated with this objective. The efficacy of the project to achieve this objective is not rated.

Rating
Not Rated/Not Applicable

OBJECTIVE 2 REVISION 1
Revised Objective
The objective was not revised. The project added new activities and corresponding new output indicators

Revised Rationale
Revised Theory of Change: The TOC added new inputs, outputs, and outcomes to correspond to the added activities under Component 2 after the July 2020 restructuring. The TOC prepared at closing reflected inputs, outputs and outcomes to enhance local government capacity in DRM and emergency response and help reduce disaster mortality and the number of affected people defined in the National Policy for Disaster Risk Reduction (2018). **Revised Outputs**: The restructuring added the following outputs with accompanying target values: an assessment of the housing finance market and equipping one Emergency Operation Center. Outputs did not include the training conducted to improve the multi-hazard resistant construction capacities or the resulting livelihoods generated for vulnerable target beneficiaries. **Revised Outcomes** were to the number of vulnerable-headed households whose houses were made accessible and the number of local governments with disaster risk reduction management plans. These indicators were more at an intermediate rather than outcome level (see Section 9 M&E Design below). The outcomes did not include the outcome of the participation of masons trained in constructing multi-hazard resistant houses, or change in income of vulnerable-headed households from livelihoods introduced by the project. The assumptions from the TOC of objective 1 also applied here.

REVISED OUTPUTS: The project achieved the following revised outputs as targeted:

- The project completed an assessment of housing finance market as targeted. This report analyzed the urban housing recovery market, the availability and use of different types of financing schemes, which created incentives for resilient reconstruction, and factors influencing household access to subsidized loan packages in urban areas.
- The project equipped one Emergency Operation Center as targeted. The national emergency operations center was fully equipped with additional required search and rescue equipment, communication devices, fighting suits, medical life savers, mechanical saws, helmets, gloves, pumps, etc. Eight multi-seater ambulances were handed over to the Armed Police force. NDRRMA procured communication and Search and Rescue equipment for 40 local emergency operation center and 6 to 8 district emergency operation centers.

REVISED OUTCOMES:

- 33 local governments from 10 disaster prone districts developed their disaster risk management plans. The project **exceeded** the target of 25 local governments.

- The project retrofitted 22 houses of vulnerable-headed households and made these accessible. The project did not achieve the target of 100 houses to be made accessible. The National Disabled Association identified 32 vulnerable headed households to be improved. Other organizations assisted 10 of these households.

Overall, the efficacy of the project to achieve this objective with revised outcome indicators is rated Substantial. The added resources led to achieving targeted outputs to enhance Nepal's ability to improve long-term disaster resilience.

Revised Rating
Substantial

OVERALL EFFICACY
Rationale
The overall efficacy of the project to achieve the original objectives is rated Modest. Target values of outcome indicators were not achieved but some level of reconstruction reached the target households. No outcomes were associated with the second objective and was not rated because there was no funding associated with the inputs associated with this objective. This was revised at restructuring (see below).

Overall Efficacy Rating
Modest

Primary Reason
Low achievement

OVERALL EFFICACY REVISION 1
Overall Efficacy Revision 1 Rationale
The overall efficacy of the project to achieve the same objectives with revised target values of outcome indicators is rated Substantial. Added resources provided support to achieve the outcomes under the second objective in parallel to the inputs, outputs and outcomes under the parent project. Adjustments to the target values of outcome indicators under the first objective led to exceeding the intended impact of the project outputs.

Overall Efficacy Revision 1 Rating
Substantial

5. Efficiency

Economic and Financial Efficiency: The project conducted a cost benefit analysis at appraisal using a 10 percent social discount rate. The project estimated a benefit cost ratio of 1.8 and an Internal Rate of Return (IRR) of 21.9 percent without a net present value (NPV) of the investments. Assumptions included optimistic calculation of the economic life of housing units built; operations and maintenance (O&M) costs at 1 percent of component costs; and the average market value of the houses at US$15,000, with a price to rent ratio of 20, and an annual value of living in multi hazard resilient house at US$750.

At closing, the economic efficiency used the same methodology used at appraisal (ICR, Annex 4, paragraph 3) except for two things - using a more conservative assumption to calculate the economic life of the housing units and a range of discount rates from 5 to 10 percent, rather than just the 10 percent social discount rate to accommodate the expected low growth rate in the country. Benefits were to include shadow annualized rental income from the reconstructed houses. Other benefits such as the prevention of death and injuries from earthquakes, poverty alleviation from livelihood support were not included in the economic analysis, thus the benefits were underestimated. At closing, the IRR was estimated at 23.8 percent, with NPV of the investments ranging from US$11.9 million at 10 percent discount rate and US$23.6 million at a 5 percent discount rate. At 10 and 5 percent discount rates, the benefit cost ratios were at 2.2 and 3.2, respectively.

Administrative an Operational Efficiency: The change in the political system slowed implementation beginning in 2017. The Constitution established a new political and administrative structure of Provincial and Local Governments (PLGs). The federalization process shifted functional and service delivery responsibilities from the federal to the PLG levels. Under this transition, the NRA, rather than the Ministry of Federal Affairs and Local Development (MOFALD) or the Ministry of Urban Development (MOUD), administered the Central Level Project Implementation Units (CLPIUs). The Bank restructured the EHRP in June 2019 to accommodate these institutional changes. This project then followed with a restructuring in July 2020. The NRA transferred the beneficiary and housing reconstruction records to the newly established Local Governments (LGs). The restructuring re-focused its technical assistance to building LG capacity in record management, use of data for service delivery, and DRM.

The government created the NRA after the 2015 Gorkha Earthquake with a specific 6-year term to lead the reconstruction of the country (ICR, paragraph 58). The NRA experienced frequent leadership changes, understaffed, and had high turnover (ICR, paragraph 57). The government bureaucracy posed coordinating challenges that led, for example, to delays in decision making on policy, operational and procurement. The government discontinued the NRA in December 2021 but added another year to complete planned works disrupted by COVID-19. The NRA then transferred its remaining activities in making accessible homes, provide assistive devices, and livelihood support to people with disabilities to NDRRMA. Note that the NDRMMA also reported inadequate staff and delayed budget authorizations. These inefficiencies led to implementation delays, particularly to implementing disaster risk management systems activities.

The project extended the closing date three times for the implementing agencies to complete the project. The COVID-19 pandemic in early 2020 slowed implementation. The government temporarily froze the project budget for many activities, including training, consultation, and technical inspections of reconstruction activities. They also halted reconstruction activities for more than half a year.

Overall efficiency is rated Modest. While the economic efficiency was substantial, the implementation efficiency was overall modest due to low operational efficiency.

Efficiency Rating

Modest

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal	✓	21.90	100.00 ☐ Not Applicable
ICR Estimate	✓	23.80	80.00 ☐ Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

The split rating of the outcome is shown below. The overall outcome of the project is rated Moderately Unsatisfactory.

	Original	July 2020 Restructuring
Relevance of PDO	Substantial	
Efficacy		
PDO 1 - restore affected houses	Modest	Substantial
PDO 2 - enhance long term resilience	Not Rated	Substantial
Overall Efficacy	Modest	Substantial
Efficiency	Modest	
Overall Outcome Rating	Moderately Unsatisfactory	Satisfactory
Numerical Value of Outcome Rating	3	4
Disbursements (in US$ millions)	10.00	14.11
Weighted Disbursements	.0.71	0.29
Weighted Value of Outcome	3x0.71 = 2.13	4x0.29 = 1.16
Overall Outcome	2.13 +1.16 =3.29 =3	

a. Outcome Rating
Moderately Unsatisfactory

7. Risk to Development Outcome

The following pose risks to the project outcomes:

- **Financial Risk**: The housing reconstruction under the project fostered widespread household indebtedness. The project provided each household with a grant of NPR 300,000 against the average

housing reconstruction cost of NPR 907,647. The government and external partners provided employment generation activities through reconstruction and livelihood support programs. One third of households obtained loans from multiple sources such as landlords, relatives, banks, finance companies, etc., to finance the reconstruction funding gaps. The average interest rate charged by landlords was high (19.7 percent), those from charity and religious organizations (8.6 percent), and private bank loans (11.9 percent). Interest-subsidized loans to the poor and disadvantaged households were limited. Many may be compelled to sell their land or housing assets. This project did not help ultra-poor, who were unable to complete reconstruction of their houses because of poverty, or persons with functional limitations, except for the targeted vulnerable-headed households.

- **Continuing employability and retaining built capacity.** The masons and carpenters newly trained on resilient reconstruction may lose employment prospects as reconstruction activities diminish. EHRP provided women masons with additional training on advanced construction skills, safer construction practices, gender and social inclusion, and entrepreneurship development for post-reconstruction employability. More than 150 women masons received training on making homes accessible to all. Without mainstreaming resilient housing construction practices including those for families with disabilities to retain and utilize the newly trained masons and engineers, there is a high risk that capacity built, and inclusive resources may be lost.

8. Assessment of Bank Performance

a. Quality-at-Entry

The Bank team designed the project to add housing reconstruction financing to address the gap of the parent project, EHRP. The team adopted the same PDOs, made use of the same implementation arrangements, and applicable environmental safeguard policies as those of EHRP. There was a lack of justification for the use of the instrument, against an AF to an existing project, e.g., EHRP. The Task Team clarified that EHRP was scaled up twice ($300m in 2017 and another $200m in 2020) due to the large financing gap under the government's housing reconstruction program. The government requested to use this recipient executed MDTF for the housing grants.

The Bank team adopted the lessons from the two-year implementation of EHRP. These included (i) planning technical assistance and implementation schemes prior to releasing housing grants; (ii) simplifying designs and standardizing compliance across all funding sources. The Bank team also adopting lessons from post disaster housing reconstruction in Pakistan (Earthquake Emergency Recovery Credit) and India (Gujarat Emergency Earthquake Reconstruction Project) and post disaster projects in India, Haiti, the Philippines, and Indonesia. These lessons included (i) an owner-driven approach to reconstruction, using locally available materials, traditional construction methods, culturally sensitive design, with disaster resilient features; (ii) reducing the need for relocation and respecting established social links; (iii) applying a uniform reconstruction policy regardless of funding source; (iv) simultaneously disseminating information regarding the strategies for transitional and permanent housing; (v) including the adoption of seismic resistant specifications, sustainable building material supply chains; and a transparent mechanism for financing, implementation, and monitoring in the housing reconstruction policy; and (vi) a public information campaign (PAD, paragraphs 31-34). Other lessons from other housing reconstruction projects were also included such as using social protection and cash transfers for reconstruction and livelihood restoration and evaluation; building community awareness on

disaster safety; training artisans; and adopting strong grievance redress mechanisms (GRM) (PAD, paragraph 37).

The Bank team rightly assessed the risk at entry as high and addressed these with adequate mitigation measures such as resources for training the implementing agency, and seeking external resources for (i) social and environmental safeguard compliance; (ii) enjoining community participation in design and implementation; (iii) augmenting homeowner's planning, design, and construction management capacity; and (v) using electronic direct cash transfers to beneficiary bank accounts (PAD, paragraph 52).

However, there was a significant financing gap when the project was approved. While the appraised amount was US$50 million, the grant agreement was made for $10 million only (eventually increased to $15 million). There were also no indicators for the second objective at the time of MDTF approval. Given these design shortcomings, the Bank performance at entry is rated Moderately Unsatisfactory.

Quality-at-Entry Rating
Moderately Unsatisfactory

b. Quality of supervision

The Bank team conducted 9 supervision missions over the 5-year implementation period, including virtual missions during the pandemic. The TTL and most key task members were based in the country and worked closely with the government. The team conducted monthly review meetings with the EHRP team. The team provided implementation support including three project restructurings. The first two restructurings addressed the change in of implementation agency (from NRA to NDRRMA), support the transition to federalism, refocus attention to capacity building needs at the local level, and add activities and corresponding indicators to support the second PDO. The Bank team recommended a separate follow-on operation in response to a government request for a fourth restructuring. The shortcoming of the result framework persisted at supervision and resulted in M&E challenges (see Section 9 M&E below), e.g., outcome of capacity building activities.

The Bank team complemented this project with a separate technical and operational support to the government to: (i) conduct the Earthquake Housing Damage and Characteristics Survey (EHDC) to identify and register all beneficiaries for the EHRP, (ii) finance a Third-Party Monitor to assist the government in conducting samples of field-level inspections. and advice to engineers and technicians, and (iii) conduct the International Conference on Nepal Reconstruction (ICNR).

The Bank performance at supervision is rated Moderately Satisfactory. The lack of indicators for the second PDO remained unaddressed at supervision. The Bank team delayed restructuring rather than immediately after signing the grant because they expected the government to request additional resources. In the end, the government did not pursue this as the Bank team anticipated.

The overall Bank performance is rated Moderately Satisfactory.

Quality of Supervision Rating
Moderately Satisfactory

Overall Bank Performance Rating
Moderately Unsatisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design
The M&E design was sound as far as using the EHRP-established Management Information System (MIS) to monitor physical and financial progress of housing reconstruction. EHRP MIS was linked to the Ministry of Finance budget information system, conducted surveys to target beneficiaries, enroll eligible households, inspect reconstruction progress and compliance with design and timelines, and monitor banking modules. The PDOs were specific and simply stated although part of the PDO could only be met by outcome indicators that were more at the intermediate rather than at outcome level (number of local governments with plans). The results framework provided how the key activities under the housing reconstruction led to the multi-hazard resilient structures but not how the activities and inputs under the second PDO led to enhancing long-term disaster resilience outcomes. The intermediate outcome indicators, in general, captured the contribution of the outputs to the PDO level outcomes. These indicators were relevant, specific, measurable, achievable, and time bound. All indicators had appropriate targets. Baselines were provided by the Post Disaster Needs Assessment (PDNA) conducted following the earthquake and the HRP MIS survey. Not all indicators, however, captured outcomes under the second part of the PDO regarding improving long term resilience. The ICR acknowledged this shortcoming and noted that the indicators added at restructuring only partially captured the outputs and outcomes under the second PDO (ICR, paragraph 62). There were no outputs or outcomes associated with the capacity built in training engineers on slope stabilization or making homes handicap accessible or how the adopted local disaster plans were to improve disaster resilience.

b. M&E Implementation
The NRA Project Management Unit (PMU) implemented the M&E system although the MOFALD PIU was originally designed to undertake this function (PAD, paragraph 43). The EHRP MIS provided the backbone of an integrated record keeping system, including reconstruction and training records. EHRP MIS had basic data about each household, geographical information, family members, records of damage assessment, results of reconstruction/retrofitting judgements, participant agreement (PA), inspection results with pictures, payment records and all registered grievance information, its redress status, and record of trainings. The EHRP MIS distinguished the houses reconstructed with resources from both projects (EHRP and this project). Until mid-2019 (two years into implementation), lack of resources, capacity constraints, and coordination challenges led to poor tracking of housing reconstruction progress. Reports were delayed, with errors, with no uniform data reporting format between agencies, no mechanism to share data, or M&E information among the various stakeholders The CLPIU hired 15 technical staff for its own M&E team. The PMU hired a Third-Party Monitor to assist in implementing the M&E system. M&E improved with added resources. The Bank team

reported on Indicators not in the EHRP MIS (e.g., training under component 2). The ICR reported that beneficiaries were engaged in defining targets and assessing progress to making houses accessible or families provided with assistive devices. However, there were no indicators to report on the training conducted, the results of masons trained to undertake disaster resilient construction, the livelihoods initiated, and the households benefiting from these livelihood programs. The ICR acknowledged this lack of indicators as a shortcoming. The M&E system is likely to be sustained under the ongoing EHRP implementation.

c. M&E Utilization

The PMU, the PIU, and the Bank team used the housing reconstruction data from the EHRP MIS to prepare periodic reports and inform shifts in implementation, corrective measures to justify the three restructurings. M&E data provided evidence of the reported outcomes under the housing reconstruction. The M&E system using the EHRP MIS communicated with various stakeholders in identifying vulnerable families with members above 65 or less than 16 with access needs. The Third-Party Monitor reported on non-compliant houses to be addressed by the EHRP-funded Socio-Technical Assistance (STA) and removed non- compliant structures from the list of beneficiaries. The M&E system lacked indicators in the result framework to report on the progress of activities under component 2 and outcomes under PDO 2.

Overall, the design, implementation, and use of the M&E system is rated Modest. There were significant shortcomings in the design of indicators, particularly to PDO 2. There were weaknesses in its implementation although links were established for PDO 1 but less for PDO 2. Design had shortcomings. Implementation was initially spotty for PDO 1 but fully used as designed to report on PDO 1 outcomes.

M&E Quality Rating

Modest

10. Other Issues

a. Safeguards

Environmental Safeguards: The project was classified as Category "B" and triggered Environmental Assessment (OP/BP 4.01), Natural Habitats (OP/BP 4.04), Forests (OP/BP 4.36), and Physical Cultural Resources (OP/BP 4.11). This project used the same safeguards arrangements as in EHRP. The project complied with all triggered safeguards policies (ICR, paragraph 69). The Environmental and Social Management Framework (ESMF) of the parent project was revised in October 2018, December 2019, and April 2020 to apply environmental and social safeguard approaches and management in the targeted housing reconstruction districts. Funds added in the July 2020 restructuring to finance activities under the second component did not trigger new safeguard policies or changed the safeguard classification. Safeguard documents were submitted on February 14, 2016, and approved and published on March 4, 2016.

Social Safeguards: The project triggered the following social safeguard policies: Indigenous Peoples (OP/BP 4.10), and Involuntary Resettlement (OP/BP 4.12). The Socio Technical Assistance (STA) and make-home-accessible programs benefited vulnerable and indigenous communities. Negative impacts were identified to consist of damages to crops and trees. Low participation in the project activities were to be attributed to lack of targeted support or communication strategy for marginalized groups such as those with low financial literacy.

The project adopted a two-step process to address the revised ESMF when funds were added to address PDO 2:

- First, Review and Verification/ Validation of project level ESMPs at the municipal level, through consultation and site visits. Specific ESMPs were to be prepared at the project level but did not cover the E&S issues related to scarcity of water for reconstruction, compensatory tree plantation in community forest due to supply of timber, protection of vulnerable sites of slope instability, and landslides due to sourcing of construction materials.
- Second, supervision and implementation monitoring of ESMPs including mitigation measures at the local level. NDRRMA hired E&S safeguard specialists to mainstream E&S aspects into TA activities and conducted workshops for staff on disaster risk management and multi-hazard risk assessments.

The NRA reconstructed houses that benefited from EHRP's implementation of environmental mitigation measures (ICR, paragraph 71). EHRP implemented the rehabilitation/upgrading of existing water supply system to resolve water scarcity problem during housing reconstruction; protection of minor landslides, erosion prone, and quarry site management near the settlement area; and river training works to protect the settlement. An Independent Third-Party agency verified and reported on the compliance with environmental and social safeguard policies. EHRP also financed the Social Technical Assistance (STA) to support safeguard activities of the most vulnerable groups including women, children, and persons with disabilities.

The project used the EHRP Grievance Redress Mechanism (GRM). Grievances were sent to the Ward, Rural Municipality/Municipality, DLPIU and the NRA orally, in writing, or by phone or SMS. The MIS tracked all grievances related to the project. Most grievances were related to the eligibility of housing reconstruction beneficiary. The national housing reconstruction program registered a total of 321,725 grievances from those financed under EHRP and this project. The NRA reviewed 306,662 cases after removing duplicates or error cases. The NRA certified 45,196 houses as eligible for reconstruction and 19,091 houses for retrofitting. In this project, a total of 2,838 houses were reconstructed after receiving 3,766 grievances.

b. Fiduciary Compliance

Financial Management: Financial management did not have major issues (ICR, paragraph 78).This project did not experience financial management issues experienced by the EHRP regarding double payments and initial beneficiary tracking. The NRA resolved these issues and adopted system improvements that benefited this project. The EHRP implemented the umbrella process by signing Participation Agreements (PAs) with all participating beneficiaries who then open bank accounts. The Designated Account released the tranche payments directly to the bank. This helped record keeping and

avoided corruption. The grants were disbursed to beneficiaries in three tranches based on reconstruction progress. The first 50,000 Nepal Rupees (NPR) tranche payment activated the beneficiary bank account. The 2nd150,000 NPR tranche payment was paid upon completing and verifying plinth-level construction. The 3rd 100,000 NPR tranche payment was paid upon completion of construction up to the roof band. Completed and approved site inspection, digitization of the completed inspection form, and site photos triggered the release of the 2nd and 3rd tranches of the grants. Ineligible housing grants were to be reimbursed. Instances of delayed submission of Interim Unaudited Financial Reports (IUFRs) were noted. Audited accounts were submitted on time. The Office of the Auditor General reported a "clean" audit for the period ending15 July 2021 and issued on February 2022 (ICR, paragraph 78)..

Procurement: The Bank team monitored all procurement activities using the Bank's online Systematic Tracking of Exchanges in Procurement (STEP) tool. (ICR, paragraph 75). The NDRRMA was established in December 2019 and became operationalized in 2020 without Bank procurement experience. Procurement delays were attributed to this lack of experience delays in the agency's budget authorizations. Mitigation measures were undertaken including the hiring of a procurement consultant to address delays in NDRRMA budget allocation, unsuccessful biddings, impact of COVID-19, and slow procurement approval (ICR, paragraph 76).

c. Unintended impacts (Positive or Negative)

No unintended impacts were reported.

d. Other

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11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Moderately Satisfactory	Moderately Unsatisfactory	After applying split rating using the original targets and the revised targets, the weighted average of the overall outcome becomes Mod. Unsat.
Bank Performance	Moderately Satisfactory	Moderately Unsatisfactory	There were shortcomings as design, QAE is rated as MU
Quality of M&E	Modest	Modest	
Quality of ICR	---	Substantial	

12. Lessons

The ICR presented four lessons from the operation, slightly edited below (ICR, paragraphs 85-88):

- **Trust funds may complement an investment lending project to optimize the impact of these resources, but it could be more efficient when designed as part of a parent project**. In this project, trust funds were used to finance supplement activities that needed most resources to optimize the impact of the EHRP. This project replicated the design and PDO of EHRP and made the most use of established streamlined housing reconstruction operation. The project used the same MIS of EHRP for progress tracking and record keeping in housing reconstruction and utilized the same institutional arrangements. It enhanced the government's effort to build local government capacity and SAR capacity enhancement, complementing the EHRP. However, this project could have been prepared as an additional financing under the parent IDA project since the two projects shared the almost identical PDOs, design and arrangements. The MDTF did have a risk of inability to achieve the Outcome 2 with no associated funding nor activities added at appraisal. When a large Trust Fund is available to support a reconstruction project, it is key to design the Trust Fund activities well including project modalities to maximize implementation efficiency and outcomes and justify such a design.
- **When implementing a project with a limited term agency, careful transition planning to hand over to the permanent agency is important so that the strengthened institutional capacities built by the are sustained**. In this project, the specific mandate of the NRA led to its success in implementing housing reconstruction. Its successor agency, NDRRMA, created in 2019, faced enormous challenge to work at the national, district and local levels. The NDRRMA implemented the remainder of the project and strengthened their own capacity by working with these various levels of government. The strategy demonstrated a key to sustaining institutional memory and ensure long-term resilience. The NDRRMA will need to maintain institutional memory, data, information, knowledge, management skills and contacts inherited from the NRA and bring them to the next level.
- **Social inclusion is key when designing housing reconstruction projects.** In this project, there was strong support for gender equality and social inclusion. Examples are the STAs, women masons, and "making home accessible to all" program, and policy actions. The STAs provided tailored supports to the most vulnerable households and beneficiaries (particularly the disabled households) during their housing reconstruction. Many woman masons trained with advanced construction skills; safer construction practices rebuilt many affected houses. Many masons received training on making homes accessible to all, which helped vulnerable-headed households retrofit their houses to be more accessible.
- **Disaster risk may be reduced by strengthening local government capacity and coordination between national and local governments.** In this project, the national federalization process gave local governments responsibilities in disaster risk reduction and management. This project invested substantial resources in capacity building for local governments and strengthened disaster risk management coordination and communication between the NDRRMA and local governments. At the same time, the project also built capacities of the NDRRMA to guide, coordinate, and engage with local governments. Since large scale disaster response, recovery, and rebuilding require synchronized efforts at both central and local government levels, strengthening local government capacity and coordination between national and local governments helps reduce disaster risk.

IEG added the following lesson:

- **Projects that include housing reconstruction for low-income households could benefit from considering affordability of these investments for such households.** In this project, the housing reconstruction grant provided about 1/3 of the construction cost and the participation by low-income households in the project led to their increased exposure to higher indebtedness or some were reported to have resorted to selling assets to participate in the program. There is also the risk that some low-income households may be compelled to sell their houses. It is important to consider in project design that the low-income households could afford their share of reconstruction costs.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR followed the guidelines and provided a clear overview of how this project was to co-finance the EHRP parent project. The narrative and quality of available evidence were internally consistent to support the ratings, particularly the housing reconstruction component. The EHRP MIS system provided evidence for project outcomes, particularly the housing reconstruction component of the PDO. The report was candid, acknowledging shortcomings, for example, the design and implementation of the M&E system as it applied to PDO 2, the lack of results indicators in the results framework, and remaining to be unaddressed at supervision. The ICR was focused on results and highlighted the outcomes of multi-hazard resilient houses and making these accessible as well. The ICR and the annexes reinforced the project achievements. Annex 4 provided additional justifications of the project's efficiency, outlining "with" and '"without the project" arguments, and using the "avoided damages" and "avoided fatalities" approach that was used in the Istanbul Seismic Risks Mitigation and Emergency Preparedness Project ICR. Lessons were based on the operation, including strengthening the design of disaster resilient housing by adding social inclusion (handicap accessibility).

a. Quality of ICR Rating

Substantial