Report Number: ICRR0023636

1. Project Data

Project ID	Project Name
P158194	Flood and Landslide Emergency Recovery C
Country	**Practice Area(Lead)**
Myanmar	Urban, Resilience and Land

L/C/TF Number(s)	Closing Date (Original)	Total Project Cost (USD)
IDA-58890	31-Dec-2021	37,152,225.17
Bank Approval Date	**Closing Date (Actual)**	
14-Jul-2016	31-Dec-2021	

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	200,000,000.00	0.00
Revised Commitment	46,749,254.67	0.00
Actual	37,152,225.17	0.00

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

a. Objectives

According to the Project Appraisal Document (PAD) (p. iii) and the Financing Agreement of November 25, 2015 (p. 4) the objective of the project was “to support the recovery in priority areas affected by the 2015 floods and landslides in Myanmar and, in the event of another Eligible Crisis or Emergency, to provide immediate and effective response to said Eligible Crisis or Emergency”.

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

No

c. Will a split evaluation be undertaken?

No

d. Components

The project included five components:

Component 1: Resilient Rehabilitation of National Roads (appraisal estimate US$105.0 million, actual US$4.31 million): This component was to finance the climate-resilient rehabilitation of

damaged national road infrastructure. The following activities were to be financed: i) rehabilitating national roads and bridges; ii) elevating of flood-prone road sections, drainage improvement, slope stabilization, landslide protection, and bio-engineering techniques; iii) building capacity of the MOC in supervision and quality control; and iv) providing technical assistance for design, supervision, and quality assurance for the investments.

Component 2: Resilient Rehabilitation of Rural Roads and Livelihoods Support (appraisal estimate US$70.0 million, actual US$18.28 million): This component was to finance i) rehabilitating rural roads that were destroyed during the floods, ii) supporting livelihoods and creating jobs through the use of labor-intensive works, where appropriate; iii) building capacity of the DRD in supervision and quality control; and iv) providing technical assistance for surveys and road designs as well as quality control and supervision of works.

Component 3: Provision of Eligible Goods (appraisal estimate US$15.0 million, actual US$12.40 million): This component was to finance the recovery of the agriculture, fisheries, and livestock sectors through essential goods for farm households from disaster affected regions and states, including storage and construction materials, vehicles, medicines, small industrial machinery, seeds, animal feed, and fuel products.

Component 4: Project Management and Knowledge Support (appraisal estimate US$10.0 million, actual US$2.16 million): This component was to finance" i) providing project management including financial management, procurement, capacity-building, coordination, provision of implementation expertise, preparation, and monitoring of safeguards instruments, monitoring and evaluation; ii) developing studies on strengthening disaster and climate resilience and improving road maintenance and technical capacity building for government staff at the national and local levels and for local contractors as well as a Strategic Maintenance Framework for roads and bridges.

Component 5: Contingent Emergency Response (appraisal estimate zero, actual zero): This component was to allow for a reallocation of credit proceeds from other components to provide emergency recovery and reconstruction support following any future eligible crisis or emergency.

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

Project Cost: The project was estimated to cost US$200.0 million. Actual cost was US$37.15 million.

Financing: The project was financed by a US$200.0 million IDA credit of which US$37.15 million disbursed. In February 2021, the country went through a military takeover resulting in the disbursement of the Bank's portfolio being paused. The project did not resume implementation before its closing in December 2021.

Borrower Contribution: It was not planned for the Borrower to make any contributions.

Dates:

- On March 17, 2020, the project was restructured to extend the timeline for the submission of audit reports from six to nine months.
- In July 2020, the government requested the project to be restructured to allow for: i) an extension of the loan closing date by 23 months to allow for the completion of the construction of 90 miles of road between Kalay and Hakha in Chin State which had been delayed due to significant social and environmental impacts; ii) amend the PDO to remove the reference to the 2015 flood to allow flexibility to respond to subsequent floods; iii) amend the Results Framework. However, the restructuring was not completed before the project was paused in February 2021 and closed on December 31, 2021, its original closing date.

3. Relevance of Objectives

Rationale

Country and sector context. From July to September 2015, Myanmar's people and its economy were severely affected by floods and landslides. The disaster affected especially those who had already been poor before the disaster. Half of the most-affected 40 townships were in the two poorest states in Myanmar, Rakhine, and Chin, which had poverty rates of 78 percent and 71 percent, respectively.

Myanmar's transport infrastructure, which was of critical importance to the country's economic and social development, was extensively damaged by the flooding and landslides. Damages were mainly concentrated in Chin, Sagaing, and Rakhine states, representing nearly 60 percent of the total damage and loss in the transport sector. At the time of appraisal, 40 percent of Myanmar's population lived in villages without access to the most basic transport links, an all-season road. Much-needed reliable transportation links were one reason for low agricultural productivity and limited access to social services.

In August 2015, the Recovery Coordination Committee (RCC) was formed by the Government and tasked to manage the recovery planning and implementation. However, financial constraints and the change of government affected the recovery process.

Alignment with the Government Strategy. Project activities supported the Myanmar Sustainable Development Plan (2018-2030), especially strategy 3.6 ("build a priority infrastructure base that facilitates sustainable growth and economic diversification by financing roadworks and drainage activities" and strategy 5.2 ("increase climate change resilience, reduce exposure to disasters and shocks while protecting livelihoods, and facilitate a shift to a low-carbon growth pathway, indicated by its response to an emergency and its forward-looking approach to climate resilience and preventing future disasters"). However, the objective of the project was not articulated at a level consistent with the Sustainable Development Plan since it did not mention infrastructure or climate resilience/disaster exposure. Furthermore, the objective of the project supported the government's 2017-2030 National Strategy for Rural Roads and Access, which aims to implement all-season roads or 80 percent of all registered villages in every state by 2030.

Alignment with the World Bank Strategy. The objective of the project was in line with the Bank's most recent Country Partnership Framework (FY20-23), which emphasized the importance of the relationship between improving access to infrastructure (focus area 1) and strengthening the resilience of vulnerable communities against climate change and natural disaster risks (focus area 3). Also, the objective of the project was in line with the Bank's Strategy for Fragility, Conflict and Violence (FCV) (2020-2025) and its fourth pillar (mitigating the spillovers of FCV by addressing spillovers such as forced displacement and shocks resulting from climate and environmental changes.

Overall, while the project activities were reasonable, there was a disconnect between the activities and the objective which was not articulated in terms of outcomes. The objective did not include framing the restoration of transport services and disaster resilience of transport infrastructure, both of which were supported by the project components. Therefore, the relevance of the objective is rated Substantial.

Rating

Substantial

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

Support the recovery in priority areas affected by the 2015 floods and landslides in Myanmar

Rationale

Theory of Change: The project's theory of change stated that project outputs such as the rehabilitation and maintenance of selected segments of national and rural road infrastructure in a climate-resilient manner, provision of TA and equipment for the development of geologic and hydrologic surveys and detailed engineering designs, as well as provision of eligible goods for emergency response efforts and for flood-affected households, and provision of other institutional capacity building efforts. These outputs were to result in outcomes such as improved climate resilience of roads, improved connectivity, restored access to markets, and restored livelihoods.

The theory of change was sound and logic.

Outputs:

- 60 kilometers of road (rural/non-rural) were rehabilitated, not achieving the target of 555 kilometers.
- The target of disaster- and climate-resilient design standards for national roads being improved/developed was not achieved.

- The target of 300 kilometers of rural road being maintained was not achieved.
- Goods were procured and distributed as outlined in the Contingent Emergency Response Implementation Plan (CERIP), achieving the target of being procured and outlined in accordance with the plan. Goods included storage and construction materials, vehicles, medicines, small industrial machinery, seeds, animal feed, and fuel products to support livelihood restoration, rehabilitation of small-scale water supply, and the urgent restoration of connectivity to affected communities. US$12.4 million out of the planned US$15 million of financing was disbursed for eligible goods.
- 90 percent of grievances registered related to delivery of project benefits were addressed, not achieving the target of 95 percent.
- The project provided technical assistance including a landslide susceptibility analysis by the European Space Agency.
- The project introduced new technologies in Myanmar's transport and information and communication technology (ICT) sectors. The project supported technologies such as a pilot using plastic waste in asphalt mixes for pavement rehabilitation works and the use of machine-laid surface dressing or premix asphalts as alternatives to the hand-laid and polluting penetration macadam.
- The project promoted e-governance in construction of roadworks through the use of drone and Open Data Kit technology, which improved construction monitoring and allowed for remote supervision.
- Capacity building and training were provided to implementing agencies including on the use of CERCs, monitoring and evaluation (including remote supervision), asset management, procurement and financial management, and safeguards compliance (including gender-based violence and GRM), and the IRM financing, including use of procured items. At least 40 training sessions were conducted on procurement, financial management, and safeguards compliance at the PIU-level (Department of Highways and Department of Rural Road Development) for 79 participants (45 men, 34 women) in six locations. In addition, 90 technical engineers in six locations received construction monitoring and supervision training, including safeguards compliance. Training was maintained during COVID-19 through virtual trainings. This training/capacity building related events had no targets.
- Labor intensive work programs generated 89,020 workdays, not achieving the target of 865,000 workdays. Women generated 14 workdays, not achieving the target of 50 workdays.

Outcomes:

- The project benefited a total of 59,468 beneficiaries, not achieving the target of 1,154,000 beneficiaries.

The project was not able to support the recovery in priority areas affected by the 2015 floods and landslides in Myanmar because it was able to deliver only a small fraction of its intended outputs. Also, the outcome was only measured through a corporate Bank indicator which is required for all Bank operations. The project did not assess the targeted outcomes of improved climate resilience of roads, improved connectivity, restored access to markets, or restored livelihoods.

Overall, the achievement of this objective was Negligible.

Rating
Negligible

OBJECTIVE 2

Objective

In the event of another Eligible Crisis or Emergency, to provide immediate and effective response to said Eligible Crisis or Emergency

Rationale

The Contingent Emergency Response Component was not triggered.

Rating

Not Rated/Not Applicable

OVERALL EFFICACY

Rationale

The project was able to barely achieve the objective of supporting the recovery in priority areas affected by the 2015 floods and landslides in Myanmar. Therefore, the overall efficacy rating is Negligible.

Overall Efficacy Rating	Primary Reason
Negligible	Low achievement

5. Efficiency

Economic efficiency:

The PAD (p. 13) conducted a traditional economic analysis based on the work plan for the national road rehabilitation plans in Chin State (192 km), Rakhine State, and Ayeyarwady Region (80 km) and the rural road rehabilitation plan. The major economic benefits of the project considered were the direct income impact from the project's activities and travel time saving benefits to passengers. Applying a discount rate of six percent and covering a period of 10 years (2017-2026) and using the standard conversion factor (SCF) of 0.828 for national roads and 0.879 for rural roads, the Economic Internal Rate of Return (EIRR) was calculated at 15.40 percent and the Net Present Value (NPV) was US$24.12 million, indicating that the project was a worthwhile investment.

The ICR (para. 16) applied the same methodology as the PAD with updated costs, which resulted in an EIRR of 1.41 percent and a NPV of US$1.80 million. These results were significantly lower than the expected rate of return during project preparation due to the low level of benefits that the project was able to generate. Under component 1 (US$4.31 million was disbursed) the project generated fewer benefits from the drainage improvements since it only installed culverts. Under component 2 (US$18.28 million) the project only financed short segments of roads benefitting fewer beneficiaries than planned. This analysis indicates that, in retrospect, the project investment was not worthwhile, because of the incomplete implementation of the project driven largely by the military takeover.

Operational efficiency:

The project's actual disbursement was only US$37.15 million, 18.6 percent of total planned financing. Due to the project's staged design, the first 18 months of project implementation were only used for the selection of works and implementation of smaller-scale activities. The project also experienced several implementation delays due to the political changes, weather events, procurement, financial management and safeguard related issues, and the COVID-19 pandemic.

Overall, the project's efficiency was Negligible.

Efficiency Rating

Negligible

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	✓	15.40	87.50 ☐ Not Applicable
ICR Estimate	✓	1.41	60.80 ☐ Not Applicable

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

6. Outcome

The relevance of the objective was Substantial , and the objective could have been better articulated in terms of specific outcomes. Efficacy and Efficiency were Negligible. The overall outcome rating was Highly Unsatisfactory, indicating severe shortcomings in the operation's achievement of its objectives and its efficiency.

a. Outcome Rating

Highly Unsatisfactory

7. Risk to Development Outcome

The project's risks to development outcome can be classified into the following categories:

Government ownership/commitment/political: According to the ICR (para. 79) armed conflicts and violence are still ongoing in the project's geographic area, and it is not clear when this violence will come to an end. It is not clear to what extent the current government is interested in developing infrastructure in the country.

Financing: Given the political situation, there is no follow-on project/financing to continue the rehabilitation and maintenance of infrastructure in the country in the pipeline. Given the economic situation of Myanmar, it is unlikely that there is sufficient budget to ensure adequate maintenance of the infrastructure built under the project.

Technical capacity: While the project was able to build technical capacity, the ICR (para. 79) stated that sustaining this capacity might be challenging given the significant staff turnover because of the political situation and the lack of a technical support network.

8. Assessment of Bank Performance

a. Quality-at-Entry

According to the PAD (p. 10) the project design was built on lessons learned including: i) streamlined institutional and implementation arrangements are critical in preparing emergency projects; ii) enhancing disaster and climate resilience of the infrastructure to be rehabilitated is a priority; iii) well-maintained rural roads can provide a cost-effective and sustainable solution to rural access; and iv) road rehabilitation should take into account a variety of pavement designs.

The ICR (para. 72) stated that the Bank team included experts from all relevant sectors, which worked with other development partners to ensure synergies and avoid duplication.

The Bank team identified relevant risks and rated the following as High: i) political and governance due to the fragility of the reform process and limited government experience with development partners such as the Bank; and ii) fiduciary and institutional capacity due to limited capacity in procurement, governance, safeguards, and fiduciary as well as no prior experience in implementing a Bank project. According to the PAD (p. 12), mitigation measures were to include regular discussions with the government, key stakeholders, and DRM champions to ensure continuity and prioritization of the recovery efforts as well as building fiduciary and institutional capacity. Mitigation measures were not sufficient, and the project experienced several implementation challenges related to financial management and procurement. The project would have benefitted from the Bank providing fiduciary training before the start of project implementation. Furthermore, the Bank team did not identify the risk of adjacent government and state-financed roadworks being subject to the Bank's environmental and social safeguard policies resulting in implementation delays. It should have communicated this possibility to the government upfront rather than have it arise unexpectedly during implementation.

The project's Results Framework had significant design shortcomings such as the PDO indicators being formulated on the output level rather than the outcome level and several activities not being measured (see section 9a for more details).

Quality-at-Entry Rating
Moderately Satisfactory

b. Quality of supervision

According to the ICR (para. 74) the Bank team conducted a total of eight supervision missions between project effectiveness in February 2017 and before the project was paused in February 2021, ensuring continuous supervision. Also, the Bank team provided training and built capacity in disaster risk management within the government.

The ICR (para. 75) stated that the project's Task Team Leader led the Immediate Response Mechanism (IRM) within the Bank and coordinated with other implementing agencies and development partners.

The project's Implementation Status Rating (ISR) was not sufficiently candid and should have been downgraded to Moderately Satisfactory given the project's safeguard and procurement issues which resulted in implementation delays. Also, the project's M&E would have benefitted from updating the targets for the Results Framework once the sub-projects were identified.

Quality of Supervision Rating
Moderately Satisfactory

Overall Bank Performance Rating
Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The project's objective was clearly specified. Also, the project's theory of change and how key activities and outputs were to lead to the intended outcome was sound. The Results Framework included a limited number of PDO and intermediate outcome indicators (three PDO indicators and six intermediate outcome indicators). The selected indicators were measurable and sufficiently specific. However, the PDO indicators were formulated on the output rather than the outcome level. Also, the project did not include outcome indicators to assess the targeted outcomes of improved climate resilience of roads, improved connectivity, restored access to markets, or restored livelihoods. Alternative indicators that are more outcome oriented could have been: days per year of avoided road network disruption or increased road life span), Furthermore, the selected indicators did not reflect all project outputs such as the Information and Communication Technology (ICT), e-governance pilot as well capacity building within the government. Due to the project's staged approach, it was difficult to define the indicator targets during project preparation.

According to the PAD (p. 11) the Project Secretariat at the MOC was to be responsible for the project's M&E.

b. M&E Implementation

According to the ICR (para. 61) an M&E system was developed during the first year of project preparation. ICT systems were used to monitor works and a digital monitoring system was established. The CIUs, with the support of the Bank team and consultants, collected, analyzed, and reported data. Also, consultant trained government staff in M&E activities. During the COVID-19 pandemic, the project trained contractors in virtual supervision technology and as a result provided biweekly drone videos, open data kit photographs as well as progress reports.

The project's Results Framework would have been changed during the requested restructuring July 2020, which did not materialize before the project was paused in February 2021 and subsequently closed in December 2021.

According to the Bank team (October 10, 2023) M&E data was found to be reliable and supported by remote supervision tools (i.e., drone and visual supervision technology) for physical investments. International and local consultants hired under the project assisted M&E and construction supervision and were helping verify progress of works until time of the military takeover.

c. M&E Utilization

According to the ICR (para. 63) the project's M&E data and progress reports were used to identify and address implementation bottlenecks. Also, the progress reports supported discussions between the Bank team and the CIUs especially those related to delays in contracts processing as well as developing CAPS and restructuring the project.

M&E Quality Rating

Modest

10. Other Issues

a. Safeguards

The project was classified as category B and triggered the Bank's safeguard policies OP/BP 4.01 (Environmental Assessment), OP/BP 4.04 (Natural Habitats), OP/BP 4.36 (Forests), OP/BP 4.10 (Indigenous People), OP/BP 4.11 (Physical Cultural Resources), and OP/BP 4.12 (Involuntary Resettlement). According to the ICR (para. 64) the project developed a Resettlement Policy Framework (RPF) and an Ethnic Minority Planning Framework (EMPF). The ICR stated that lateron, an Abbreviated Resettlement Action Plan (ARAP), a Resettlement Corrective Action Plan (CAP), and Chin State CAP were developed for investments within Chin State. Furthermore, the project prepared an Environmental and Social Impact Assessment (ESIA), an Environmental and Social Management Plan, and Environmental Codes of Practice.

The project experienced safeguard related challenges regarding widening the 90 miles Kalay-Hakha Road, for which construction had already started before project appraisal. The ICR (para. 65) stated that the government assumed that the Bank's safeguard policies would not apply to the parts of the road that were not financed by the Bank. The Bank understood that these parts of the road were linked to the project and were as a result subject to the Bank's safeguard policies. Therefore, the Bank cancelled the subproject and was to allocate the financing to other roads under the project which resulted in criticism by civil society organizations and local media. The Bank agreed with the government to finance the road and a CAP including a list of actions was developed. Also, a backward-looking ESIA was prepared in addition to safeguard documents as a condition to resume works. In February 2020, the Bank team found that related project activities were only in partial compliance with the agreement's environmental and social safeguards.

According to the ICR (para. 66) the project also experienced safeguard compliance issues related to an unplanned resettlement of a family. The issue was not successfully solved before February 2021. Overall, safeguards monitoring and reporting by the DOH were limited. Also, project activities were implemented without screening and planning of mitigation activities. When the project closed, the safeguard performance rating was Moderately Unsatisfactory.

According to the ICR (para. 68) the project developed a Grievance Redress Mechanism (GRM) which was built on existing local institutions at the village committees/township levels. Component Implementation Units (CIUs) were responsible for implementing the GRM. The Mid-Term Review (MTR) found that there was a need to proactively inform communities how to use the GRM mechanism. The GRM received grievances in Chin, Rakhine, Sagaing, and Ayeyarwady. When the project closed, 90 percent of grievances were solved.

b. Fiduciary Compliance

Financial Management:

According to the ICR (para.69) the project complied with the Bank's Financial Management (FM) procedures. However, the project experienced several FM related issues such as lengthy approval processes, limited technical capacity, and high staff turnover. In general, the Interim Financial Reports (IFRs) were submitted in a timely manner. The DoH and DRRD did not perform internal audits throughout implementation. During the MTR the Bank team identified several shortcomings related to FM such as high variances between budget and actual expenditure because the departments were unable to spend their annual budgets when planned activities were not implemented. Both departments agreed to revise their component annual work plans and budgets when they foresee that activities cannot be implemented within a planned time frame. Also, the Bank team worked with the departments to monitor the budget of each works contract and reallocate funds when needed.

According to the Bank team (October 10, 2023) the external auditor's opinions were unqualified.

When the project closed the project's FM performance was rated Moderately Satisfactory.

Procurement:

According to the ICR (para. 70) the project followed the Bank's procurement guidelines. The Department of Rural Road Development was to conduct the project's procurement function at the national level for the first 18 months of project implementation. This was to give state/regional staff time to receive procurement training before the project's procurement function was to be decentralized. However, the training of staff took longer than planned and the project's procurement function was not decentralized before February 2021. Also, the project experienced procurement related implementation delays due to the COVID-19 pandemic as well as the highly centralized approval process and contract registration.

The project's procurement rating was mostly Moderately Unsatisfactory throughout implementation due to long delays in the procurement of large civil works resulting from the cancellation of the bidding process for an international Detailed Design and Supervision consultant.

According to the ICR (para. 70) despite these challenges, the implementing agencies demonstrated growing procurement capacity.

c. Unintended impacts (Positive or Negative)

NA

d. Other

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11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Unsatisfactory	Highly Unsatisfactory	Substantial Relevance of Objective and Negligible Efficacy and Efficiency.
Bank Performance	Moderately Satisfactory	Moderately Satisfactory	
Quality of M&E	Modest	Modest	
Quality of ICR	---	Substantial	

12. Lessons

The ICR (p. 28-29) included several useful lessons learned, which were adapted by IEG:

- **In the case of an emergency, countries benefit from simple Bank procedures that allow the Bank to respond quickly.** In this project, the IRM mechanism was too complex to be implemented effectively. Slow procurement resulted in goods and equipment being procured for 18 months, not allowing to provide support for the 2015 flood response.

- **Communicating with other development partners about the Bank's safeguard policies is critical to ensure compliance and avoid implementation delays.** In this project, the national road to be rehabilitated as fast as possible in Chin State was critical for residents. As a result, the government used other donor financing to start the rehabilitation. However, the Bank determined that the rehabilitation was linked to the planned project-financed works and was subject to the Bank's safeguard policies, resulting in significant implementation delays since corrective action plans needed to be developed before implementation could continue.
- **When FCV tools within the Bank are not available to the project team, providing adequate resources to enable third-party execution to facilitate implementation can be positive for project implementation.** In this project, the team could not benefit from certain Bank tools such as the Hands-on Expanded Implementation Support (HEIS) and FCV advisers, which might have benefitted project implementation.

A lesson added by IEG:

- **An insufficiently outcome-oriented objective can contribute to failing to choose outcome-oriented indicators that allow for measuring outcomes achieved.** In this project, the very output-oriented objective contributed to the difficulty of indicators not measuring outcomes since the objective did not signal that those outcomes were important.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR provided an adequate overview of project preparation and implementation and included a traditional economic analysis. Also, the ICR included very useful lessons learned that might be applicable for future Bank engagement in this sector and the FCV setting. The ICR was internally consistent and concise. Finally, the ICR would have benefitted from providing more data on what achievements the project was able to make in terms of capacity building and goods procured under component 3. Overall, the quality of the ICR is rated as Substantial.

a. Quality of ICR Rating
Substantial