



Report Number: ICRR0022821

1. Project Data

Project ID

P090990

Project Name

Western Indonesia National Roads Improv.

Country

Indonesia

Practice Area(Lead)

Transport

L/C/TF Number(s)

IBRD-80430

Closing Date (Original)

31-Dec-2017

Total Project Cost (USD)

223,780,891.76

Bank Approval Date

26-May-2011

Closing Date (Actual)

30-Jun-2021

IBRD/IDA (USD)
Grants (USD)

Original Commitment

250,000,000.00

0.00

Revised Commitment

228,000,000.00

0.00

Actual

224,160,404.03

0.00

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2. Project Objectives and Components

a. Objectives

The original Project Development Objective (PDO) as stated in the Loan Agreement dated December 14, 2011 (Schedule 1, page 5) and in the Project Appraisal Document (PAD, page 4):

" To increase the effective use of selected sections of national roads along the Western Sumatera corridor by reducing road user costs."



Revised PDO (following earthquakes and tsunamis in the island of Sulawesi in December 2018):

" To increase the effective use of selected sections of national roads along the Western Sumatera Corridor by reducing road user costs and to restore the functionality of selected sections of national and sub-national roads in disaster-affected areas in Central Sulawesi."

This review is based on the following PDOs:

1. To increase the effective use of selected sections of national roads along the Western Sumatera Corridor by reducing road user costs.
2. To restore the functionality of selected sections of national and sub-national roads in disaster-affected areas in Central Sulawesi.

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

Yes

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

Yes

Date of Board Approval

12-Apr-2022

c. Will a split evaluation be undertaken?

No

d. Components

There were four components (PAD, pages 4 - 5).

1. Betterment and capacity expansion of national roads. The estimated cost at appraisal was US\$314.9 million. The actual cost was US\$253.3 million. Activities in this component were: (i) Betterment of national roads (betterment in the Indonesian context typically involved base course strengthening, minor widening, new asphalt wearing course and improving drainage); and (ii) capacity expansion of about 715.6 kilometers (km) of national roads and replacement of about 194 meters (m) of bridges.

The scope of this component was reduced with the targets for roads to be improved reduced from 715.6 km to 578 km and that for bridges from 194 m to 160 m through the second project restructuring (discussed in section 2e).

2. Implementation Support. The estimated cost at appraisal was US\$16.0 million. The actual cost was US\$14.2 million. This component planned to provide implementation support to the Ministry of Public Works (MPW). Activities in this component were: (i) financing the core team (design and supervision consultants) and road safety audits; and (ii) project management support and support for technical audits.

3. Road Sector Institutional Development. The estimated cost at appraisal was US\$1.0 million. The actual cost was US\$0.0 million. Activities in this component were: Technical assistance and capacity



building support to strengthen disaster risk mitigation in the road sector, including support to the newly-formed environment risk mitigation and road safety unit of the Directorate General of Highways (DGH) in the MPW for conducting disaster risk assessments and planning, risk mapping of landslides, coastal erosion, earthquakes and floods, and analysis of alternate designs for road segments that passed through critical and vulnerable areas.

This component was cancelled with the first project restructuring (discussed in section 2e).

4. Contingency for Disaster Risk Response. A provisional zero dollar component was included under the project for rapid reallocations of loan proceeds in the event of an emergency, under streamlined procurement and disbursement procedures. In addition to reallocating funds from other components, the contingent component could serve as a conduit for additional funds to be channeled to the project. The component was triggered during implementation. The actual cost of this component was US\$18.9 million.

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

Project cost. The estimated cost at appraisal was US\$350.0 million (inclusive of physical and price contingencies). The actual cost was US\$286.5 million.

Project financing. The project was financed by an IBRD loan of US\$250.0 million. The actual amount disbursed was US\$228.0 million. Unused loan proceeds of US\$22.0 million (due to the depreciation of the Indonesian Rupiah (INR) since signing of the loan agreement), were cancelled. In addition, US\$31,807 was refunded by the Government due to an ineligible expenditure observed by the Audit Board and the Financial and Development Supervisory Agency on December 13, 2021.

Borrower contribution. The Borrower contribution was estimated at US\$100.0 million at appraisal. Their actual contribution was US\$62.6 million.

Dates. The project approved on May 26, 2011, became effective on March 12, 2012, and was scheduled to close on December 31, 2017. However, the project closed three and half years behind schedule on June 30, 2021 for reasons detailed below.

Other changes. There were four project restructurings during the project lifetime.

The Bank supported the following changes through the **first project restructuring on February 23, 2016**.

- The institutional strengthening activity was dropped. The Directorate General of Highways (DGH) Sub-directorate of Road Environmental and Safety was newly created when this project was prepared. Since its inception, that Unit was growing, receiving more visibility, and carrying out capacity building and technical assistance on disaster risk management (DRM). Since they had local resources for their work, it took DGH until the end of 2014 to come up with the terms of reference for activities under component three, which were a continuation of the work they had been doing. When the procurement started, a new Minister questioned the rationale for using the loan proceeds for activities they had been financing on their own. Consequently DGH cancelled the component three activity.
- An additional activity of slope protection management was added as the DGH had limited experience in this area.



- Funds were reallocated between categories.

The following changes were made with the **second project restructuring on November 23, 2017**.

- The target for rehabilitation of roads and bridges was reduced, as these road links were resurfaced with local funds and reported to be in good condition.
- The closing date was extended by a year from December 31, 2017, to December 31, 2018 for completing the delayed project activities.

The following major changes were made with the **third project restructuring on December 21, 2018**.

- Following the devastating earthquakes and tsunamis that struck the Sulawesi island in September 2018, the Bank, at government request, activated the component four activity (contingency for disaster risk). This enabled the rapid allocation of unused loan proceeds to rehabilitate and reconstruct the damaged road sections in Sulawesi island.
- The closing date was extended by twenty six months from December 31, 2018, to February 28, 2021, for completing the activities in Sulawesi island.

The following changes were made with the **fourth project restructuring on February 21, 2021**.

- The closing date was extended by four months from February 28, 2021, to June 30, 2021, for completing the activities in Central Sulawesi that had been delayed due to the restrictions in the wake of the COVID-19 pandemic.
- Unused loan proceeds of US\$22.0 million due to the depreciation of the INR were cancelled.

Split rating. This review is not based on a split rating of objectives. The first PDO remained unchanged, and the original design had provisions for contingency for disaster risk management (although no funding had been allocated to this component at appraisal). This component was triggered in the wake of the earthquakes and tsunamis that struck Central Sulawesi. Although the km of roads to be improved were significantly reduced, additional activities were added in the wake of the earthquakes and tsunamis that struck Central Sulawesi, and part of the unused loan was diverted for undertaking the additional activities. Given that the additional PDO was a reflection of the activities that were added during implementation, a split rating was not deemed to be necessary.

3. Relevance of Objectives

Rationale

Country and sector context. The road mode accounts for about 70% of domestic freight and 82% of interurban passenger land travel in Indonesia. Although the overall density of the road network in Indonesia, at 14.95/10,000 population, ranked well against other Asian countries, the spatial road density at 0.185 km per square km was low due to the regional disparities in population density and other characteristics that existed among the main island groups. Analysis at appraisal suggested that when viewed against economic activity, although the road network was adequate in sparsely populated areas, it was inadequate in areas of high economic activity, such as Java and Western Sumatera. Further, road



travel speeds were low, averaging 42 Km/hour on the national road network. The low speeds were a reflection of poor geometric road standards, poor traffic management, and other land use issues along the roads right of way. To keep pace with the rising demand, road capacity, traffic management and land use management were required in areas of high economic activity.

The West Coast corridor that traverses through Sumatra, was undergoing an agricultural and industrial transformation in the years before appraisal. A number of its road sections were relatively narrow, 4.5 meters wide and had reached their capacity. The provinces on the West Coast of Sumatra, including Northern Sumatra were also vulnerable to earthquakes. The September 2009 earthquake in Western Sumatra caused significant damage to infrastructure. More importantly, the collective damage to national, provincial and district roads interrupted connectivity and isolated many areas for several days. The PDO of increasing the capacity of the road on the West Coast of Sumatra and adopting disaster risk management measures was important to the Government strategy.

Government strategy. The PDO was well-aligned with two priorities of the Government's Medium-Term Development Plan for 2020 - 2024, namely: (i) *Strengthening Infrastructure to support economic development and basic services*; and (ii) *Developing regions to reduce inequality*. The Government included disaster management in the Medium-Term Development Plan for 2010 - 2014, and subsequently launched the National Action Plan for Disaster Risk Reduction.

Bank strategy. The PDO is well-aligned with the Bank strategy. At appraisal, the core engagement area two of the Country Partnership Strategy (CPS) for 2009 - 2012 specifically referenced infrastructure development, and articulated the need for supporting institutions, both public and private, in finding ways to bridge the infrastructure financing gap, and strengthening the accountability and capacity of institutions to deliver better outcomes. For the road sector, the CPS highlighted the need for strengthening the institutional framework at the national and regional levels in the areas of fiduciary, operational and technical management systems. The Bank's current Country Partnership Framework (CPF) for 2021 - 2025 recognized that the road infrastructure was "*uneven and that accessibility to some remote areas remained low, leading to high poverty and unemployment in those regions*". The engagement pillar two of the CPF articulated the need for "*improving infrastructure for easing regional disparities and promoting inclusion*".

Previous Bank experience. The Bank has financed several roads projects in Indonesia, including through the Infrastructure Development Policy Loan (IDPL) series, phase one and two of the Eastern Indonesia National Roads Improvement Project (EINRIP), and when this project was prepared was financing the ongoing Strategic Roads Infrastructure Project (SRIP). The design of this project was similar to those of the ongoing projects.

However, considering a continuous engagement of the Bank in the road sector in Indonesia, the PDO was output-oriented and not pitched to address a specific development challenge. The PDO does not mention the institutional dimension of the project. Although the PDO was well-aligned with the Government priorities and the Bank's current CPF, the relevance of the PDO is assessed as substantial, in view of the relatively low ambition of the PDO.

Rating

Substantial



4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

To increase the effective use of selected sections of national roads along the Western Sumatera Corridor by reducing road user costs.

Rationale

Theory of change. The outputs such as base course strengthening, minor widening, expanding capacity of national roads and bridges were aimed at improving the quality of the national road network on the Western Sumatera corridor. These activities along with the institutional strengthening of the MPW and the DGH for disaster risk mitigation were aimed at improving the condition of roads in the corridor. These activities were likely to aid in the long-term development outcome of improving connectivity and integration of the economy. The causal links between the project activities, outputs and outcomes were logical and the intended outcomes were monitorable. The theory of change however does not clearly define the "effective use of selected sections of national roads".

The theory of change is based on the following assumptions: (i) Contractors show an interest in bidding for road packages; (ii) procurement is done in a timely fashion; (iii) Technical assistance is provided to the DGH for disaster risk mitigation in the road sector; (iv) The technical design is of high-quality; and (v) The project management unit is established with sufficient capacity.

Outputs (ICR, pages 29 - 32).

- 578 km of national roads in Western Sumatra in the project region were improved as per the revised target (short of the original target of 715 km).
- 160 m of bridges were improved as per the revised target (short of the original target of 194 m).
- Five slope protection designs were completed, exceeding the target of three.
- 68 Technical and Financial Audit Consultant inspections were carried out in Western Sumatera. It is not clear if there were initially planned or carried out to response to the issues during implementation.
- Road safety measures were adopted in the road sections. These measures included; (i) enhancement of road alignment, especially in curve sections; (ii) adoption of additional road marking, traffic signs, guardrails and other road safety furniture; and (iii) construction of concrete shoulders. Technical and road safety audits for all the road packages were completed as targeted.
- 4,000 temporary jobs were provided on the road sites during implementation.

Outcomes (ICR, pages 8 - 9).

The outputs described above were expected to lead to the outcomes of: (i) increasing the Annual Average Daily Traffic (AADT) on the project roads (AADT defined as the simple average of the AADT on the nineteen project road sections); (ii) travel time changes for three types of vehicles (light vehicles, large buses and



heavy trucks); (iii) reduction in road user costs for selected vehicle categories (light vehicles, large buses and heavy trucks).

- The AADT on the selected sections of national roads on the Western Sumatra corridor increased from 7,505 at the baseline in May 26, 2011, to 14,490, slightly short of the revised target of 14,544. While the AADT on the selected road sections cannot be fully attributable to the project activities given the robust economic growth in Indonesia from 2010 to 2020, it is reasonable to assume that the project contributed to this outcome.
- The average vehicle operating cost (VOC) for a typical car along the corridor reduced by eight percent, as compared to the target of five percent. The average VOC for a typical bus reduced by 18 percent, as compared to the target of eight percent. The average VOC for a typical heavy truck reduced by fourteen percent, as compared to the target of ten percent.
- The average passenger travel time for light vehicles reduced by 21.11%, exceeding the target of 20%. The average passenger travel time for large buses reduced by 20.72%, exceeding the target of 20%. The average passenger travel time for heavy trucks reduced by 20% as targeted.
- About 4.2 million of people, people living in the vicinity of the four provinces in the island of Sumatra (North Sumatra, West Sumatra, Bengkulu and Lampung) are reported to have benefitted from project activities, exceeding the target of approximately four million people estimated at appraisal.

In sum, given that the outcomes were realized for the most part, efficacy of this objective is assessed as substantial.

Rating

Substantial

OBJECTIVE 2

Objective

To restore the functionality of selected sections of national and sub-national roads in disaster-affected areas in Central Sulawesi

Rationale

Theory of change. The outputs such as rehabilitation/reconstruction and maintenance of national and sub-national roads in the disaster-affected areas of the Central Sulawesi region were likely to restore their functionality. The causal links between the project activities, outputs and outcomes were logical and the intended outcomes were monitorable.

Outputs (ICR, pages 32 - 34).

- 48.39 km of national roads in the disaster-affected areas of Central Sulawesi were rehabilitated as per the revised target (short of the original target of 54.20 km).
- 23.57 of sub-national roads in Central Sulawesi were rehabilitated as per the revised target (short of the original target of 26.80 km).
- 31.67 km of roads in Central Sulawesi were provided with maintenance as targeted.



- 863 m of bridges were provided with maintenance in Central Sulawesi, slightly short of the original target of 899.5 m.
- Capacity building actions (such as trainings and workshops) and Technical and Financial Audit Consultant inspections were carried out in Central Sulawesi as targeted.

Outcomes (ICR, page 9).

The outputs described above were expected to restore the damaged roads to pre-disaster good road condition in Central Sulawesi.

- Twelve road infrastructure sections in the damaged areas of Central Sulawesi were restored to pre-disaster good road condition, as per the revised target. This exceeded the original target of five road infrastructure sections in the damaged areas of Central Sulawesi.

Given that the revised targets were met, efficacy of this PDO is assessed as substantial.

Rating

Substantial

OVERALL EFFICACY

Rationale

Overall efficacy is assessed as substantial, given that the revised PDOs were realized for the most part.

Overall Efficacy Rating

Substantial

5. Efficiency

Economic analysis. An economic analysis was conducted using the Highway Development and Management Model (Version 2.1) for component one activities. This component accounted for about 88% of the appraisal estimate and 85% of the actual cost. The methodology entailed comparing the situation predicted to occur with the project improvements (project case), and the situation if the project were not implemented (base case). The project benefits were assumed to come from the higher speeds on the improved roads. The total Net Present Value (NPV) at project closure was INR 6.036.15 billion, as compared to the NPV of 285.16 million at appraisal. The ex-post Economic Internal Rate of Return (EIRR) was 36.90%, as compared to the ex-ante EIRR of 29.90%.



Administrative and operational issues during implementation. There were several operational shortcomings. First, the project had slow start for a combination of factors including, delays in commencing the civil works activities due to the delays in hiring the project management support. coordination issues between the entities involved in project implementation, inadequate project ownership at all levels, land acquisition and preparation of Involuntary Resettlement Action Plans, delays with counterpart funding, and lengthy discussions on procurement aspects. Second, there were cost overruns, with the cost per km of the road packages 28% higher than the appraisal estimate. While the cost overruns were partly due to the adoption of new pavement design standards (which increased the pavement design life from ten to twenty years), other factors such as delays in the completion of bidding process and the low-quality of the original cost estimates played a part in contributing to the cost-overruns. Despite the cost escalation, some important activities (such as the institutional strengthening activities) were dropped; (iii) There were quality shortcomings in some road packages due to factors, such as sub-standard stone masonry, poor drainage systems, asphalt segregation, cracks and potholes. The ICR (paragraph 25) acknowledges that while most of the observed deficiencies were addressed during the defect liability period, some of them may persist. This raises questions about the sustainability of the outcomes; (iv) It is not clear if there was value for money for the US\$14.2 million spent for implementation support (component two activity); and (v) There were time over-runs, with the project closing three and half years behind schedule. While some of the delays were beyond the project control (such as due to the physical restrictions on movements due to the COVID-19 pandemic in the final year of the project), it is likely that the time overruns were partly due to the delays in the initial years of the project.

In sum, efficiency is assessed as modest, given the administrative and operational shortcomings during implementation.

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	✓	29.90	88.00 <input type="checkbox"/> Not Applicable
ICR Estimate	✓	36.90	85.00 <input type="checkbox"/> Not Applicable

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

6. Outcome

Relevance of the PDO to the Government and Bank strategies and efficacy of the two PDOs is assessed as substantial. Efficiency is modest, given the administrative and operational shortcomings during implementation. Taking these ratings into account, the overall outcome is assessed as moderately satisfactory.



a. Outcome Rating
Moderately Satisfactory

7. Risk to Development Outcome

Government commitment. There is substantial risk to the sustainability of the development outcome, as it is unclear whether there would be sufficient budgetary allocation for preserving the roads improved under this project (preservation refers to routine and periodic maintenance, minor and major rehabilitation and reconstruction works). The ICR (paragraph 62) observes that the 2020 World Bank Public Expenditure Review (PER) noted that although funding for road preservation has received a greater proportion of government spending in recent years, budgetary allocation was still insufficient when compared to the needs.

As noted in section five, the quality of some road packages of this project was sub-optimal. There is the risk that this may lead to relatively low life cycles and hence necessitate implementation treatments sooner than expected. Nevertheless, the decision to increase the pavement design life from 10 to 20 years will prolong the life cycles and mitigate the lower level of maintenance.

8. Assessment of Bank Performance

a. Quality-at-Entry

The Bank prepared this project based on the experiences from Bank-financed previous and ongoing road sector projects (discussed in section three). The major lessons incorporated at design: (i) Since the previous Bank-financed infrastructure-projects faced implementation delays due to the slow procurement process, the design aimed at timely engagement of the consulting services to confirm to the readiness of implementation (However, as discussed in section five, the issues were not fully resolved and there were procurement delays in the initial years of the project); and (ii) Since corruption was identified as an issue in the country context, implementing monitoring aspects of the Anti-Corruption Plan would mitigate the procurement-related corruption risk by using computerized reporting and tracking systems, e-procurement and a complaints handling mechanism.

The implementation arrangements proved to be more appropriate. This included: (i) the Directorate General of Highways (DGH) in the Ministry of Public Works (MPW) in charge of overall implementation; (ii) The Directorate of Planning (DOP) which had recently established a sub-directorate dedicated to the implementation of Foreign Loan projects, as the Project Management Unit (PMU) in charge of implementing the day-to-day project activities.

Several risks were identified at appraisal, including high risks with the weak implementation capacity of the PMU and corruption risk. Mitigation measures incorporated at design, included establishing Procurement Services Unit at the national, provincial and district levels, and developing an Anti-Corruption Plan. With mitigation measures, the overall project risk was rated as moderate at appraisal



(PAD, page 34). The arrangements made at appraisal for safeguards and fiduciary compliance led to a moderately satisfactory performance of these aspects (discussed in sections 9 and 10).

There were moderate shortcomings in quality-at-entry, including insufficient risk mitigation and road works design issues that led to numerous inefficiencies during the project implementation. There were also M&E design shortcomings (discussed in section 9a).

Quality-at-Entry Rating

Moderately Satisfactory

b. Quality of supervision

The ICR (paragraph 60) notes that supervision missions were held twice a year and twenty-two Implementation Status Results (ISR) Reports were prepared during the project lifetime. The supervision team effectively addressed most of the challenges during implementation. This included, restructuring the project in the wake of the devastating earthquakes that impacted the island of Sulawesi in September 2018, rectifying the deficiencies in M&E design (discussed in section 9b), mobilizing additional experts (road safety and gender specialists), mobilizing additional Trust Fund resources to bridge the knowledge gaps, building Government capacity for project management, and providing timely and comprehensive measures to address the fatal accident that occurred in 2019 (discussed in Section 10a).

There were moderate shortcomings in supervision. It is not clear from the ICR if the Bank was proactive enough in pushing for retaining the institutional strengthening component of the project or work around Operation and Maintenance (O&M) issues. Also, it is also not clear if the Bank did enough to address delays in the provision of counterpart funding.

In sum, overall Bank performance is assessed as moderately satisfactory for the shortcomings at Quality-at-Entry and at Supervision.

Quality of Supervision Rating

Moderately Satisfactory

Overall Bank Performance Rating

Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The results framework was logical and the key outcome indicators - the Average Annual Daily Traffic (AADT), changes in vehicle operating costs for selected vehicle categories (cars, buses and heavy trucks), travel time changes for three types of vehicles (cars, buses and trucks) and the direct project beneficiaries



were appropriate for monitoring PDO 1, which was output-oriented and pitched at a low level of the results chain. The selected indicators were largely standard variables used in the economic analysis.

There were some shortcomings in M&E framework. One, the methodology for collecting data for AADT was not clearly specified at appraisal and two, there were no appropriate indicators for monitoring the institutional dimension, the quality of the road network or the road safety aspects of the project.

b. M&E Implementation

The methodology for collecting data on AADT was specified during implementation. Following the triggering of the disaster risk management component of the project, indicators were specified for monitoring the quality of roads. The ICR (paragraph 46) notes that the Project Management Unit (PMU), which was responsible for collecting data on travel times, updated the data on a semi-annual basis. The data for monitoring AADT were monitored by the DGH regional offices through traffic surveys. It was envisioned at design that this project would be one of the projects to pilot an Information Technology (IT)-based National Road Project Monitoring System (SIPP) being developed by the MPW at appraisal. The ICR notes, however, that while the SIPP was adopted and active, it was not used for this project.

c. M&E Utilization

The ICR (paragraph 48) observes that the M&E findings were regularly shared with stakeholders. The ICR also notes that since the M&E arrangements under the project were specific to the project and were not institutionalized, it is unlikely that their use will persist beyond the project completion.

While some of the M&E shortcomings in design were corrected during implementation, the new indicators were output-oriented, and did not provide sufficient value in understanding what development outcomes were realized.

M&E Quality Rating

Modest

10. Other Issues

a. Safeguards

The project was classified as a Category B (partial assessment) project under the World Bank safeguard policies. Three safeguard policies were triggered at appraisal: Environmental Assessment (OP/BP 4.01); Physical Cultural Resources (OP/BP 4.11); and Involuntary Resettlement (OP/BP 4.12). (PAD, Data Sheet). No other safeguard policies were triggered during implementation.

Environmental Assessment and Physical Cultural Resources. The PAD (paragraphs 51 and 52) observed that the environmental impacts of the civil works activities were expected to be related to construction-related impacts. These were expected to occur mostly along the alignment of the selected road segments, with some impacts potentially occurring at offsite locations (such as quarry sites and spoiled



material disposal sites). The safeguards for physical cultural resources was triggered as graves and cemeteries could be affected. An Economic and Social Management Framework (ESMF) was prepared and publicly-disclosed at appraisal to address these issues.

Compliance with environmental safeguards was moderately satisfactory during implementation (ICR, paragraph 51). The Directorate General of Highways (DGH) prepared Environmental Impact Assessments and Environmental Management Plans (EMPs), that were disclosed on the project website. The ICR notes that the application of environmental and safety practice requirements varied among road packages. Though there was environmental compliance for some packages, there were recurrent environmental shortcomings during implementation in some road packages (such as, poor house-keeping practices in the basecamps, oil/fuel spills in the asphalt mixing plant and deficiencies using personal protective equipment during work). Although the base camps were demobilized and returned relatively clean to the respective landowners, few environmental issues needed to be addressed (limited soil contamination due to fuel and lubricant leakages). The ICR does not mention of any issues with the safeguards on Physical Cultural Resources.

Involuntary Resettlement. The PAD (paragraph 46) observed that the sub-projects will require land acquisition and resettlement. A Land Acquisition and Resettlement Policy Framework (LARPF) was prepared and publicly-disclosed after consultations.

The project complied with the involuntary resettlement safeguards (ICR, paragraph 52). The affected people were duly compensated with the replacement cost based on the appraisal conducted by qualified external personnel. The final monitoring reports submitted by the DGH were deemed to be satisfactory. The ICR notes that Human Immunodeficiency/Autoimmune Disease/Sexually Transmitted Diseases (HIV/AIDS/STD) prevention workshops were conducted for all the road packages. The ICR (paragraph 53) notes that the Grievance Redressal Mechanism (GRM) was operational throughout the project life, and that a total of twenty four complaints were received and resolved during the project lifetime.

The ICR (paragraph 54) notes that a fatal traffic accident occurred on July 27, in which a site engineer was killed. The cause of the accident was a human error that could have been prevented if adequate traffic management provisions had been deployed. The accident was properly handled according to the World Bank Environmental and Social Response Toolkit (ESIRT). The deceased family received the entire compensation.

b. Fiduciary Compliance

Financial management. The Bank conducted a financial assessment of the Department Of Planning (DOP) at appraisal. The DOP had experience in managing Bank projects. A Financial Management Plan was developed at appraisal. The assessment concluded that implementing the actions of the Action Plan would satisfy the Bank's financial requirements (PAD, page 40).

The ICR (paragraph 55) notes that the financial management was rated as moderately satisfactory during implementation. The ICR notes that during implementation several overpayments and questionable expenditures were noted. However, most of these findings were followed up and actions taken properly by the implementing agents. Audit reports and Interim Financial Reports were submitted in a timely fashion and the audit reports were unqualified. The final audit report was due on June 30, 2022. A sum of



US\$31,807 was refunded by the Government due to an ineligible expenditure observed by the Audit Board and the Financial and Development Supervisory Agency on December 13, 2021.

Procurement management. The Directorate General of Highways (DGH) was in charge of procurement. The Bank conducted an assessment of DGH at appraisal. The assessment concluded that the DGH had the capacity to carry out the procurement activities (PAD, page 43).

The ICR (paragraph 56) notes that procurement management was rated as moderately satisfactory during implementation. Although there were delays in the initial years of the project, issues regarding procurement were gradually rectified. The ICR does not report any case of mis procurement.

c. Unintended impacts (Positive or Negative)

The ICR does not report any unintended impacts.

d. Other

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Moderately Satisfactory	Moderately Satisfactory	
Bank Performance	Moderately Satisfactory	Moderately Satisfactory	
Quality of M&E	Substantial	Modest	Shortcomings in M&E design.
Quality of ICR	---	Substantial	

12. Lessons

The ICR draws the following major lessons with some adaptation of language.

1. Inter-agency coordination issues and advancing procurement at preparation can help in reducing downstream delays during implementation. This is especially important in countries where such delays have occurred repeatedly in the past. The late coordination of the main project stakeholders and engagement of implementation support consulting services in this project led to significant downstream delays during implementation. Proactive actions to enable early inter-agency coordination and engagement of implementation support to prepare designs prior to the physical works implementation would have helped in preventing such delays.

2. Poor or inadequate engineering designs at preparation can critically affect the sustainability of project outcomes. Ineffective pavement designs in this project led to premature



failings (cracks and potholes) in some road sections, as the original engineering designs did not reflect reality on the ground. Road safety and resilience aspects were not systematically addressed in the engineering designs and a number of deficiencies were observed on the completed road packages. This led to contract variations orders and price escalation.

3. In countries which are vulnerable to natural disasters, a Contingent Emergency Component can provide the needed flexibility to adapt to unforeseen events. Activation of the Contingency for Disaster Risk Response in this project proved to be effective in responding to the disaster that occurred in September 2018.

13. Assessment Recommended?

Yes

Please Explain

There were quality shortcomings in some road packages due to factors, such as sub-standard stone masonry, poor drainage systems, asphalt segregation, cracks and potholes. The ICR (paragraph 25) acknowledges that while most of the observed deficiencies were addressed during the defect liability period, some of them may persist. Given this, it would be useful to have an assessment of the quality and sustainability of road works undertaken under this project.

14. Comments on Quality of ICR

The ICR is well-written, thorough and candidly discusses the procurement issues that arose in the early years of the project. The theory of change provided in the text is logical and clearly shows the links between the project activities, outputs and expected outcomes. The ICR effectively uses photographs to show the project activities. The ICR does not provide adequate detail on why there were so many financial and technical audits during the project execution period.

a. Quality of ICR Rating

Substantial

