Report Number : ICRR0024311

1. Project Data

Project ID P155086	**Program Name** Local Road Asset Management Program
Country Viet Nam	**Practice Area(Lead)** Transport

L/C/TF Number(s)	Closing Date (Original)	Total Program Cost (USD)
IDA-58100	30-Jun-2023	381,195,903.67
Bank Approval Date	**Closing Date (Actual)**	
29-Apr-2016	30-Jun-2023	

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	385,000,000.00	0.00
Revised Commitment	378,590,998.79	0.00
Actual	381,195,903.67	0.00

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2. Program Context and Development Objectives

a. Objectives

The Program Development Objective (PDO) of this Program-for-Results (PforR) as stated in the Financing Agreement (FA, Schedule 1, p. 5, and PAD, p. 4) was to improve road and bridge connectivity for the rural communities of the Participating Provinces in Viet Nam. While the definition of this PDO does not include a part to build or strengthen the Recipient's institutional capacity in the respective programs (local roads and bridges), all PforR are expected to support institutional capacity strengthening in the Program Action Plan

(PAP), DLIs and Results Framework. Thus, the objective related to institutional capacity strengthening is included in the IEG's assessment of the program development objectives.

For this Implementation Completion Report Review (ICRR), the objectives of this program are parsed and reviewed as follows:

PDO 1: to improve road connectivity for the rural communities of the participating provinces in Viet Nam;

PDO 2: to improve bridge connectivity for the rural communities of the participating provinces in Viet Nam; and

PDO 3: to strengthen institutional capacity.

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

No

c. Will a split evaluation be undertaken?

No

d. Components

The operation consisted of two complementary parts (FA, Schedule 1, p. 5 and PAD, p. 7):

Part I: The Program (Appraisal estimate: Total costs of US$ 404.12 million, of which the IDA credit of US$380.5 million and GoV commitment of US$23.62 million; actual cost: US$ 382.13 million, of which IDA credit of US$363.76 million and GoV's share of US$18.36 million). The Program used a Program-for-Results (PforR) financing instrument to support the following two Programs (PforRs):

1. **National Strategy for Rural Transport Development (or Roads PforR):** Carrying out of the Recipient's National Strategy for Rural Transport Development, through: (a) strengthening its institutional capacity to plan, implement and improve maintenance activities of the local road network; and (b) the improvement, rehabilitation, periodic and routine maintenance of local roads based upon rolling Medium Term Expenditure Plans.
2. **Program for Local Bridge Construction (or Bridges PforR):** Carrying out of the Recipient's Program for Local Bridge Construction, through: (a) the construction of small bridges in poor and ethnic minority communities and villages with missing or unsafe links in order to facilitate access to social services, schools, and clinics within the local road network; and **(**b**)** strengthening of local communities' capacity to carry out bridge maintenance activities.

Part II: Technical Assistance (TA) (Appraisal estimate: Total Costs of US$4.82 million, of which IDA credit of US$4.5 million and GoV's commitment of US$0.32 million; actual cost: US$ 2.55 million, of which IDA credit of US$2.26 million and GoV's share of US$0.3 million). The TA was to be implemented through an investment project financing instrument (IPF).It was to support the strengthening of the Recipient's capacity in the Program auditing, environment and social management, climate resilience, and road asset management systems: (i) to carry out DLI verification, financial audit, and internal audit of the Program; (ii) to improve the capacity of implementing agencies in environmental and social management; (iii) activities

related to the Local Road Asset Management Systems to optimize the funding mechanism and creation of maintenance work incentive under the Road Maintenance Fund (RMF); (iv) activities related to climate resilience in the local road network; and (v) community and women organization of road maintenance activities.

The operation was to support the following results areas as outlined in the PAD, pp. 7-9 and ICR, p. 5):

- **Results area 1: Improvement of local accessibility and associated service delivery.** The activities included to (i) rehabilitate and maintain local roads in 14 selected provinces and (ii) enhance maintenance practices using government funds. This results area was designed to enhance the quality and accessibility of local roads, contributing to the overall development of rural and inter-urban areas.
- **Results area 2: Improvement of local bridge connectivity to isolated communes.** The activities included to (i) build or rebuild numerous small bridges and construction of 2,174 bridges in order to increase access for remote and low-income communities in 50 targeted provinces.

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

Program cost. The total Program cost was estimated at US$1,365 million at appraisal, with the GoV's financing gap estimated at US$ 980 million (PAD, Datasheet, p. vi). These total costs were estimated for the two PforRs (Local Roads and Bridges) and the TA. The total costs of available financing for the Operation were estimated at US$408.94 million, which included the IDA commitment of US$385 million and GoV's commitment of US$50 million (or later revised to US$ 23.94 million due to the exchange rate fluctuations between the SDR, US Dollar and Vietnamese Dong). According to the ICR (p. 4, para 13), the actual costs of the operation at closing were US$404.415 million which included $381.20 million of the IDA credit and $23.22 million of the GoV.

Operation financing. The operation was financed through an IDA credit of SDR278.8 million which was equivalent to US$385 million covering both the PforRs and TA parts. The IDA's commitment was revised to US$378.6 million during the mid-term review (MTR) due to the exchange rate changes, and eventually US$ 381.2 million was disbursed (ICR, Datasheet, p. ii). The difference between the revised credit commitment and disbursement was mainly due to exchange rate fluctuations during implementation.

Recipient's contribution. The GoV's contribution was estimated at US$50 million (ICR, p. 4 para 13) at appraisal, though the Bank team's response of December 17, 2024 clarified that the GoV's commitment was estimated at US$23.94 million, which is close to the Recipient's revised contribution of US$23.93 million (ICR, datasheet, p. ii). The GoV's actual contribution was US$23.22 million (ICR, Datasheet, p. ii).

Dates. The operation was approved on April 29, 2016, became effective 7.5 months later on December 15, 2016. The Mid-Term Review was completed on May 30, 2019. The implementation of the operation closed on December 31, 2022, while the financing closed on June 30, 2023 as per schedule.

3. Relevance

a. Relevance of Objectives

Rationale

Country and sector context. Vietnam experienced robust economic growth, as real Gross Domestic Product (GDP) grew at an average annual rate of 7.4 percent between 1990 and 2010 which was among the world's top five growth performers. Significant allocation – 10 percent of its GDP – to infrastructure was a key factor contributing to the country's economic success. Nevertheless, two northern regions – Northern Mountains and North Central Coast Regions still grappled with high poverty rates, disparities between coastal and mountainous regions, and limited connectivity between rural locales and marketplaces. Research carried out in Vietnam and neighboring countries since 2000 showed that investments in local roads and bridges had a significant impact on poverty alleviation, social participation, school attendance and health services. Vietnam's local road and bridge network which comprises about 85 percent of the total network (295,000 km) serves around 80 percent of the entire population and 90 percent of the nation's poor, who mainly live in rural areas. At appraisal, many rural areas lacked dependable access to transportation infrastructure year-round, which limited mobility and access to essential services (such as commune administration centers, schools, clinics, and markets), whilst many suffered from limited or non-existent bridge connectivity to the cities. The transportation needs of rural low-income households were not adequately met, and inefficient infrastructure and unreliable transportation services made transportation costs high. Despite the emphasis on maintenance within government transportation policies, the funds allocated for the maintenance of transportation infrastructure seldom exceeded half of the required operations and maintenance (O&M) costs at the national and local levels.

Alignment with Country's Strategy. At appraisal, the PDOs were fully aligned with the objectives of the GoV's national strategies. This operation was to directly contribute to the National Strategy on Rural Transport Development (NSRTD) (2020-2030) and the National Program for Local Bridge Construction to Ensure Traffic Safety in Ethnic Minority Areas (PLBC) (2014-2020) under the umbrella of the Vietnamese Rural Transport Development Strategy 2020. Both NRST and PLBC "both targeted improving access to rural areas with low accessibility, especially in areas where poor ethnic minority communities were located as well as other vulnerable groups" such as female-headed households and children (PAD, p. 5, para 13). The government strategies also emphasized the importance of increasing maintenance budgets for local rural roads, to ensure year-round access to all communes and help reduce poverty (ICR, p. 2, para 6). This operation also contributed to "the government's National Targeted Programs (NTP) on rural development and sustainable poverty reduction … that aim(ed) to broaden economic opportunities among ethnic minority and vulnerable groups" (CPF for 2016-2022, p. 29, para 71). At closing, the PDOs remained relevant to the objectives of the Viet Nam Transport Master Plan 2021-2030 which aims to provide adequate infrastructure to support the growing economy.

Alignment with the WB's Strategy. The PDOs were largely aligned with the WB's Viet Nam Country Partnership Framework (CPF) for 2012-2016 as the operation was expected to contribute to "Objective 1.3. Enhance trade competitiveness, multi-modal transport connectivity, and logistics services", "Objective 1.3.iv. develop reliable and high-quality infrastructure" (CPF for 2016-2022, p. 23) and "Objective 5: Broaden economic participation of ethnic minorities, women, and vulnerable groups" (CPF, p. 29). "The operation directly supported the priority of the CPS to narrow the development gap of disadvantaged and lagging areas, which include the targeted provinces of Northern Mountains and North Central Coast regions for the road activities" (PAD, p. 4). At closing, the PDOs were aligned with the Systematic Country Diagnostic update of 2021 that recognized Viet Nam's effort at closing the economic gap by improving infrastructure as one of its priorities. The PDOs could also be considered aligned with two of several objectives proposed for

the new CPF for 2023-2027 which is still under preparation. Specifically, the PDO was aligned with "Objective 1. Strengthen climate resilience and promote sustainable growth of infrastructure, cities, and regions", and "Objective 8. Enhance inclusion of women, ethnic and other vulnerable groups into the economy" (https://consultations.worldbank.org/en/consultations/detail/vietnam-cpf-23-27).

Previous sector experience. The PDOs were mostly defined based on the results and experiences of the Bank's previous three rural transport projects in the country with a focus on improving transport connectivity to alleviate poverty prevalent in rural isolated areas. Based on the GoV's previous experiences with PforRs in other sectors, it was decided to use a PforR instrument because it was good at enhancing the efficiency and effectiveness of expenditure allocations in the infrastructure sector. Two contiguous poor regions - the Northern Mountains Region and North Central Coast Region – were selected for the program implementation. The Northern Mountains region with the highest poverty rates and the highest concentration of ethnic minorities struggled with uneven distribution of recent prosperity not only among the districts but also within them. That was partially attributed to poor connections between rural areas and markets and growing number of workers from rural areas migrating to the cities in search of jobs. The North Central Coast Region, which ranked the fourth poorest in the country and faced extreme poverty in certain areas and disparities between coastal and mountainous regions, served as a pilot area for the Viet Nam Provincial Road Maintenance Management System (VPRoMMSs) in the World Bank funded Third Road Transport Project (RTP3). Thus, it was a good candidate region for this operation, in addition to the adjacent Northern Mountains region. This operation consisting of the two PforRs and investment project financing (IPF) for Technical Assistance (TA) reinforced continuity of the World Bank engagement in the sector. Since this was the fourth rural transport operation, its PDO would have been expected to be formulated at an outcome- rather than output-level, infrastructure-focused PDOs, i.e., "connectivity" through construction of the infrastructure.

The relevance of the Objectives is rated substantial. While there is an alignment between the PDOs and the country's and WB's strategies throughout the project cycle, the relevance of the PDOs was not pitched at a level to adequately reflect a potential solution to the development problem (i.e., "poor accessibility and connections between rural areas and markets", PAD, p.1, para 3) and the advanced capacity in the country at the time of appraisal, given Vietnam's graduation from the IDA soon after the Board approval of this operation. The main shortcoming was that the PDOs were formulated at an output level despite all the physical and institutional achievements of the previous rural transport engagements and did not capture what development challenges at an outcome level this Operation aimed to address. The PDOs lack the definitions that could enable monitoring what the improved road and bridge connectivity is likely to lead to, be it markets, education, health services or other factors affecting community livelihoods. Identifying and tracking longer-term development targets is an important factor of a successful development operation.

Rating

Substantial

b. Relevance of DLIs

DLI 1

DLI
Number of kilometers of roads that received improvements, rehabilitation.

Rationale
The DLI is directly relevant to and aligned with the PDOs and the Results Framework. This DLI is output-oriented and was defined according to the SMART criteria: i.e., specific, measurable, achievable, relevant and time bound. The DLI verification protocol at appraisal was clear and specific. This DLI measured the total length of local roads that was improved through rehabilitation and pavement upgrade as per national standards for roads and the Operations Manual (OM) in the participating provinces each year. These expenditures were considered *capital expenditures* in Vietnam, as those works were executed to avoid road degradation, such as resurfacing, asphalt concrete overlays, etc. The DLI was used to account for road works fully completed, including safety features, drainage and signalization when applicable, and works accepted by the Employer in compliance with relevant quality and standards. The breakdown with relevant between Provincial/District/Commune roads was subject to prioritization done by the Provincial Project Management Units (PPMUs) and Provincial Departments of Transport) (PDOTs) based on local consultations, Medium-Term Expenditure Plans (MTEPs) and other analysis as available (PAD, p. 39, Table A3.2).

Rating
High

DLI 2

DLI
Number of kilometers of roads that received routine maintenance at minimum level.

Rationale
The DLI was directly relevant to and aligned with the PDOs and the Results Framework. This DLI was output-oriented and defined according to the SMART criteria: i.e., specific, measurable, achievable, relevant and time bound. The DLI verification protocol at appraisal was clear and specific. This DLI measured the total length of local roads that were maintained as per national standards for roads, OM and the MTEP in the participating provinces. The DLI was used to promote an institutional reform to ensure regular routine maintenance for local roads at a minimum level. Regular routine maintenance is often neglected in countries with constrained resources, especially on the roads which have recently been constructed and/or improved, which results in premature deterioration of those roads, loss of investment and prevents sustainable transport connectivity and accessibility for people to socio-economic opportunities. The DLI was used to account for road works fully completed as per the MTEP and accepted by the implementing agencies in compliance with relevant quality and standards." (PAD, p. 39, Table A3.2).

Rating
High

DLI 3

DLI
Increased amount in budget allocation for local road maintenance (as in the FA, p. 10, Schedule 2, Section IV)

Rationale
The DLI is directly relevant to and well aligned with the PDOs and the Results Framework. This DLI is output-oriented and defined according to the SMART criteria: i.e., specific, measurable, achievable, relevant and time bound. The DLI verification protocol at appraisal was clear and specific. This DLI was used to enable monitoring and trigger a policy change in the road maintenance approach by incentivizing an increase in the share of expenditures dedicated to road maintenance. For each participating province, specific baselines, targets and allocations were set.

This DLI was used to support an institutional reform aimed at allocating and gradually increasing a budget for local road maintenance. As routine maintenance of improved roads is often of a low priority for countries with constrained resources, the achievement of this DLI was an indication of the Government's commitment to allocate and increase routine maintenance budget for local roads. This DLI measured an increased amount in budget allocation for local road maintenance on an annual basis as per annual targets and as detailed in the OM. Each Province had to report on the actual increased budget allocation for maintenance each year, and the achievement was to be measured for each participating Province. The disbursement level was linked with each Province's results, which created an incentive-based model at a provincial level. The DLI was used to determine a share of local roads maintained at a minimum level each year for each participating province. The Independent Verification Agent had to compare actual expenditures on an annual basis and the type of road works, MTEP and the list of contracts signed and implemented for each Province in order to verify an increased amount in budget allocation for local road maintenance.

Rating
High

DLI 4
DLI
Number of bridges built or rebuilt.

Rationale
The DLI was directly relevant to and aligned with the PDOs and the Results Framework. This DLI was output-oriented and defined according to the SMART criteria: i.e., specific, measurable, achievable, relevant and time bound. The DLI verification protocol at appraisal was clear and specific. This DLI measured the number of bridges actually built or rebuilt as per national standards for roads and OM in each participating province each year. Bridge works had to be fully completed, including safety features and signs (when applicable) and works accepted by the implementing agencies in compliance with relevant standards and quality requirements. The Independent Verification Agent had to compare annual plans and the list of contracts signed and implemented.

Rating
High

DLI 5

DLI
Percentage of participating provinces managing a bridge database.

Rationale
The DLI is directly relevant to and aligned with the PDOs and the Results Framework. The DLI is outcome-oriented and was designed according to SMART criteria. At appraisal, the local DoTs had a rather limited knowledge of their own bridge related assets and condition. This DLI introduced the notion of bridge asset management into Vietnam's transport infrastructure management. It was used to promote an institutional reform aimed at ensuring that the participating provinces design, establish and manage a bridge database. The establishment of a bridge database was expected to help transition towards a bridge asset management system equivalent to the VPROMMS for the roads. The bridge database was expected to include information concerning bridge location, condition, status (days closed or impassable on an annual basis), previous works, schedule for inspections and future works, and updates in accordance with the standards stated in the OM. The Independent Verification Agent had to verify databases, actual contracts signed and implemented. The database could be computer/spreadsheet based or manually recorded and managed. PPMUs were to develop databases under the guidance of PDOT.

Rating
High

OVERALL RELEVANCE RATING

Rationale
Overall, Relevance is rated as Substantial because of the Substantial rating of the PDOs and high rating of the DLIs. The PDOs remained largely relevant to the Bank's and Government's strategies throughout the operation period but lacked an outcome-oriented definition at the level to reflect the achievements of the previous engagements in the sector and advanced capacity of the Recipient. The DLIs were directly relevant to the PDO: two DLIs (DLIs 3 and 5) promoted institutional reforms and in combination with the other three output DLIs (DLIs-1, 2 and 4) they directly contributed to the achievement of the PDOs. The DLI targets were simple, attainable, and easily verifiable since most of them were output-oriented.

Rating
Substantial

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

To improve the road connectivity for the rural communities of the participating provinces in Vietnam.

Rationale

An explicit ToC was not established at appraisal, as it was not a requirement at the time. The ICR provided a reconstructed ToC, which has some gaps as it does not include some of the operation activities and outputs that are logically linked to Objective 1. The following ToC for Objective 1 has been developed by the IEG and suggests that the operation were to support such activities as to: (i) carry out improvements (pavement upgrades) and rehabilitation of roads, (ii) carry out routine maintenance of roads at a minimum level, (iii) customize the development and implementation of the Road Network Evaluation Tool (RoNET) to produce a cost-benefit analysis to inform the preparation of annual budget allocations in the provinces, (iv) provide capacity building and trainings to Department of Roads of Viet Nam (DRVN) and PMUs in provinces in the use of road asset management systems for better planning and budgeting at the provincial and local levels, (iv) prepare Mid-Term Expenditure Plans (MTEPs) through the use of VPRoMMS and RoNET, (v) develop a performance-based contract (PBC) model with inclusive community participation in routine maintenance; (vi) develop a manual for PBC implementation with community participation and (vii) conduct trainings in community-based maintenance for communities. These activities were expected to lead to the following outputs: (i) certain length of roads that received improvements and rehabilitation, (ii) certain lengths of roads that received routine maintenance at a minimum level, (iii) completed customized development and implementation of RoNET to support annual budget allocations in the provinces, (iv) certain number of provinces that used VPRoMMS or RoNET for planning and budgeting at the provincial and local levels, (v) developed PBC model of community-based routine maintenance; (vi) developed manual for community-based PBC implementation, (viii) completed trainings with communities in community-based maintenance and (vii) implemented performance-based road maintenance on a certain length of road with community participation. These outputs were expected to lead to such outcomes as (i) an increased number of people benefiting from improved, rehabilitated and maintained roads in the participating provinces, (ii) increased budget for local road maintenance, and (iii) entire local road network under continued routine maintenance at a minimum level. The Bank and the Recipient did not identify other potentially relevant and positive outcomes of the program.

The main assumptions were that (i) provinces would allocate adequate resources for road rehabilitation and maintenance, (ii) trainings for the use of the road asset management systems for planning and budgeting would be effective, the data would be regularly collected, inputted into the VPRoMMS or RoNET and analyzed to inform the preparation of MTEPs, and the provincial governments would allocate budgets as per the prepared MTEPs, the private sector's capacity would be adequate to take on all new civil works contracts for road rehabilitation and improvement as budgeted in the MTEPs in all provinces, and communities would be properly trained to participate in community-based routine maintenance of roads.

Outputs

- 1,210 km of roads received improvements, rehabilitation. **The target of 676 km was exceeded by almost 80 percent**. According to the ICR (p. 9, para 35) the Program exceeded the target because of the use of savings accrued from fluctuations in exchange rates (SDR vs USD vs local currency).
- 54,860 km of roads received routine maintenance at a minimum level. **The target of 48,578 km was exceeded by 13 percent**.
- 49,564 km of roads received community-based routine maintenance. **The target of 10,000 km was exceeded by almost five times (almost 400 percent)**.It seems that the target was set at a

conservative level as the savings from procurement and currency exchange rates could not explain such a drastic overachievement.

- All 14 provinces use the road asset management systems (Viet Nam Provincial Road Maintenance Management System (VPRoMMS) and Road Network Evaluation Tool (RoNET). **The target of 14 provinces using road asset management systems was fully achieved**.

The ICR reports the following additional outputs that were delivered by the operation but were not included in the results framework, and hence had no targets:

- 60 km of roads received maintenance under a performance-based road maintenance contract.
- 14 training seminars in roads connectivity activities in the provinces with 628 participants, and 3,410 technical manuals (in hard copy and on USB storage devices) for community-based road maintenance were disseminated to provincial, district, and commune authorities in 51 provinces.
- Two established systems (VPRoMMS and RoNET) were customized for better planning and budgeting at the provincial and local levels under the IPF-funded TA (ICR, pp. 8-9, para 33). The customized RoNET is used to produce a cost-benefit analysis to inform the annual budget allocation in the MTEPs in the provinces.
- MTEPs were generated from VPRoMMS which PDoTs submitted for review and approval by Provincial People's Councils (ICR, p. 9, para 33).
- The World Bank team also indicated in their email response of December 2, 2024 that the roads supported under this Program were improved in compliance with the Vietnamese national standards for roads of Grade A (TCVN 20314:2014) or Grade VI/V (TCVN 4054:2005) and with Vietnamese climate guidance, with designs being based on historic (not climate change) flood levels.
- According to the Impact Assessment report (pp. 117-118), some program roads were damaged during the 2020 floodings. However, the ICR did not report the extent or scale of those damages on the program roads and if those damaged roads had been restored by the closing date. The World Bank team provided clarification in its email response of December 2, 2024 about the restoration of the damaged bridges, but no clarification regarding the damaged roads.

Outcomes

The above listed outputs led to the following outcomes:

- **1,971,097 of beneficiaries with improved road access**. The target of 2.5 million of beneficiaries, which was set at appraisal, was not disaggregated at that time and encompassed people benefiting from both Roads and Bridges Programs. Since the lengths of roads that were improved, rehabilitated and received routine maintenance at a minimum level significantly exceeded the targets set at appraisal **it is plausible that the number of people that was anticipated to benefit from the Roads Program only was also exceeded**. At appraisal, beneficiaries were defined as "people within 2 kilometers of the roads" but during implementation that definition of the beneficiaries was revised based on the assumption that the entire population of the communes next to the roads and bridges benefit directly from them, not limited only to those within 2 km of the roads. Hence, that revision led to the increase in the number of the beneficiaries beyond 2-km access to the program roads. However, the target was not officially revised to reflect the change in the program's methodology of the calculating beneficiaries.
- VN 671 billion (US$29,814,271) was cumulatively allocated to the local road maintenance from FY2017 to end of FY22. The validated data was reported in May 2023**. The target of VN 380 billion**

(US$ 16,521,739) **of budget allocation for local road maintenance from FY17 to FY22 was exceeded by 77 percent**. (The dollar equivalent varies every year because of different exchange rates during the period of 2017-2022.)

- 100 percent of local road network maintained at a minimum level in accordance with MTEP. **The target of 100 percent was achieved.**

The ICR also reports on additional outcomes that were not included in the results framework and hence had no targets:

- The data generated by VPRoMMS provide adequate estimates on a multi-year basis for the provinces to secure enough financing for operation and maintenance. The provinces continue using the road asset management systems to produce MTEPs for the next year (ICR, p. 10, para 39).
- Routine maintenance was institutionalized in Provincial People's Committees (PPCs) to allocate a budget line item for local road maintenance which PDoTs/PPMUs perform (ICR, p. 10, para 37). **No target was set in the results framework.**

The Impact Assessment (IA) study which was conducted in 2020-2021 reported a wide range of additional results. The IA study gathered the data through using three methods: field observation of project sites, in-depth interviews (IDIs), and focus group discussions (FGDs). Because there was no baseline survey conducted before the start of the civil works, there was no baseline data for such indicators as daily traffic volume, travel time and travel costs. For these indicators, the assessment relied on the memories of people participating in the qualitative data collection. The data was mainly gathered through qualitative methods and was not triangulated (i.e., verified through other methods).

The Efficacy of Objective 1 is rated as Substantial. At the output level, the operation exceeded the targets of roads rehabilitated and improved, roads that received community-based routine maintenance, roads that received routine maintenance at a minimum level, and fully achieved the target of all 14 provinces using road asset management systems. However, overachievement of the two output targets by almost 80 and 400 percent cannot be explained by the savings from the currency exchange fluctuations and indicates conservative setting of the targets. At the outcome level, the operation fully achieved the target of 100 percent of local road network maintained at a minimum level in accordance with MTEP and exceeded the target of budget allocation by 77 percent for local road maintenance for the period of FY17-FY22. It is also very likely that the operation exceeded the estimated number of people benefiting from the Roads Program because of the revised methodology in counting the beneficiaries during the implementation but without updating the target for the consistency purpose. All these reported results are closer to the output-oriented results rather than outcome-oriented ones. Enhancement with climate resilience features was not included in the results framework to monitor the impact of this roads program on the all-weather connectivity. Because of (i) lack of adequate justification of the significant overachievement of most targets for the indicators for Objective 1 (i.e., about 80 – 400 percent), and (iii) lack of reporting on results in terms of potential outputs or outcomes as discussed in the ToC above, the efficacy of this objective is rated as Substantial.

Rating
Substantial

OBJECTIVE 2

Objective

To improve the bridge connectivity for the rural communities of the participating provinces in Vietnam.

Rationale

An explicit TOC was not established at appraisal, as that was not a requirement at the time. The ICR provided a reconstructed TOC which has some gaps as it does not include some of the operation activities and outputs that are logically linked to Objective 2. The following TOC for Objective 2 has been developed by the IEG and suggests that the operation was to support such activities as to: (i) build new bridges or rebuild existing ones, (ii) customize a bridge management system (BMS) for provinces to maintain and manage local bridges, (iii) provide capacity building and trainings to the Department of Roads of Viet Nam (DRVN) and Provincial PMUs (PPMUs) in the use of the BMS for planning, monitoring, evaluation of bridge conditions, maintenance, and budgeting at the provincial and local levels, and (iv) based on the BMS data analysis, prepare inputs for local bridge budgeting and planning as part of the MTEPs preparation. These activities would lead to the following outputs: (i) certain number of bridges built or rebuilt, (ii) completed customization of the BMS for provinces to maintain and manage local bridges, (iii) completed capacity building and trainings to the DRVN and PPMUs in the use of the BMS for planning, monitoring, evaluation of bridge conditions, maintenance, and budgeting at the provincial and local levels, and (iv) inputs are prepared based on the BMC analysis for local bridge budgeting and planning as part of the MTEPs preparation. These outputs would lead to the following expected outcomes: (i) an increased number of communes and people benefiting from new or rebuilt all season bridge connection in the participating provinces, (ii) increased budget for local road maintenance, (iii) entire local road network under continued routine maintenance at a minimum level. The Bank and the Recipient did not identify other potentially relevant and positive outcomes of the bridge program.

The assumptions were that (i) the Provinces would arrange the regular collection of the data for the BMS, timely inputting, processing and analyzing it, and eventually use that data analysis to provide inputs in the preparation of MTEPs, which also cover bridge construction/reconstruction and maintenance, not only local roads rehabilitation, improvement and maintenance; (ii) continued training for government agencies in the use of BMS and preparation of MTEPs, especially after the turnover of the staff, and (iii) Provinces' commitment to providing adequate allocations as per the prepared MTEPs.

Outputs

- 2,456 bridges were newly constructed and operationalized across all 50 Provinces. Among these, 17 new bridges incorporated cultural features. **The target of 2,174 bridges built or rebuilt was exceeded by 13 percent.**

The Operation delivered other outputs which were not reflected in the Results Framework, and hence did not have any target values:

- The Bridge Management System was developed.
- Regular trainings in the use of BMS were held.

Outcomes

- 1,484 communes benefited from newly built or rebuilt bridges **The target of 800 communes** with new or rebuilt all season bridge connection **was exceeded by 86 percent**. The ICR attributes this increase

to the fact that it was projected that each bridge would serve a single commune, but in some instances a single bridge provided connectivity for more communes. However, the revision of the methodology for beneficiary commune data collection without the update of the target raises questions about the quality of the methodology used and the quality of evidence reported.

- 100 percent of participating provinces managing a bridge database (Percentage). **The target was achieved.**

The ICR also reported the following additional results delivered by the operations but not included in the Results Framework and, hence, without target values:

- The Independent Verification Audit verified and confirmed that the bridges had been constructed based on standard designs and specifications to replace rudimentary cable or temporary wooden structures (known as monkey bridges) with modern designs. Improvements included wider bridges and greater load capacity, facilitating two-way traffic for motorcycles and small trucks. Each bridge was constructed with proper slope protection and stabilization extending 10 meters from the access points, in accordance with design specifications, to ensure safety of the bridges. Riverbeds were cleared to reduce flooding and the environmental impact during the construction period (ICR, p. 11, para 43).

The Bank team further informed IEG that:

- Program bridges were designed to be compatible with current standards. All 2,456 bridges have widths between 2.5 and 4 meters adhering to the standards set by the GoV's rural bridge program. (December 2, 2024).
- The BMS had been rolled out to other provinces that had not participated in this operation, because the DRVN had made it mandatory for all 61 provinces to maintain the BMS for national and local bridges (November 11, 2024).

14 program bridges had experienced damages to bridge approaches and abutments during a series of floodings in 2020. None of the bridges suffered damage to the main structure, piers, or beams. According to the World Bank team, all damages had been repaired by the operation closing date (the Bank team's response of December 2, 2024).

The efficacy of Objective 2 is rated as Substantial. At the output level, the operation exceeded the targets of bridges built or rebuilt by about 13 percent. At the outcome level, the operation fully achieved the target of 100 percent of participating provinces managing a bridge database and exceeded the target for the number of communes by 86 percent that benefited from the new bridges, with the revised methodology being questioned for the latter one. Similarly to the Roads Program, the Bridges Program did not include any indicators related to enhancement with climate resilience features in the results framework to monitor the impact of this roads program on the all-weather connectivity. Because of (i) lack of adequate justification of the significant overachievement of the beneficiary target for Objective 2 (i.e., by 86 percent), and (iii) lack of reporting on results in terms of potential outputs or outcomes as discussed in the ToC above, the efficacy for Objective 2 is rated as substantial.

Rating

Substantial

OBJECTIVE 3

Objective

To strengthen institutional capacity

Rationale

One of the objectives of PforR Programs is to strengthen a country's institutional capacity, even if it is not explicitly stated in the PDO (cf. Bank Guidance: Implementation Completion and Results Report (ICR) for Program-for-Results (PforR) Operations. 2021. Para 47). Hence, this ICRR assesses the efficacy of this objective through the evaluation of the relevant actions included in the Program Action Plan (PAP) and indicators (DLIs or results indicators) that improved institutional capacity, systems or procedures and contributed to the improved Program effectiveness.

The following ToC has been developed for Objective 3 by the IEG: the operation would support the following activities, some of which are also mentioned under the ToC for Objectives 1 and 2: (i) customization of the development and implementation of VPRoMMS and RoNET to inform planning and budgeting at the provincial and local levels; (ii) delivery of trainings to government officers to use these two systems in planning and budgeting processes, i.e., preparation of MTEPs; (iii) development of a bridge management system (BMS); (iv) delivery of trainings to use the BMS; (v) development of a manual on community-based road maintenance and delivery of trainings to communities involved in routine maintenance; (vi) development of one overall five-year financial plan to implement the Program by the participating provinces, (vii) development of a budget proposal by the provinces based on estimated work progress/cash flow for coming year to ensure no funding gap to achieve program results; and (viii) MoF to ensure that a mechanism for results-based financing is included in the Government annual budget cycle of related provinces. These activities were to produce the following outputs: (i) customized development and implementation of VPRoMMS and RoNET; (ii) delivered trainings for government officers in the use of these two systems and use of those systems by the participating provinces in the Roads Program ; (iii) developed BMS; (iv) delivered trainings on the use of the BMS; (v) developed manual on community-based road maintenance and completed trainings to communities on routine maintenance; (vi) developed five-year financial plan; (vii) developed budget proposals by the provinces based on estimated work progress/cash flows for next years to ensure no funding gap for the achievement of the program results; and (vii) developed mechanism for results-based financing is included in the Government annual budget cycle of related provinces. These were to lead to the following outcomes: (i) MTEPs are prepared with the use of VPRoMMs, RoNET and BMS, (ii) adequate budget allocations to achieve each year's program objectives are in place; (iii) increase in the budget allocation to local road maintenance, including local bridges, and (iv) implemented routine maintenance through community-based maintenance activities.

The main assumptions were that (i) trainings for the use of the road and bridge management systems for planning and budgeting would be effective: (ii) the data would be regularly collected, input into the VPRoMMS, RoNET and BMS and analyzed to inform the preparation of MTEPs; (iii) continued training for government agencies in the use of the systems and preparation of MTEPs, especially after the turnover of the staff, and (iv) Provinces' commitment to providing adequate allocations as per the prepared MTEPs.

Outputs

The activities supported under this Operation produced the following outputs for the achievement of the institutional capacity strengthening, which was also reported under Objective 1:

- All 14 provinces use the road asset management systems (Viet Nam Provincial Road Maintenance Management System (VPRoMMS) and Road Network Evaluation Tool (RoNET). **The target of 14 provinces using road asset management systems was fully achieved**.

The ICR reports the following additional outputs some of which were also discussed under Objective 1 and 2 but were not included in the results framework, and, hence, had no targets:

- 14 training seminars were delivered on basic rural road maintenance in the provinces with 628 infrastructure staff in 2,969 communes and 158 districts (ICR, p. 13, para 48).
- 3,410 technical manuals on community-based road maintenance were disseminated in hard copies and on USB storage devices to provincial, district, and commune authorities in 51 provinces (ICR, p. 13, para 48).
- The BMS which was initially used for managing national bridges was adopted for local bridge management. The BMS contains all the relevant information that is necessary for planning, monitoring, evaluation of bridge conditions, maintenance, and budget allocation for effective maintenance efforts. It includes detailed inventory data, global positioning system (GPS) coordinates for bridges, a log for maintenance activities, and schedules. The BMS supported incident reporting and bridge conditions such as damage, with pictures as evidence. PDoTs are required to (i) input data on bridge condition and maintenance activities into the BMS at the provincial level for the provincial road network and at the district level for district and commune roads and (ii) update the data. All Provinces were reported using the database a year ahead of the bridge Program closing. (ICR, p. 11, para 45).
- Two established systems (VPRoMMS and RoNET) were customized for better planning and budgeting at the provincial and local levels under the IPF-funded TA (ICR, pp. 8-9, para 33). The customized RoNET is used to produce a cost-benefit analysis to inform the annual budget allocation in the MTEPs in the provinces.
- MTEPs were generated from VPRoMMS which PDoTs submitted for review and approval by Provincial People's Councils (ICR, p. 9, para 33).

Outcomes

The following outcomes were achieved and reported as a result of the above listed outputs, some of which were also discussed under Objectives 1 and 2:

- VN 671 billion (US$29,814,271) was cumulatively allocated to the local road maintenance from FY2017 to end of FY22. The validated data was reported in May 2023**. The target of VN 380 billion** (US$ 16,521,739) **of budget allocation for local road maintenance from FY17 to FY22 was exceeded by 77 percent**. (The dollar equivalent varies every year because of different exchange rates during the period of 2017-2022.)
- 100 percent of participating provinces managing a bridge database (Percentage). **The target was achieved.**

The ICR also reports additional outcomes that were not included in the results framework and, hence, had no targets:

- The data generated by VPRoMMS provide adequate estimates on a multi-year basis for the provinces to secure enough financing for operation and maintenance. The provinces continue using the road asset management systems to produce MTEPs for the next year (ICR, p. 10, para 39).
- Routine maintenance was institutionalized in Provincial People's Committees (PPCs) to allocate a budget line item for local road maintenance which PDoTs/PPMUs perform (ICR, p. 10, para 37).
- Routine maintenance was delivered through community-based road maintenance activities as it was evident through reporting of 49,564 km of roads that received community-based routine maintenance. The target of 10,000 km of roads maintenance under community-based arrangements was exceeded by 400 percent as it seemed to have been set at a conservative level in the results framework during the operation preparation.
- Medium-term investment plan for 2016-2020 (5-year MTIP) for the operation was developed and met the progress (i.e., reached at 89 percent). Annual budget allocation plans were approved for implementation. The remaining funds of 11 percent were to be included in the MTIP 2021-2025. The ICR reported this achievement in the PAP (ICR, Annex 1, A. Program Action Plan, p. 8).
- Annually, the MoF advised the Government on the allocated budget sufficient for the implementation to meet the operation progress and objectives (ibd).

- The MTEP implementation provided central and provincial authorities with a medium-term perspective on sector planning and budgeting, created an understanding for integrating and balancing recurrent expenditure for routine maintenance versus investment for local road works, and provided a basis for investment decisions on local road rehabilitation and improvement. Expansion of the MTEP to other provinces is envisaged once the MoF issues requirements and guidelines on MTEP and the government follow-up program (ICR, p. 9, para 33).
- The mindset changes for long term sustainability of capacity building and institutional support are reported in the following two areas: (i) the institutional mandate and role of PDoT to continue with the use of MTEP for planning, prioritizing the annual capital investment and recurrent expenditure; and (ii) institutionalization of maintenance training at the provincial, district, and commune levels to be combined with the annual training curriculum and refresher course provided at all levels to ensure sustainable maintenance of the entire local road network (ICR, pp. 15-16, para 60).

As mentioned in the discussion of Objective 2's efficacy, the team also informed the IEG during the interview on November 11, 2024, that the BMS had been rolled out to other provinces that had not participated in this operation. The DRVN had made it mandatory for all 61 provinces to maintain the BMS for national and local bridges.

The Efficacy of Objective 3 is rated as Substantial. Based on the above assessment, the operation substantially met the institutional capacity strengthening objective by providing the bridge management system, customizing the existing road asset management systems and providing relevant trainings that enabled the provinces to regularly prepare MTEPs, achieve an increase in the maintenance budget allocation compared to the before-the-operation level and ensure that routine maintenance which is often neglected is delivered through community-based maintenance arrangements. Objective 3 is rated as Substantial due to the moderate shortcoming which is lack of the operation's explicit commitment to the institutional capacity strengthening in the formal definition of the PDO and a formal set of associated outcome-oriented indicators.

Rating
Substantial

OVERALL EFFICACY

Rationale

The Overall Efficacy is rated as Substantial due to the substantial ratings of Efficacy for Objectives 1, 2 and 3. That is mainly because of lack of valid reasons for drastic overachievements of output-oriented targets, and the lack of adequate outcome-oriented indicators to report potential positive impacts of the operation.

Rating
Substantial

5. Outcome

The Outcome is rated as Satisfactory because of the substantial ratings of the Relevance and Overall Efficacy.

Outcome Rating
Satisfactory

6. Risk to Development Outcome

- **Government commitment**. While MTEP was mainstreamed in the 14 LRAMP provinces (p. 2, para 7) and a budget line item for local road routine maintenance was institutionalized at the PPC level (ICR, p. 10, para 37), there is a risk that the budgeting approach may not be sustained in the longer-term. The ICR reports that this approach has not been applied in other provinces outside the operation scope because the government's requirements and guidelines on MTEP have not been issued by the Ministry of Finance yet. As this is not a country-wide requirement, the 14 LRAMP provinces may start losing their motivation to continue regular preparation/updates of MTEPs, especially when they face constrained resources. Moreover, the provincial governments may also feel more inclined to divert or reduce funding for the roads and bridges which are in better conditions now to other sectors with more pressing needs.
- **Technical capacity**. There is a risk that technical capacity may be lost due to staff turnover. Because government officers often rotate, there may be a need for continued trainings for new staff in VDoTs, PPMUs and PPCs would need to be addressed in order to build and sustain knowledge and skills in updating and maintaining asset management systems and using those systems for the preparation of MTEPs. All three asset management systems require regular data collection and updating. If either

staff in charge of those systems change or irregular funding is provided for data collection and updating, those systems may not be regularly used in planning, budgeting and management of roads and bridges programs. As per Annex 5, the budget was allocated for all provinces to upload and update local road data to June 2023, but it is not clear whether or to what extent the budget will be continuously allocated after that date.

- **Sustainability risk for community-based routine maintenance**. Besides limited financial and human resources faced by districts, other challenges include inability to comply with standards of routine maintenance for the local roads (including local bridges) due to lack or limited training in application of these standards. The road maintenance manual was created based on the merger of the five modules, and district leaders find the manual difficult and complex to use with the people at the commune and village levels (IA study, May 2021). In other instances, some districts skipped the use of the manual because of their perception that local people already know how to perform simple maintenance works. It is unclear if the community-based maintenance will be sustained after the closing. .
- **Exposure to natural disasters**. Vietnam is prone to natural disasters, including typhoons, tropical storms, floods, salt water intrusion, landslides, and others. These could present major threats to roads and bridges that were either newly created, rehabilitated or received routine maintenance. It is not clear if and what climate resilience features were integrated in designs of all bridges and roads delivered under this operation, and if these assets were assessed by the independent verification agent as adequate enough to withstand the impacts or suffer minimal impacts of the natural disasters. Enhancement with climate resilience features was neither included in either road or bridge related DLIs and/or M&E indicators. It is also not clear if community-based routine maintenance activities continue to be implemented beyond the closing date of this operation, as discussed above, and if the scopes of those community-based contracts include activities to strengthen climate resilience of the local road infrastructure delivered under both programs.

7. Assessment of Bank Performance

a. Quality-at-Entry

The Bank ensured that this Operation's PDOs and design were fully aligned with the country's strategic objectives to support the development of poor rural areas and ethnic minorities through improvement of transport connectivity. Following the Bank's advice, this operation was designed to use a PforR financing instrument for the first time in both sub-sectors where the GoV was used to implementation of IPFs. The Bank explained its advantages that the PforR would enable a focus on the results and provide the Recipient with flexibility in managing about 3,000 contracts in the total of 51 provinces, without the need to seek clearances from the Bank on civil works packages and overall Bank's micro-management of those packages but relying on the country's procurement and contract management systems. As per the Bank's recommendation, the Recipient also o incorporated a TA in this operation that would help enhance the technical capacity of the participating provinces in the implementation of this Operation. The Bank's advice was followed by the GoV in identifying and including a set of simple, clear, measurable and achievable DLIs and indicators in the Results Framework.

However, the Bank did not suggest a more outcome-oriented PDO to the Recipient to demonstrate transformations this operation could bring to the country and sector, especially because of achievements

of the previous projects and more advanced technical capacity of the Recipient. The PDOs were formulated at a low level of the results chain. Given that this was the fourth operation in the subsector and geographical area, the PDOs would have been expected to be pitched at an outcome level and measured by relevant and adequate indicators at outcome levels, which also lacked in the results framework. The PDOs definition did not adequately reflect intended outcomes (e.g., increased climate resilience and safety of the local road infrastructure, improved connectivity to economic opportunities or social services) that were eventually briefly noted in the ICR but without solid supportive evidence as the indicators related to increased climate resilience, improved road safety or improved connectivity to socio-economic opportunities were not included in the result framework.

Quality-at-Entry Rating
Satisfactory

b. Quality of supervision
According to the ICR (p. 2 para 5) the Bank team provided effective implementation support to the Operation, which covered 51 provinces because the team was based in the country office. During the COVID-19 pandemic the Bank team took advantage of digital platforms to continue providing support remotely to the implementing agencies. The Bank team also understood the importance of enhancing the government's technical knowledge, and, hence, facilitated knowledge sharing at the national and international levels. .

According to the Bank team (November 11, 2024), the Bank supported the Recipient through technical guidance during the operation implementation and several of the trust fund (TF) activities. The Bank mobilized six trust fund grants for studies to provide analytical and technical support to DRVN and the provinces for the effective implementation of both programs and capacity building. Those TF-funded activities introduced mechanisms for enhancing budget allocation to maintenance, implementation monitoring, institutional strengthening of national and local institutions, asset management, planning, bridge management, use of asset management systems, climate resilience, Community Inclusive Performance-Based Road (PBC) Maintenance, and engagement of women in safety and maintenance. In particular, the Bank helped to ensure the adequate quality of MTEPs prepared by the PPMUs through one of its TF activities. The Bank also demonstrated its commitment to gender inclusiveness issues through implementation of a TF-funded complementary activity on Women-led Local Road Network Safety and Maintenance Management and specifically guiding the Recipient on how to engage women's unions in infrastructure planning and implementation, and how to actively involve women, youths and veterans in community-based routine maintenance activities. During the interview on November 11, 2024, the Bank team highlighted that all the studies were well received by the government agencies and the outputs were institutionalized.

Despite the operation's good progress and anticipated overachievement of its targets, the Bank missed the opportunity to revise and scale up the PDOs, targets of DLIs, project indicators or introduce new indicators that would better reflect transformations and innovations of this operation. The Bank team also did not consider undertaking a restructuring to scale up the targets for several indicators whose targets were poorly planned and estimated at appraisal and were on track for being exceeded by around 80-400 percent.

The IA study of May 2021 reported that some roads and bridges experienced damages during the 2020 flooding, but the ICR missed the opportunity to discuss the impact of extreme weather events on the program results during the implementation time and clarify if those issues had been addressed before the closing of the operation or were yet to be addressed by the Recipient.

The Overall Bank performance is rated as satisfactory due to a few shortcomings during the supervision of this operation as discussed above.

Quality of Supervision Rating
Satisfactory

Overall Bank Performance Rating
Satisfactory

8. M&E Design, Implementation, & Utilization

a. M&E Design
The M&E design was simple and easy to manage. According to the PAD (para 42, p. 13), the provinces were to monitor and report results on an annual basis linked to the national planning and budgeting process and reports were to be disclosed for the public. The results framework consisted of three PDO indicators and 9 intermediate indicators, five of which were also DLIs; most of those indicators were output-oriented, including the indicators to monitor the operation's progress towards the PDO achievement. Given more advanced capacity of the implementing agencies that had been built over the previous three transport operations, the M&E design lacked an ambition in the selection and definition of indicators, namely (i) lack of outcome indicators to demonstrate the Operation's direct contribution to the achievement of the PDOs and addressing some of development challenges, e.g., access to socio-economic opportunities or services, etc. that were given prominence in the appraisal context and were eventually claimed by the ICR as achieved, (ii) significant reliance on output indicators even to evaluate the progress and achievement of the PDOs, (iii) poor planning of targets for almost half of the indicators, and (iv) lack of indicators to monitor the enhancement of resilience and/or safety to demonstrate added value of this operation and main difference from the previous rural transport projects, especially because these activities were included in the operation design. As reported by the ICR, five of 12 indicators had their targets exceeded by 80-400%, which cannot be explained by savings accrued from the exchange rates (ICR, p. 8, footnote 7) and the procurement of civil works packages (as per the interview with the Bank team on November 11, 2024).

b. M&E Implementation
The ICR (p. 18, para 73) states that M&E implementation was adequately implemented, with DRVN and PMU6 (procurement agency) being well familiar with the use of M&E system and staffed with a large team of qualified staff**.** Provincial DoTs and PMUs reported and verified results, including the DLIs, while DRVN and PMU6 (procurement agency) consolidated the reports from provincial entities. The ICR reports that progress reports were consolidated in a satisfactory manner and submitted on time. One of the IPF-funded TA activities aimed at strengthening the M&E capacity of government entities at the

national and local levels. DRVN and PMU6 provided guidance to provinces and communities how to improve verification procedures at the provincial and community levels. The DLI verification processes followed the verification protocols for all DLIs and confirmed the achievement of the reported results. An Impact Assessment study was carried out in the midway of the operation implementation period which gathered information on people's perception of the program results from focus group discussions in the participating provinces. There was no baseline study done before the start of the operation to compare the results before and after, and, overall, there was no triangulation to validate the findings gathered from the focus group discussions which affected the quality of the evidence presented in the Impact Assessment report.

c. M&E Utilization

The M&E system as designed and implemented was used by the Bank team during the implementation support missions to guide the Recipient and implementing agencies in monitoring the progress in the results framework and DLIs and addressing implementation issues to keep the operation on the track towards the achievement of the PDOs. The M&E system was used by the Recipient to monitor the progress of about 3,000 contracts in 51 provinces. The progress reports with M&E data prepared by the Recipient enabled the Bank task team to regularly and timely discuss progress in the planned activities, emerging issues and challenges that required more attention from the implementing agencies. Despite regular monitoring of the progress, no revision and scaling up of those targets was considered. It is not clear from the ICR if the M&E system is being used in the GoV's follow-up bridge and roads programs.

The M&E system of the operation is rated as Substantial due to some shortcomings, including simplistic design of the M&E system and lack of adequate planning of many targets despite the more advanced capacity of the implementing agencies and previous experience with the Bank-funded rural transport projects, and missing an opportunity to improve the quality and relevance of the M&E system during the implementation period.

M&E Quality Rating

Substantial

9. Other Issues

a. Safeguards

The potential environmental and social impacts of the associated PforR were addressed through the ESSA instrument OP 4.01 – Environmental Assessment, which was triggered because the Operation comprised two PforRs and IPF-funded TA. As per the Bank Policy for PforR, an environmental and social systems assessment (ESSA) was conducted to assess the Program systems for managing environmental and social effects, taking into account, among other things, the capacity to plan, implement, monitor, and report on the environmental and social mitigation measures, the scope for improvements, and the risks and related mitigation measures. Key findings of that ESSA were used to inform the definition of specific actions to improve environmental and social management outcomes of the Programs in the overall Program Action

Plan (PAP), and through TA and capacities implemented under the Program. The PAP was agreed with the GoV and integrated into legally binding agreement of the IDA credit. (PAD, p. 71, Annex 6).

Potential impacts on Indigenous Peoples were also dealt through the ESSA. Because a large part of the IPF-funded TA was to concentrate on capacity building and monitoring of activities in the areas with ethnic communities, the OP 4.10 on Indigenous Peoples was triggered.

The IPF-funded TA did not entail any potential large scale, significant and/or irreversible negative impacts. The TA targeted to improve social and environmental management capacity of MOT/DRVN's PMUs in order to ensure compliance with Vietnamese environmental requirements and environmental guidance in the Operation Manual (OM) (PAD, p. 71, Annex 6).

Environmental Safeguards. Both PforRs followed the national environmental management framework and safeguards management requirements specified in the Operational Manual. Environmental factors were considered in the screening for eligibility (to avoid natural protected areas), site selection and design of roads and bridges. The bridge program incorporated ethnic cultural elements into the design and construction of 17 bridges, a unique aspect that resulted from collaboration between various agencies and local ethnic communities. Local landscape features were preserved at specific sites. Mitigation measures were properly implemented at construction sites, including placement of signs and barriers, use of personal protective equipment (PPE), proper accommodation arrangements, reuse of excavated materials, site reinstatement and awareness-raising activities. The Independent Safeguard Monitoring Consultant (ISMC) confirmed that environmental management procedures were followed and documented. Although there were occasional lapses in site protection measures, these were addressed satisfactorily, and no environmental incidents occurred during the program implementation (ICR, p. 19, para 76).

Social Safeguards. No issues were reported on non-compliance implementation. Overall, social risk and impact management (including labor influx management, gender-based violence) were satisfactory with no reported cases. The Program benefited from the use of Voluntary Land Donation (VLD). Minor project impacts caused by land acquisition were adequately addressed through stakeholder engagement. The Program maintained a Grievance Redress Mechanism (GRM) and two cases were resolved and closed. The World Bank received one complaint related to cracks in a house caused by construction works, which was registered in the World Bank Grievance Redress Systems. The respective PPMU addressed it in a timely manner, and the case was closed.

b. Fiduciary Compliance

Financial Management. The ICR confirms that all three FM-related actions required in the PAP were adequately implemented. Those actions (Annex A, A Program Action Plan, pp. 10-11) included (i) medium term investment plan 2016-2020 (MTIP for 5 years) was prepared covering 89 percent of the program funding, with annual budget allocation plans being approved for implementation and 11 percent of the program funding to be included in the MTIP 2021-2025, (ii) annually, the Ministry of Finance (MoF) advised the Government on the allocated budget sufficient for the implementation to meet the operation progress and objectives, and (iii) every year, provinces prepared their annual Program financial statements which were verified for compliance bi-annually and found accurate by the IVA, and the DRVN established an internal financial audit team for internal financial management control. Financial management staff were found to be capable and experienced in carrying out the Program financial management responsibilities.

Audited Financial Statements were submitted on time and of acceptable quality, with no major financial management problems reported (ICR, p. 1, para 3).

Procurement

PforR. Five Procurement Implementation Actions (PIAs) were included in the PAP, with all of them confirmed by the ICR as completed or achieved (ICR, A. Program Action Plan, p. 9-10).

Those completed procurement and contract management actions in the PAP included: (a) all proposals for detailed designs, construction supervision and bids for civil works, whether below or above cost estimates, were duly evaluated and in compliance with regulations; no bid was rejected because it was higher than cost estimates or due to small deviations, (b) dependent (from Program Provinces or MoT) State-Owned Enterprises (SOEs) did not participate in the contracts, (c) at least 80 percent of the total value of contracts for consulting services and 80 percent of the number of contracts for works awarded annually were procured competitively, (d) no bidders on the local, national, or Bank debarment lists participated in contracts (PAD, p. 25, para 94). .

During the program implementation, community participation in procurement was actively promoted and practiced. Training program and workshops were held to strengthen local workers ability to participate in rehabilitation and maintenance works. The community-based maintenance manual and trainings helped increase the communities' capacity in construction and ownership of local road infrastructure.

The ICR (p. 1 para 2) states that contract management was successfully implemented. Both programs managed a sizable volume of contracts: 2,942 contracts for works, consultancy services for roads and bridges programs. The Roads Program included contracts ranging from 3 km to 46 km, with modalities of open bidding and direct contracting. The average contract values ranged between USD$50,000 to over USD$1million. Contractor selection for the Program adhered to Viet Nam's law, the Financing Agreement's provisions and the Program Action Plan. (ICR, p. 1, para 3).

c. Unintended impacts (Positive or Negative)

Not applicable.

d. Other

Preservation of ethnic minority cultures. The operation delivered 17 new bridges which were constructed with ethnic features artistically embedded in the handrails. These designs are unique to each province.

Gender and ethnic minority equality. The operation was implemented with a significant emphasis on women's participation and reduction of gender disparities. Women's unions were involved in infrastructure planning and implementation. According to the ICR, 70 percent of women and 80 percent of ethnic minority women in remote regions participated in the community consultations. The ICR highlights this as "particularly impactful for ethnic minority women in remote regions". The operation also engaged women in women-based rural road maintenance which was later broadened to community-based road maintenance model with the involvement of other community groups such as youths, veterans. Rural Road Maintenance

Trainings were customized to adjust their unique needs. “Women’s involvement in decision-making fostered local ownership and stewardship, improving travel safety and efficiency, reducing accident and drowning risks by 90 percent, and freeing time for rest and economic activities”. The ICR also claims that the operation “increased women’s income and household influence, ensured equal pay and benefits, and faced no gender-related complaints, empowering women economically and in decision-making” (ICR, p. 15, para 57), although the ICR fails to provide evidence to support these claims or refer to any credible sources.

The IA study (dated May 2021) claims that LRAMP’s bridges and roads have enhanced women’s mobility and independence because women do not need to rely on their husbands or children to drive them. Women have learnt to ride motorbikes or electric bicycles and ride them to the market every day, to weddings or community meetings, which was recorded in most of the communes in the five provinces surveyed as part of this IA study. In addition, riding a motorbike allows women save time, become more independent in the agricultural activities as they can now transport fertilizers to the field themselves without the help of their male relatives. The IA’s findings are made based on the focus group discussions in the mid-way of the operation implementation, but not based on the comparison of the “before” and “after” situations.

10. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Highly Satisfactory	Satisfactory	Due to lack of adequate justification for significant overachievements of output-oriented targets and lack of adequate outcome-oriented indicators to report potential positive impacts of the operation.
Bank Performance	Highly Satisfactory	Satisfactory	Due to shortcomings during the preparation and implementation support.
Quality of M&E	High	Substantial	Due to shortcomings at the design and implementation stages
Quality of ICR	---	Modest	

11. Lessons

If the PforR is complemented by an IPF TA, the latter may help build the capacity in the gap areas. The implementation of both Bridge and Road PforRs in this operation benefited from the implementation of the TA which supported trainings and capacity building of government agencies in the use of asset management systems, preparation of MTEPs and engagement of communities in routine road maintenance. These TA activities were essential for the achievement of the targets set in the results framework.

If trainings in the use of asset management systems are complemented by the expert's technical guidance on the ground, this may contribute to better understanding of government officers in the practical application of these systems. Including targets for the use of these systems in the results framework or DLIs is not sufficient for the achievement of those targets. This experience of this operation demonstrated that the implementing agencies benefited from the actual guidance of the technical expert provided by the Bank under one of the TF-funded TAs to help them use those systems and prepare quality MTEPs.

If local communities are directly involved in the routine maintenance of local road network, this may help increase their ownership of and commitment to the roads that they use daily. This operation supported both the training of communities in routine maintenance and provided them with jobs through involvement of road maintenance services. Bceause of this, they learn to appreciate the local road network. This operation has built the communities' sense of local road network ownership and importance of road routine maintenance, which is necessary for the provision of continued adequate routine maintenance to slow down the premature deterioration of the created or rehabilitated road assets.

If climate change risks are not properly assessed and adequate mitigation measures integrated in the operation design, the operation may risk losing a share of the investments. An operation implemented in a climate vulnerable country is always at a risk of having its infrastructure assets tested by the climate change impacts at some point of its implementation. While a contingency emergency response component (CERC) was not included in the operation design, the designs for local roads and bridges were prepared as per the current national standards with Vietnamese climate guidance, meaning based on the historic data of the past flood events. That approach minimized the scale and extent of the damages from a series of natural disasters in 2020, which were subsequently addressed before the closing date of this operation. But if these disasters had occurred a year or less before the closing date, the operation may have ended up with either extension to support the restoration efforts or closing without the restoration of the damaged infrastructure that had been created under this operation. In future, either inclusion of a CERC and/or preparation of designs based on the modeling of future climate change impacts should be considered in infrastructure operations climate vulnerable countries to minimize the risk of losing the benefits.

12. Assessment Recommended?

No

13. Comments on Quality of ICR

The ICR provides a detailed overview of the two Programs and IPF-funded TA and a useful summary of the Program Action Plan that summarized key achievements in the fiduciary and safeguards aspects. The ICR's lessons and recommendations are presented based on the operation's experience.

The ICR, however, has several significant shortcomings. It did not entirely follow the OPCS Guidelines for the PforR ICR. Examples include (i) provision of analysis of the results areas and the IPF TA activities instead of

analysis of the achievement of each PDO in the Efficacy section, and (ii) lack of analysis of institutional strengthening objective. The efficacy evaluation would have benefited from a structured analysis of each PDO efficacy in line with the OPCS Guidelines for the PforR Operations.

The ICR contains some unsubstantiated claims regarding additional achievements without providing supporting evidence (e.g., significant non-farm employment opportunities with higher income for local labor, increased access to vocational training, savings in transportation costs and increases in income, increase in women's income and household influence, equal pay and benefits, improved travel safety, etc.). The ICR could have been more candid to reflect on potential risks to the development outcomes of the operation and limits its discussion to one low risk despite several risks and challenges explicitly reflected in the IA study report of May 2021 (e.g., lack of funding for commune and local roads, training of communities for community-based maintenance, etc.) or other obvious risks (e.g., climate change or extreme weather event).

The quality of the ICR is rated as modest.

a. Quality of ICR Rating
Modest