Public Disclosure Authorized

Report Number: ICRR0023105

IEGSD (Unit 4)

1. Project Data

| Project ID P148048 | • | Project Name Third Secondary and Local Roads Project | | |
|-----------------------------------|--|--|---|--|
| Country Georgia | | Practice Area(Lead) Transport | | |
| L/C/TF Number(s) IBRD-84020 | Closing Date (Original) 30-Sep-2018 | | Total Project Cost (USD) 70,826,706.35 | |
| Bank Approval Date 03-Jul-2014 | Closing Date (Actual) 31-Dec-2021 | | | |
| | IBRD/II | DA (USD) | Grants (USD) | |
| Original Commitment | 75,000,000.00 | | 0.00 | |
| Revised Commitment | 75,000,000.00 | | 0.00 | |
| Actual | 70,826,706.35 | | 0.00 | |
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| Prepared by | Reviewed by | ICR Review Coo | ordinator Group | |

2. Project Objectives and Components

Peter Nigel Freeman

a. Objectives

Ihsan Kaler Hurcan

According to the International Bank for Reconstruction and Development (IBRD) Loan Agreement (p.5) dated July 9, 2014, the project objective is "to reduce transport costs on project roads and improve the sustainability of the secondary and local road asset management." The wording in the project appraisal document (p.6) dated May 30, 2014 was slightly different but without any material change in project objectives: "to reduce transport costs on project roads and improve the sustainability of road asset management in the secondary and local project road network."

Kavita Mathur

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 26-Jun-2018

- c. Will a split evaluation be undertaken?
 No
- d. Components

According to the loan agreement, the project consisted of three components.

- **A. Rehabilitation and Improvement of Secondary and Local Roads.** (Appraisal cost: US\$90.36 million; actual cost: US\$86.71 million). This component was to finance rehabilitation and improvement of 53 kilometers (km) local roads and 147 km of secondary roads including 15 km of the Gurjaani-Bakurtsikhe bypass, preparation of detailed designs of 110 km or roads, supervision and quality assurance services of all project-financed civil works, and preparation of designs and supporting studies for future transport projects.
- **B. Capacity Building and Strengthening in Local and Secondary Roads' Management.** (Appraisal cost: US\$1.00 million; actual cost: US\$0.88 million). This component was to finance consultancy services, training and provision of goods for Ministry of Regional Development and Infrastructure's (MRDI) capacity building in local roads asset management, conducting of a study to determine the feasibility of piloting local roads routine maintenance using a micro-enterprise approach, strengthening the capacity of Roads Department (RD) in project management and implementation and secondary roads management, and institutional support to the Transport Reform and Rehabilitation Center (TRRC) in project financial management and audits.
- **C. Road Safety Technical Assistance.** (Appraisal cost: US\$2.20 million; actual cost: US\$4.76 million). This component was to finance the development and implementation of road safety measures on secondary and local roads in Imereti and Shida Kartli regions that were outside the scope of the rehabilitation and improvement works in Component A, such as sidewalks, pedestrian crossings, speed bumps, barriers, and blinking traffic lights near schools and other public places. This component was also to finance education and publicity campaigns about road safety targeting residents, and consultancy services and training to enhance engineering, enforcement, and emergency response capacity in road safety management.

Revised Components

Upon the request of the MRDI's Regional Development Department, at the first restructuring in June 2018, the study for assessing the creation of microenterprises for local maintenance was replaced with a study tour to a country with decentralized management of local roads. The ICR (p.9) states that this revision was

to support the achievement of the project objective to build local roads management capacity in Georgia. The project team further commented that, during project implementation, a parallel dialogue with the Georgian authorities including the Asian Development Bank and the European Investment Bank, the MRDI and RD's preference for the maintenance of roads shifted from maintenance by micro-enterprises towards Output and Performance-Based Road Contracting (OPRC) that including long-term contracting of road maintenance under a new nationwide zoning. To support the implementation of OPRC, the preparation of an OPRC contract to be implemented in Guria Region under a follow-on project was added to the project scope—Guria was a non-project region. Additionally, road safety education and awareness, and support to road safety enforcement and emergency services under the third component were cancelled because the government decided to finance them through grants from other donors. The funds for these cancelled activities were reallocated to the development and implementation of road safety measures on additional secondary and local roads under the third component increasing its scope. Lastly, the scope of the rehabilitation and improvement of roads under the first component was increased by 80 km to use US\$17 million of savings from lower-than-expected contract prices for rehabilitation and significant depreciation of the local currency against the US dollar (ICR, p.10).

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates Project Cost: The total project cost was originally estimated at US\$93.75 million including US\$0.18 million for front-end fees. On December 31, 2021, the project closed with a total cost of US\$92.36 million.

Financing: At appraisal, the IBRD loan was estimated at US\$75.00 million. By project closing in December 2021, the project had disbursed US\$70.83 million. The balance amount was cancelled.

Borrower's contribution: At appraisal, the borrower's contribution was estimated at US\$18.75 million. At project closing, the borrower's contribution stood at US\$21.53 million.

Restructurings: The project was restructured twice:

First Restructuring (Level 2 – June 26, 2018): The project closing date was extended by 21 months from September 30, 2018 to June 30, 2020 to allow time for the rehabilitation of additional 80 km of secondary roads to be financed by project savings, and to provide continued support to the Gurjaani bypass contract through to its completion on July 18, 2019 that was beyond the project's original closing date. In line with the increase in the project scope, some intermediate outcome indicators' target values were increased, such as the length of secondary roads from 147 km to 222 km. However, the target value for the rehabilitated local roads decreased from 53 km to 47.6 km following the verification of the actual length of the roads during project implementation. Because of the achievement of the target values of the two outcome indicators, i.e., reduction in vehicle operating costs for cars and reduction in vehicle operating costs, their target values were revised down increasing the ambition of the project. Additionally, the intermediate indicator "Safe Village Program implemented in Imereti Region" was replaced with "road safety engineering improvement measures implemented in Imereti and Shida Kartli regions" following the change in the related project activity (see Revised Components for changes in project activities).

Second Restructuring (Level 2 – June 29, 2020): The project closing date was extended by an additional 18 months from June 30, 2020 to December 31, 2021 to allow the completion of the Gurjaani bypass construction, which was delayed by two years because of issues related to land acquisition and the suspension of project activities in March 2020 following the onset of COVID-19 pandemic. The project

closing date extension would also allow time for the completion of the additional road rehabilitation activities—that would be decided at a later stage—to be financed using the unallocated funds of US\$4.4 million.

Dates: The project was approved on July 3, 2014. The Loan Agreement was signed on July 9, 2014, and the loan became effective on October 9, 2014. The Mid-Term Review was conducted in September 2016. The original project closing date was September 30, 2018. The project closing date was extended by 39 months, and the project closed on December 31, 2021. The reasons for project closing date extensions are given in the restructuring entries above.

Reason not to undertake a split assessment of the project outcome: The target values of two key associated outcome indicators and some intermediate result indicators were revised in line with the increase in the scope of the project and achievement of some of the targets during project implementation. This resulted in an increase in the ambition of the project and does not require a split assessment of the project outcome.

3. Relevance of Objectives

Rationale

The project objectives are substantially aligned with the World Bank's current strategy as defined in the Country Partnership Framework for FY2019-22 (CPF). The project sought to address the development problem of insufficient secondary and local roads capacity and road asset management that is one of the barriers to equal socio-economic development of regions in Georgia. This development problem fits under the first focus area of the CPF, i.e., enhancing inclusive growth and competitiveness, and contributes to the achievement of "Objective 1.2: Improve connectivity and integration" through ongoing support to the East-West Highway Corridor and secondary roads that is expected to reduce spatial disparities and support poor and vulnerable people in rural and remote areas to better connect to services, jobs, markets, and other opportunities (CPF, p.23). The project was to support the achievement of this objective through the physical improvement of secondary and local roads and building technical and management capacities of institutions in various levels for sustained maintenance of these roads. However, it was not defined how these would lead to the achievement of improved connectivity and integration.

The project objectives are substantially relevant to the country context. The project objectives support the government's strategic objective to improve the transport sector for economic growth and increased prosperity. However, while the project objectives are appropriately pitched for development status and capacity in the country as described in the CPF, the expected results from project's intervention were more in the form of intermediate-outcomes rather than outcomes. The expected outcomes of reduced transport costs and improved sustainability of road asset management are not defined. The outcomes were defined as reduced travel costs, i.e., reduction in vehicle operating costs and travel time, and sustained road asset management, i.e., maintained quality of pavements. These outcomes are direct outputs of project activities. While the objective remained relevant throughout the project cycle and was a necessary response to a development gap in Georgia, the lack of clarity in the project formulation around what outcomes would be achieved through reduced travel costs and sustained road asset management was a significant gap. The causal chain between funding and outcomes related to reduced travel costs was clear, albeit with most targets being at output level, as the objective was closer to the output level, rather than the outcome level.

Furthermore, the project objectives were not adequately formulated to capture the outcomes of the road safety improvements on roads that were outside the rehabilitation scope.

The World Bank has supported road rehabilitation and road sector capacity building under the Secondary and Local Road Project series since 2004. This project is the third in the series. While the project design evolved to include diversified tools as the series progressed—for example, the second project included output and performance-based road contracts, and the project under review included detailed road safety measures—all three projects had similar objectives. The project objectives did not evolve to include outcomes consistent with progress over time as compared with earlier projects in the series.

Overall, the relevance of objectives is rated Substantial.

Rating

Substantial

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

To reduce transport costs on project roads.

Rationale

Theory of Change for Objective 1

The project's input—IBRD loan—was to be used to finance civil works for the rehabilitation and improvement of the selected secondary and local roads. The expected outputs were improved road conditions. These outputs were expected to lead to reduced vehicle operating costs defined as lower vehicle service costs and fuel costs, and reduced travel time; hence, achieving the project objective to reduce transport costs. Sustainability of these outcomes were to be achieved through the improvement of road asset management capacity, including maintenance, under the second objective. The causal pathways from inputs to outcomes were valid and direct, and the achievement of the outcomes and project objectives could be attributed to the project's intervention assuming that other important factors that affect travel costs do not change, such as fuel prices and vehicle service costs. The project-financed road safety measures implemented on non-rehabilitated roads in Imereti and Shida Kartli regions did not support the achievement of the first objective as these were not captured by the results framework although improved road safety should be expected to lead to fewer accidents; hence, lower car repair costs.

Outputs

• Length (km) of rehabilitated secondary roads. The original target was to rehabilitate 147 km of secondary roads. At the first restructuring, the target was increased to 222 km in line with the increase in project scope. The achievement was 222 km. The project area consisted of nine regions, i.e.,

- Kakheti, Imereti, Kvemo Kartli, Mtsketa-Mtianeti, Shida Kartli, Racha-Lechkhumi, Kvemo Svaneti, and Samtskhe-Javakheti, and the Gurjaani-Bakurtsikhe bypass—15 km.
- Length (km) of rehabilitated local roads. The original target was to rehabilitate 53 km of local roads. At the first restructuring, the target was decreased to 47.46 km following the verification of the actual length of the local roads that needed rehabilitation. The achievement was 47.46 km.
- Roads in good and fair condition as a share of total 5,446 km classified roads. At project start, the percentage of classified roads in good and fair condition was 62.30 percent. The target was to increase this to 66.38 percent. The achievement was 66.21 percent, slightly lower than the target value.
- Improved condition of project roads (measured by International Roughness Index IRI). The ICR (footnote 3, p.8) defines IRI as "a standardized method for measuring riding quality for road users. It measures pavement roughness in terms of meter per kilometer." Therefore, lower IRI numbers indicate smoother pavements. Proper and adequate maintenance ensures sustained road quality captured by IRI. This indicator, therefore, indirectly captures the sustained planning, financial, and technical capacities in road asset management in the medium and long-terms (ICR, p.8). At project start, the IRI was 15.07. At project closing, the achievement was 2.86, better than the target 3.0.

Outcomes

- Reduction in vehicle operating costs for cars (GEL/km). The baseline value was Georgian lari (GEL) 0.73 per km. The original target was GEL 0.57 per km, which was revised to GEL 0.42 per km at the first restructuring because the original target had already been achieved. The achievement was GEL 0.42 per km as targeted but the evidence is insufficient whether this achievement was triangulated with other data. Vehicle operating costs are defined as costs related to fuel consumption, tires, vehicle maintenance, repairs, and mileage-dependent depreciation costs. The Highway Development and Management Model (HDM-4) was used to measure these costs (ICR, p.12).
- Reduction in vehicle operating costs for trucks (GEL/km). The baseline value was GEL 2.33 per km. The original target was GEL 1.70 per km, which was revised to GEL 1.31 per km at the first restructuring because the original target had already been achieved. The achievement was GEL 1.31 per km as targeted but, similar to the previous indicator, the evidence is insufficient whether this achievement was triangulated with other data.
- Reduction in travel time (average vehicle speed, km/hour). This achievement was measured by a proxy indicator of average vehicle speed, rather than the measurement of actual travel times before and after the project. At project start, the average speed of vehicles was 40 km per hour. By project closing, the average speed increased to 60.05 km per hour, slightly higher than the target of 60 km per hour.

The project significantly improved the road conditions in the project area as evidenced by the drop in the IRI from 15.07 to 2.86. This should be expected to result in improving riding quality because of less tire-friction, and fewer or no potholes or cracks. (The safety measures implemented along with the rehabilitation works on these roads should be expected to lead to lower car repair costs because of fewer accidents, but these were not included in the calculation of vehicle operating costs.) The outcomes are reduced vehicle operating costs and faster travel time. The completion of the road section that now bypasses the town of Gurjaani contributed to the increase in average vehicle speed. The ICR (p.13) comments that these achievements led to improved access of the rural population in the project area—around 130,000 people—to services and markets;

according to the RD's regular surveys, the Average Annual Daily Traffic in the project area increased by 137 percent compared to the level projected at appraisal (ICR, p.13).

Overall, the project's efficacy in achieving the project objective to reduce transport costs on project roads is rated **Substantial**.

Rating Substantial

OBJECTIVE 2

Objective

To improve the sustainability of the secondary and local road asset management.

Rationale

Theory of Change for Objective 2

The project's inputs—IBRD loan and technical assistance—were to be used to finance technical and management capacity building activities for MRDI, carrying out of a study to determine the feasibility of piloting local roads routine maintenance using a micro-enterprises approach for local roads, training and study tours on innovative management practices and technologies for RD's secondary road asset management. The project appraisal document or the loan agreement do not identify the contents of "technical and management capacity building activities." The outputs expected were a study about the feasibility of a micro-enterprises approach for road maintenance, and some number of members of RD staff trained and attended study tours. The expected outcomes from these activities are not defined; hence, it is not clear how the project's intervention would lead to the achievement of the project objective to improve the sustainability of the secondary and local road asset management. Overall, the causal pathways from inputs to outcomes—which were not defined—were not valid nor direct, and the achievement of the outcomes and project objectives could not be attributed to the project's intervention. Furthermore, as was the case with the achievement of the first objective, the project-financed road safety measures under the third component did not support the achievement of the second objective, either.

Outputs

- MRDI's active role in coordination of preparation of Annual Programs by Municipalities based on the Guidelines. Roads Department provided training in planning and implementing road maintenance operations to local municipalities that lacked capacity. Three or four representatives from each municipality attended these trainings. The topics included in these trainings were contract execution, technical standards, communication with citizens and the Roads Department, resettlement, environmental public monitoring, and the grievance mechanism. The results framework did not include any indicator to capture these outputs in detail. The evidence is insufficient as to how MRDI had an active role in coordination of Annual Program by municipalities based on the guidelines, which were not defined.
- Road Maintenance Contracts: The project financed the preparation of a Rehabilitation and Maintenance Output and Performance-based Road Contract (OPRC) in Guria Region which was added to the project scope at the first restructuring. This contract is currently implemented under the

World Bank-financed the Secondary Road Asset Management Project. The results framework did not include any indicator to capture this output.

- Increase in annual rehabilitation/maintenance budget allocations (GEL/km) for secondary roads by 4.5 percent a year. At appraisal, the budget allocated for one kilometer of road was GEL 14,400 (around US\$8,200). The original target was to increase this budget to GEL 17,172 (around US\$9,760), which was revised up to GEL 27,388 (around US\$11,605) at the first restructuring. The achievement was GEL 31,472 (around US\$10,630). Although the allocation amount increased, between 2014 (appraisal) and 2021 (project closing) GEL depreciated against USD from 1.76 to 2.96. In USD terms, the achievement was lower than the target value. On the other hand, during the same period, the consumer price index in Georgia increased by 31.4 per cent. Compared to the price index, the achievement at project closing was higher in real terms. Since maintenance costs at appraisal and project closing were not reported, it was not possible to know whether the increased budget allocations would be sufficient to cover these costs. Because of these reasons, an assessment of the achievement in rehabilitation and maintenance budget allocation amounts is not possible. Furthermore, since the project did not finance any activity that would lead to an increase in the rehabilitation and maintenance budget, the achievement cannot be attributed to the project's intervention. This indicator was added to monitor the government's commitment to the allocation of sufficient funds for road maintenance.
- The study tour that was added to the project scope at the first restructuring could not be implemented because of COVID-19 pandemic restrictions.

Outcomes

• Improved condition of project roads (measured by International Roughness Index – IRI). This indicator was used for the achievement of this objective (please see Outputs under Objective 1 for detailed information about the indicator). This indicator measured the road conditions at the time of project evaluation. Therefore, it is a one-time measurement and does not show the improvement in the sustainability of road asset management.

The theory of change for Objective 2 was weak. The project activities and outputs did not support the achievement of the sustainability aspect of the objective. The causal chain from the project activities and outputs to outcomes—which were not defined—were not valid nor direct. The results framework did not include "indicators to assess the existence of processes that ensure sustainability of the good road condition" (ICR, p.21) and help test the results chain. The evidence is insufficient for improved technical and management capacities of the MRDI, RD, and municipalities in sustainable road asset management.

The project team commented that based on the experience gained in SLRP-II in the implementation of OPRCs, the project further supported the refining of this kind of contract for sustained maintenance of secondary and local roads. The RD is currently implementing the OPRC prepared for Guria region. The expectation is that the OPRC will mainstream this road maintenance contract type in Georgia under the zoning that clearly defines the responsibilities of the RD and the municipalities. The project team supported this development through a parallel dialogue with the authorities. It should also be noted that during the implementation of this project, there were multiple World Bank-financed road projects in Georgia implemented by RD. The technical assistance activities implemented under those projects' interventions should be taken into consideration in assessing the World Bank's overall contribution to the improvement of the sustainability of road asset managements. For example, the Secondary Road Asset Management Project exclusively focused on the improvement of road asset management. The project team also commented that the project

resulted in a better dialogue between the RD and the municipalities. The municipalities are expected to have an improved capacity in planning but continuous support from the RD for road maintenance contract execution under the RD's zoning system. The municipalities do not have sufficient capacity to implement OPRC contracts yet.

Overall, the project's efficacy in achieving the project objective to improve the sustainability of the secondary and local road asset management is rated **Modest**.

Rating Modest

OVERALL EFFICACY

Rationale

The project successfully rehabilitated around 270 km of secondary and local roads, and improvement of the road conditions resulted in reduced travel costs both in terms of vehicle costs and travel time but there were some shortcomings in triangulating the findings. The project's efficacy in achieving the project objective to reduce travel costs on project roads is rated Substantial. However, the project's intervention was insufficient to achieve the second objective. Some project activities were not clearly defined, such as technical and management capacity building of MRDI. Outcomes expected from the project's limited outputs, such as a study on micro-enterprise road maintenance and trainings and studies to RD staff on road maintenance, were not defined. Hence, a direct causal link could not be established between the project activities and outputs and the achievement of the second objective, and evidence was insufficient whether the project's intervention resulted in the sustainability of road asset management. Therefore, the project's efficacy in achieving the second objective to improve the sustainability of secondary and local road asset management is rated Modest.

Overall, the project efficacy in achieving the project objectives is rated **Substantial**.

Overall Efficacy Rating

Substantial

5. Efficiency

Economic Analysis

At appraisal, a "with the project" and "without the project" economic analysis was conducted (PAD, p.45). The benefits were defined as the savings from vehicle operating costs and travel time as a result of road conditions that improved under the rehabilitation works. Costs were defined as rehabilitation costs and maintenance costs. The assumptions are conservative; they did not include quantifiable benefits from increased economic and

social benefits stemming from the rural population's improved road access. A cost-benefit analysis was conducted using the World Bank's Highway Development and Management Model (HDM-4). The analysis resulted in an average Economic Internal Rate of Return (EIRR) of 28.9 percent with EIRR varying from 16 percent to 64 percent for the 23 road sub-sections and the Gurjaani bypass financed under the project. The Net Present Value (NPV) calculated at a discount rate of 12 percent was around GEL 105.5 million. The evaluation period was 20 years. Following the addition of the 12 new road sub-sections at the first restructuring, the average EIRR was calculated at 23.2 percent, and the NPV of GEL 217 million.

At the time of project evaluation, an economic analysis was conducted replicating the analysis conducted at appraisal with updated values for project costs and traffic density. The average EIRR was calculated at 27.3 percent and the NPV at GEL 201.6 million. The ICR (p.17) explains the reason for the drop in NPV because of an increase in the road rehabilitation cost per km. The project team commented that the inflation rate and depreciation of GEL against the USD were taken into consideration in the calculations; hence, the NPVs calculated at project restructuring and project evaluation are higher than the NPV calculated at appraisal. It should also be noted that the loan savings were used to finance additional road infrastructure investments resulting in an increase in the project scope without increasing its total cost.

Administrative and Operational Efficiency

The first project closing date extension of 21 months was required to allow time for the completion of the rehabilitation of 12 roads added at the first restructuring. This did not adversely affect project efficiency. However, because of the issues related to the design modification, addendum to the Resettlement Action Plan, and the onset of COVID-19 pandemic, the Gurjaani bypass was delayed and led to an additional 18 months of project closing date extension. By project closing, ten resettlement compensations were still pending because of absentee owners and mortgage issues (ICR, p.24). There were some inefficiencies in procurement related to technical assistance activities. The signing of contracts with three individual consultants for conducting a study to determine the feasibility of local roads routine maintenance using a micro-enterprises approach had been pending for one year, when the MRDI decided to cancel this activity (see Revised Components in section 2.d). It was replaced by a training and a study tour program for the staff of municipalities on planning and budgeting of local road asset management. The study tour that was to take pace in 2020 did not materialize because of COVID-19 pandemic. Procurement challenges were common during project implementation because of the initial low procurement capacity of the RD and delays in concluding procurement packages (ICR, p.24).

Overall, the project's efficiency in achieving the project objectives is rated Substantial with moderate shortcomings in administrative and operational efficiency.

Efficiency Rating

Substantial

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 | ✓ | 28.90 | 96.00 □ Not Applicable |
|--------------|---|-------|---------------------------|
| ICR Estimate | ✓ | 27.30 | 93.00 □ Not Applicable |

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

6. Outcome

The relevance of the objectives is rated Substantial. The overall efficacy of the project in achieving the project objectives is rated Substantial; however, the efficacy of the project in achieving the second objective to improve the sustainability of the secondary and local road asset management is rated Modest because of insufficient identification of expected outcomes and lack of evidence for the achievement of the sustainability aspect of the objective. The project's efficiency in achieving the project objectives is rated Substantial with moderate shortcomings in administrative and operational efficiency. In accordance with the Bank guidance (p.38), the project outcome is rated Moderately Satisfactory because of the "modest achievement of one or more of the objectives/outcomes used in the assessment of overall efficacy."

a. Outcome Rating
 Moderately Satisfactory

7. Risk to Development Outcome

Overall, insufficient maintenance risk constitutes a moderate risk for the sustainability of improved road conditions:

Financial Risk: Currently, the RD maintains roads under its management through three-year contracts on a zonal structure covering the whole country and currently has sufficient funds for maintenance activities (ICR, p.25). If funds from the MRDI and the Municipal Development Fund—a public fund assisting the enhancement of institutional and financial capacities of local self-governing entities—to the municipalities are insufficient, this can adversely affect the sustainability of road maintenance activities.

Institutional Risk. Since 2019, the RD has been supporting the capacity development of 63 municipalities and cities through training activities, which are responsible for the management of local roads under their jurisdictions. However, compared to the RD, municipalities and cities have lower capacity to maintain local roads. Furthermore, turnover of trained personnel both at the RD and municipalities is a risk to sustain road asset management capacities.

8. Assessment of Bank Performance

a. Quality-at-Entry

The development of the transport sector including the improvement of road conditions, among other things, was of high strategic importance for the Government of Georgia to create a favorable environment for regional socio-economic development and to improve living standards as outlined in the Georgia Regional Development Strategy 2010-17 (PAD, p.5). The project's approach to rehabilitate roads to improve their conditions that would be expected to reduce travel costs was straightforward. However, the project's approach to achieve the second objective to improve sustainability of road asset management was insufficient. Although the project was to put more "emphasis on building the management capacity for sustainable routine maintenance of local roads (PAD, p.10)" the project design did not include project activities that would be expected to an improvement in the sustainability of road asset management. The outcomes of the technical assistance activities were not defined; the M&E design had significant shortcomings in capturing the achievement of Objective 2. Additionally, the expected outcomes were direct outputs of the project activities; the project formulation lacked clarity around what outcomes would be achieved through reduced travel costs and time and sustained road asset management.

The fiduciary and environmental aspects and implementation arrangements of the project were adequate benefiting from the previous project's arrangements. An economic analysis was sufficiently conducted for the road rehabilitation works. Technical aspects of the project benefited from the experience gained and lessons learned in the previous two projects in the SLRP series, such as incorporation of road safety audits in road designs. As the project implementing agency, the RD had already acquired experience in implementing World Bank-financed SLRP-1 and II projects, but the RD's procurement capacity was weak that led to delays in early project implementation. Most of the risks were adequately identified and mitigation measures were in place. While the risk stemming from potential land acquisition and resettlement because of the Gurjaani bypass construction was identified, the mitigation measures were not sufficient to prevent a delay in project implementation that, together with the adverse impacts of COVID-19 pandemics, led to a project closing date extension by 18 months.

Overall, the quality-at-entry is rated Moderately Satisfactory because of moderate shortcomings in identification of outcomes, project design related to the achievement of Objective 2, and M&E design in capturing the sustainability aspect of Objective 2.

Quality-at-Entry Rating Moderately Satisfactory

b. Quality of supervision

Supervision missions were held every six months until the onset of COVID-19 in March 2020 after which virtual missions were held. Before the pandemic, the World Bank project team visited project sites spread over a geographically wide area. The project team's focus was adequate on the development impact of the project through the improvement of road conditions. While the project was restructured timeously to use project savings for the rehabilitation of additional road sections, the project team's supervision of the technical assistance activities was insufficient. The main activity of the preparation of a study for road maintenance using micro-enterprises could not be implemented and was canceled because of MRDI's changing priorities and the move towards OPRC to maintain roads under a zonal system. Because of the COVID-19 restrictions, the study tour added to the project could not be conducted. Technical assistance activities were limited with the training of the municipalities' staff in road management and preparation of a

Rehabilitation and Maintenance Output and Performance-based Road Contract (OPRC) in Guria Region. The project was not restructured to improve the efficacy of the project in achieving the second objective (but as discussed in the efficacy section, the project's limited contribution and the project team's focus on road asset management capacity improvement should be assessed by taking into consideration the other World Bank-financed projects implemented at the same time).

The project team successfully supported the authorities through a policy dialogue in developing OPRC as the main contractual format for road maintenance in the medium and long-term. However, the project objective was not revised to include the outcomes expected from the implementation of road safety measures in Imereti and Shida Kartli regions.

Fiduciary aspects of the project were sufficiently supervised whereas the supervision of land acquisition and resettlement activities was insufficient despite the project team's regular follow up of the issue at the Ministry of Finance level. The project team's response to COVID-19 pandemic was appropriate. The project team supported the RD in the introduction of monitoring systems and reporting requirements on precautionary measures implemented by contractors on project sites and consultants and monitoring of COVID-19 cases (ICR, p.25) while monitoring the procurement activities and providing support to the RD under both SLRP-II and the project under this review.

Overall, the quality of supervision is rated Moderately Satisfactory because of project team's insufficient focus on the development impact of technical assistance activities.

Quality of Supervision Rating Moderately Satisfactory

Overall Bank Performance Rating Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

While the objectives were clearly specified, they were closer to the output level rather than the outcome level; the project objective formulation lacked clarity around what outcomes would be achieved through reduced travel costs and time and sustained road asset management. The theory of change for Objective 1 was adequately reflected in the results framework. However, the theory of change for Objective 2 had significant gaps. The outcomes expected from the technical assistance activities were not defined; hence, a direct causal link could not be established between project activities/outputs and the achievement of the second objective. The indicators were sufficient to encompass the outcomes of Objective 1, i.e., reductions in vehicle operating costs and travel time—the latter through the proxy variable of increase in average vehicle speed. The results framework did not include any indicator to capture the existence of processes that would ensure sustainability of good road conditions; hence, the sustainability of road asset management (ICR, p.22). Intermediate outcome indicators were sufficient to capture the contribution of the operation's activities and outputs toward achieving Objective 1-level outcomes, but not for Objective 2 for which no outcome was defined. The indicators related to Objective 1 were specific, measurable,

achievable, relevant, and time-bound, whereas the indicators related to Objective 2 were not specific, measurable or relevant. There was a mismatch between the project activities and indicators related to Objective 2. The M&E design and arrangements were well-embedded institutionally; RD was responsible for M&E through its dedicated M&E unit.

b. M&E Implementation

The project benefited from the M&E arrangements set up for SLRP-II. The M&E unit of RD adequately carried out M&E data collection, measured the indicators in the results framework, and reported them in semi-annual progress reports, which were submitted on time. The ICR (p.22) notes that the M&E system used sound methodology and quality control. However, the achievement of some indicators in GEL/km were identical to the target values in decimals, such as GEL 0.42 reduction in vehicle operating costs for cars per km matching the target of GEL 0.42 per km, and GEL 1.31 reduction in vehicle operating costs for trucks per km matching the target of GEL 1.31 per km. The ICR does not report whether these achievements were triangulated with additional qualitative or quantitative findings. Weaknesses in the M&E system in capturing the outcomes of the technical assistance activities were not corrected during project implementation. Since RD has been implementing M&E functions and processes since the start of the SLRP series, it is highly likely that these will be sustained after project but with moderate shortcomings.

c. M&E Utilization

M&E findings were adequately reported to the government authorities and the World Bank. They were also used to increase the scope of the project to rehabilitate additional road sections. M&E data were sufficiently used to provide evidence of achievement of outcomes related to Objective 1 but not for Objective 2. M&E findings, or lack of them, did not lead to a formal shift in implementation direction of technical assistance activities to ensure the achievement of Objective 2. Lastly, the ICR does not report whether the M&E data and findings would inform ongoing or subsequent interventions in the road sector.

Overall, the M&E quality is rated Modest. While the M&E system was overall sufficient to assess the achievement of Objective 1 and test the links in the results chain, there were significant shortcomings in the M&E design and implementation in capturing the outcomes of technical assistance activities and the achievement of Objective 2.

M&E Quality Rating Modest

10. Other Issues

a. Safeguards

At appraisal, the project was classified as Category B under Environmental Assessment (OP/BP 4.01) and triggered Involuntary Resettlement (OP/BP 4.12) safeguard policy.

Environmental Assessment (OP/BP 4.01): The project was classified as Category B because of the minimal, site-specific, and manageable environmental impacts of the road rehabilitation works to be implemented within the existing right-of-way of the roads except the construction of the Gurjaani bypass. An Environmental and Social management Framework (ESMF) was designed under SLRP-II. The RD updated that ESMF to include SLRP-III—the project under review. Upon a public consultation meeting, the ESMF was re-disclosed in Georgia and on the World Bank's InfoShop in March 2014. Site specific Environmental Management Plans (EMPs), including the 12 road sections added at the first restructuring, were prepared and disclosed. The specialized environmental unit within the RD monitored the implementation of the safeguard policy to ensure compliance with the requirements. A consultant company hired under the project for technical supervision also reported the environmental and social safeguard implementation at all active worksites and prepared monthly reports (ICR, p.22). The RD took adequate measures to improve the management of health and safety risks following an incident at a project site on April 11, 2020 during the COVID-19 lockdown. These measures included hiring of an operational health and safety (OHS) consultant with international experience, adoption of an OHS policy statement, and OHS trainings to contractors and RD personnel. Such measures improved RD's OHS capacity resulting in mainstreaming OHS into its operations (ICR, p.23). Overall, the project was in compliance with the environmental safeguard policy at project closing.

Involuntary Resettlement (OP/BP 4.12): This safeguard policy was triggered because of the construction of the Gurjaani bypass that required land acquisition and resettlement. Then existing Resettlement Policy Framework for SLRP-II was updated to include SLRP-III. The updated document was re-disclosed in Georgia and on the World Bank's InfoShop in March 2014. The RD held public consultations for the preparation and development of a site-specific Resettlement Action Plan (RAP) for Gurjaani by-pass. The change in the design of the first 2 km of the bypass necessitated an addendum to the RAP, which was prepared with a delay of two years because of deliberations about resettlement would be required or not and the need to ensure the compensation of project-affected households at replacement value (ICR, p.23). This resulted in a delay in project implementation and extension of project closing date by an additional 19 months. At the time of project evaluation, ten resettlement compensations were still pending because of absentee owners and mortgage issues.

b. Fiduciary Compliance

Financial Management

The project benefited from the financial management arrangements set up in the then ongoing World Bank-financed projects. The Transport Reform and Rehabilitation Center (TRRC) was responsible for the financial management of the project. TRRC submitted unaudited interim financial reports regularly, which were acceptable to the World Bank. Financial statements audited by an independent auditor were unqualified and submitted on time. There were no known issues of corruption or misuse of funds associated with the project. All project funds were accounted for at project closing. The project's financial management was compliant with the World Bank's requirements.

Procurement

The departure of the head of the RD's procurement department during the early stages of project implementation adversely affected the procurement process. Procurement capacity of the RD was gradually strengthened through trainings, hiring of procurement consultants and a procurement audit firm. Government's e-procurement platform that was developed under SLRP-II was used to improve transparency and efficiency. Although the project closing date was extended more than three years, some road safety improvement works could only be tendered six months before project closing because of the COVID-10 restrictions. These works could not be contracted and cancelled due to insufficient time for implementation and the impact of the COVID-19 restrictions on international and regional supply chains (ICR, p.21). Overall, procurement was compliant with the requirements of World Bank procurement guidelines and requirements with some shortcomings.

- c. Unintended impacts (Positive or Negative)
 None.
- d. Other None.

| 11. Ratings | | | |
|------------------|--------------|-------------------------|---|
| Ratings | ICR | IEG | Reason for Disagreements/Comment |
| Outcome | Satisfactory | Moderately Satisfactory | Because of shortcomings in the theory of change for Objective 2 and insufficient evidence for its achievement. |
| Bank Performance | Satisfactory | Moderately Satisfactory | Because of moderate shortcomings in project design related to the achievement of Objective 2 and M&E design in capturing the sustainability aspect of Objective 2, and insufficient focus on the development impact of technical assistance activities during implementation. |
| Quality of M&E | Substantial | Modest | Because of significant shortcomings in the M&E system in capturing the achievement of |

| | | outcomes related to the second objective. |
|----------------|-----------------|---|
| Quality of ICR | Substantial | <u>.</u> |
| | | |

12. Lessons

This review has drawn three lessons based on the information in the ICR.

Absence of a well-thought theory of change for technical assistance activities can prevent a proper assessment of the achievement of the expected outcomes; hence, the achievement of project objectives. The project financed technical assistance activities to improve the sustainability of road asset management. The project activities were partially defined. The expected outputs were some training and piloting of a micro-enterprise contract for road maintenance. The expected outcomes from project activities and outputs were not defined. During project implementation, in accordance with the shift towards Output and Performance Results Based Contracts (OPRC) for road maintenance, micro-enterprise model was abandoned. Some activities could not be implemented because of COVID-19 restrictions on travel. Overall, the theory of change was insufficient to fully assess how limited technical assistance activities, i.e., trainings to the municipalities and the preparation of an OPRC in Guria region—a non-project region—would lead to the achievement of the project objective to improve the sustainability of road asset management.

Project-financed activities that do not support the achievement of project objectives can adversely affect project's efficiency. Under the third component, the project financed road safety measures on non-project-rehabilitated roads. The results indicator included an indicator that captured the implementation or non-implementation of these activities. The outcomes from these activities were not properly defined nor did the project objective formulation capture the effect of these activities on road safety measurement. Such activities can weaken the project's efficiency because the socio-economic benefits from their implementation are not included in the economic analysis. A solution would be to make sure that the project formulation captures all the outcomes expected from the implementation of project activities and the achievement of project outputs.

Insufficient risk mitigation measures can lead to sustained delays in project implementation. At appraisal, the risk stemming from potential land acquisition and resettlement because of the Gurjaani bypass construction—the only project activity that could lead to land acquisition—was identified, and it was rated moderate. However, the mitigation measures proved to be insufficient. Because of the change in the design of the first two kilometers of the bypass, the addendum to the Resettlement Action Plan could not be prepared for more than two years. This was partly because of the uncertainty whether an addendum would be needed without deciding on the new design and partly because of the time required to confirm that project-affected people would be fairly compensated at the replacement value of their households. Together with the adverse impacts of COVID-19 pandemics, this led to a project closing date extension by an additional 18 months.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR provides a detailed overview of the project. It is candid and concise and follows the majority of the guidelines. There is a logical linking and integration of various parts of the report making it internally consistent. The report is results-oriented regarding the achievement of Objective 1; it highlights how activities informed outcomes that is linked to the impact of the project's intervention. The interrogation of evidence is sufficient clearly linking the evidence to findings about the project's impact on the improvement of road conditions. However, the analysis of the achievement of Objective 2 had gaps. A clear theory of change is not provided in the ICR that would help the reader understand how the efficacy rating was achieved for Objective 2. The interrogation of evidence is insufficient to support the achievement of Objective 2 (please see Objective 2 in the Efficacy section and the Outcome section). Entries in the "Lessons and Recommendations" are based on specific experiences of the project, but they are mostly in the form of findings rather than lessons or recommendations.

Overall, the quality of the ICR is rated Substantial with moderate shortcomings related to the analysis of the achievement of Objective 2.

a. Quality of ICR Rating Substantial