



PERFORMANCE AUDIT REPORT

STATE AUDIT OFFICE OF GEORGIA



სახელმწიფო აუდიტის სამსახური

„ვაშტიკი“

ეკონომიკური საქმიანობის სფეროს აუდიტის

დეპარტამენტის უფროსი

თორნიკე შერმადინი

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მართვის პროექტის (SRAMP)“

2021 წლის ეფექტიანობის აუდიტის ანგარიში

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ABBREVIATIONS

AADT	Annual Average Daily Traffic
CQS	Consultant's Qualification Selections
CW	Civil Works
DLIs	Disbursement Linked Indicators
ESMF	Environmental and Social Management Framework
GOG	Government of Georgia
GRM	Grievance Redress Mechanism
LEPL ETCIC/TRRC	Legal Entity of Public Law Eurasian Transport Corridor Investment Centre
FPU	Foreign Project Unit
GPS	Global Positioning System
HDM	Highway Development and Management
IBRD	International Bank for Reconstruction and Development
IFI	International Financial Institution
IFR	Interim Financial Report
IPC	Interim Payment Certificate
IRAP	International Road Assessment Program
IRI	International Roughness Index
IPF	Investment Project Financing
ISSAI	International Standards of Supreme Audit Institutions
MRDI	Ministry of Regional Development and Infrastructure of Georgia
NPV	Net Present Value
OPRC	Output and Performance Based Road Contract
PAD	Project Appraisal Document
POM	Project Operations Manual
RAMS	Road Asset Management System
RAP	Resettlement Action Plan
RD	Roads Department of Georgia
SAOG	State Audit Office of Georgia
SLRP-III	Third Secondary and Local Roads Project
SRAMP	Secondary Road Asset Management Project
SLRP-II	Second Secondary and Local Roads Project



COVER LETTER

The State Audit Office of Georgia (SAOG) has conducted an Independent Project Performance Audit (the Audit) of the Secondary Road Asset Management Project (the SRAMP or the Project) funded by the World Bank (the WB) and implemented by the Roads Department of Georgia (the RD). The Audit covered the fifth year of the project from January 1, 2021 to December 31, 2021.

Following the completion of the Audit by the SAOG, the RD will submit the Audit Report to the WB and request the acknowledgement of the loan disbursement in an amount eligible under the SRAMP as of December 31, 2021 and verified by the Audit as per the Audit Terms of Reference.

As a result of the Audit, the SAOG concluded that the achievement of the Disbursement Linked Indicators (DLI's) targeted for 2021 were as follows:

- DLI 1.3 The targets of the Design-Build Sub-program planned for completion in 2019 have been still in progress;
- DLI 1.2 The project - Roads Rehabilitated in Guria Region has not been achieved for the year 2021;
- DLI 2.1 Preparation of fully costed Five Year Rolling Program using the improved methodology has been fully achieved;
- DLI 2.2 Integration of road safety in asset management has been fully achieved;
- DLI 2.3 Introduction of climate resilience practices in the RD's road asset management has not been achieved.

Based on the percentage of DLI target achievements, the Audit recommends to disburse the loan amount of USD 4,620,942 for 2021.



EXECUTIVE SUMMARY

The Government of Georgia (the GOG), represented by the RD, started a results-based Secondary Road Asset Management Project in 2016 which will be completed by June 30, 2023. The Project is financed by the GOG and the WB through a loan (Loan # 8599-GE) of the International Bank for Reconstruction and Development (the IBRD).

The objectives of the SRAMP are: (i) to improve road users' access to social services and markets through the Project Roads in a sustainable manner; and (ii) to enhance road asset management for the Secondary Roads Network in Georgia. Pursuant to the Loan Agreement dated March 28, 2016, the RD shall ensure independent monitoring and evaluation of the project by carrying out an independent performance audit. The WB thus requested the SAOG to conduct the Independent Project Performance Audit for the period of January 1, 2021 to December 31, 2021.

The SAOG Audit Team consisting of the Chief Auditor Nana Vachadze, the Senior Auditor Tengiz Tevdoradze, the Auditor Lizi Tsivadze and the Auditor Malkhaz Kenteladze, examined the Interim Financial Reports (IFRs), the payment orders, the invoices and the signed contracts in order to verify the expenditures incurred by the Project. The Audit Team has also reviewed the procurement processes and further implementation details of the Project roads rehabilitation in Guria region, as well as two Design-Build projects financed by the GOG and the remaining four Design-Build projects financed by the WB. The Audit Team also examined the monthly progress reports from the supervision Consultants, the interim payment certificates, six Design-Build and project road rehabilitation contracts and their compliance with the Project Operational Manual (the POM), as well as the Project Appraisal Document (the PAD).

The Audit Team reviewed the preliminary and the final reports provided by the technical, environmental and social experts to identify progress in rehabilitation and improvement of the secondary road assets through the Design-Build contracts and the Project road rehabilitation contracts in Guria region.

In addition, the Audit Team examined the compensation payments under the RAP's and the road safety integration in the asset management process. The Team also reviewed, the consistence of updated Five-Year Rolling Program, and the 6th year plan with the "Handbook for the preparation of Multi-Year Rolling Plan for the road asset preservation and improvements," the detailed design and bidding documents for the climate resilience measures in Racha, as well as the progress in implementation of the SAOG's previous recommendations.

According to the IFR's, during 2021 year, total expenses incurred amounted to USD 7,201,839. The Audit Team assessed the progress of the Disbursement Linked Indicators (DLI) targets and recommended that the loan amount of USD 4,620,942 in 2021 is disbursed.



The percentage achievements of the DLI targets are presented in the table below:

DLI targets	Achieved DLI results, %
	2021
DLI 1.1 Project roads rehabilitated and periodically maintained under OPRC	N/A*
DLI 1.2 Project roads rehabilitated in Guria Region, 55% of project roads rehabilitated in 2021	- **
DLI 1.3 Targets of the Design-Build Sub-program achieved - (2018-60 km; 2019-40 km)	76.87 ***
DLI 2.1 Preparation of fully-costed Five-Year Rolling Program using the improved methodology	100
DLI 2.2 Integration of road safety in asset management (200 km for 2021 year)	100
DLI 2.3 Introduction of climate resilience practices in RD's road asset management, detailed design and bidding documents for climate resilience measures in Racha completed	-

* According to the amendment to the loan agreement DLI 1.1. does not envisage any activities from 4th to 6th years of the project;

** The result is calculated based on the actual roads rehabilitated ;

*** The result is calculated based on the actual roads rehabilitated. As of December 31, 2021, cumulatively (Yr.2, Yr.3, Yr.4 and Yr.5), 91.45% of roads were rehabilitated.

As a result of the previous Audit, the SAOG identified one area for improvement and issued a recommendation. The status of its implementation is as follows:

AUDIT FINDING 1 (2017)

Useful life of roads depends on several circumstances, including: type of works done, traffic intensity, and regional climate. The SAOG established that the assessment of expected useful life of the secondary roads is not being performed by the RD during the annual planning process. As a result, the RD does not have an opportunity to justify the best identified option between the maintenance, the periodic maintenance and the rehabilitation.

RECOMMENDATION 1 FOR THE AUDIT FINDING 1 (2017)

In order to increase the effectiveness of the secondary road asset management, the RD should design and implement mechanisms which will allow the estimation of a road's useful life based on the type of work. The estimation can be based on the past experiences, the types of work, the AADT and the regional climate. The expected outcomes need to be compared with each other and the most effective and efficient type of work should be selected.

MANAGEMENT RESPONSE ON AUDIT FINDING 1 (2017)

According to the Georgian legislation, there are no national technical regulations and standards on construction of roads, bridges, highways and road tunnels. In 2021, the Committee for the Sectoral Economy and the Economic Policy conducted a thematic study for identifying the problems related to the introduction of uniform standards in construction sector. The RD requested the mentioned information from the Committee and expressed its readiness to participate in development and implementation of construction standards.

RECOMMENDATION IMPLEMENTATION STATUS 1 (2017)

The RD, together with other government entities is responsible for implementation of national uniform construction standards. The RD applied to the relevant agencies for participating in the mentioned processes within its competences. The SAOG can verify that the recommendation issued by the previous Audit Team for the period of July 6, 2016 to December 31, 2017, has been implemented.



INTRODUCTION

The GoG represented by the RD, has started a results-based Secondary Road Asset Management Project in 2016 to be completed before June 30, 2023,¹ funded through a loan (Loan # 8599-GE) of the IBRD. The project development objectives are: (i) to improve road users' access to social services and markets through the project roads in a sustainable manner, and (ii) to enhance road asset management for the secondary roads network in Georgia.

The primary project beneficiaries will include road users and communities living along the secondary roads presupposed by the Project. The Project area covers four regions, namely Mtskheta-Mtianeti, Racha-Lechkhumi, Shida Kartli and Guria. The road users are expected to benefit from improved conditions of the Project roads through reduced travel time and vehicle operating costs, as well as an improved road safety. The Project is also expected to offer long-term direct employment opportunities in low-skilled routine maintenance activities in Guria region, and short-term opportunities in rehabilitation activities in Racha-Lechkhumi, Mtskheta-Mtianeti and Shida Kartli regions. From medium to long term, communities will also benefit from more reliable access to socio-economic centers which offer employment opportunities outside agriculture and social services to enhance health and education.

The secondary group of the project beneficiaries will include the RD and the local construction industry. Through technical assistance, the RD will further enhance its capacity in the secondary road assets planning, budgeting, execution and monitoring. The project is expected to increase the capacity of the local construction industry in management and implementation of contracts with an increased range of risks moved to the private sector and prepare the industry for longer-term public-private partnerships, including the Output and Performance Based Road Contract (the OPRC).

The SRAMP consists of two components with agreed total cost of US\$48 million. The IBRD Loan of US\$40 million will finance up to 100% of US\$39.9 million of eligible expenditures (in addition to US\$100,000 of the front-end fees). The Borrower confirmed that it will provide from its own resources the remaining US\$8 million of the total Project cost as counterpart financing. The Project has been designed to utilize an Investment Project Financing (IPF) results-based disbursement model, with expenditures recognized both as eligible expenditures and reported through IFRs, and the confirmation of results achieved against the DLI targets for both components described below:

Component 1: Secondary Road Assets Improvement and Preservation (with estimated cost USD 46.40 million; IBRD financing: USD 38.66 million). The objective of this component is two-fold: (i) to support the improvement and preservation of secondary roads assets, and (ii) to improve access of Georgians to social services and economic activities in less connected and poor regions through rehabilitation and Design-Build contracts. This is a DLI-based component, and its financing is linked to the achievement of agreed Disbursement Linked Indicators (presented in Appendix A).

Component 2: Enhanced Secondary Road Assets Planning and Management (estimated cost USD 1.5 million; IBRD financing: USD 1.25 million). The objective of this component is to support institutional reforms aimed at integrating innovative management practices in RD's overall road assets

¹ Amendment N1 to the loan agreement , 30July, 2021.



management and enhancing the RD's capacity in a multi-year programming and annual planning for the secondary road assets on a country level, and not on a project level. It is a DLI-based component and its financing will be linked to the achievement of the agreed DLIs. This component has been built on a number of activities which has been implemented under the WB -funded projects and involve (i) the development of the Road Asset Management System (RAMS) under the second Secondary and Local Roads Project (SLRP-II), (ii) the improvement of the RD's methodology, and the preparation of a five-year rolling program and annual plans for the secondary road assets, and (iii) the piloting of the International Road Assessment Program (IRAP) under SLRP-III.

Pursuant to the Loan Agreement dated March 28, 2016, the RD shall ensure independent monitoring and evaluation of the project through an independent performance audit.



OBJECTIVES, SCOPE AND METHODOLOGY OF AN INDEPENDENT AUDIT

The objective of the independent performance audit covering the period of January 1, 2021 to December 31, 2021 was limited to four main sub-objectives:

(i) Verification of eligible expenditures under the Project. The objective of this task was to confirm that the expenditures under the Project were eligible for reimbursement and were incurred in compliance with the procurement arrangements provided in the Loan Agreement dated March 28, 2016 between Georgia and the IBRD.

Another objective of this task envisaged verification of compensation according to the Resettlement Action Plans (RAPs), if any.

(ii) Verification of progress in the Project activities.

The objective of this task was to verify the RD's progress in the delivery of Project activities during the Year 5 from January 1, 2021 to December 31, 2021. This also included activities which were scheduled during the Year 3 ending December 31, 2019 but carried over into the Year 5. The task included:

- (a) Review of progress in Sub-component 1.1: Rehabilitation of Selected Secondary Road sections in Guria;
- (b) Review of progress in Sub-component 1.2: Rehabilitation and Improvement of Secondary Roads Assets through Design-Build Contracts;

(iii) Verification of progress and levels of achievement against the DLIs as of December 31, 2021.

The objective of this task was to determine the extent to which the DLIs were met and to assess the loan amount that was eligible for conversion into the disbursement. The Disbursement Linked Indicators (DLIs) relevant as of December 31, 2021 were determined as follows:

- DLI 2.1 Preparation of fully-costed Five-Year Rolling Program using the improved methodology;
- DLI 2.2 Integration of road safety in asset management;
- DLI 2.3 Introduction of climate resilience practices in the RD's road asset management;
- DLI 1.2 Project roads rehabilitated in Guria region;
- DLI 1.3 Targets of the Design-Build Sub-program achieved.

(iv) Verification of implementation of SAOG's recommendations.

The objective of the task was to verify whether the RD has made any progress in implementation of recommendations made by the SAOG in the previous PA report covering the SRAMP activities for the period of July 6, 2016-December 31, 2017.

The Audit was conducted in accordance with the SAOG's Performance Audit Methodology compliant with the International Standards for Supreme Audit Institutions (ISSAIs). The Audit employed three methods of analysis which included document analysis, data analysis and semi-structured interviews with the staff of the RD and the technical and environmental experts.



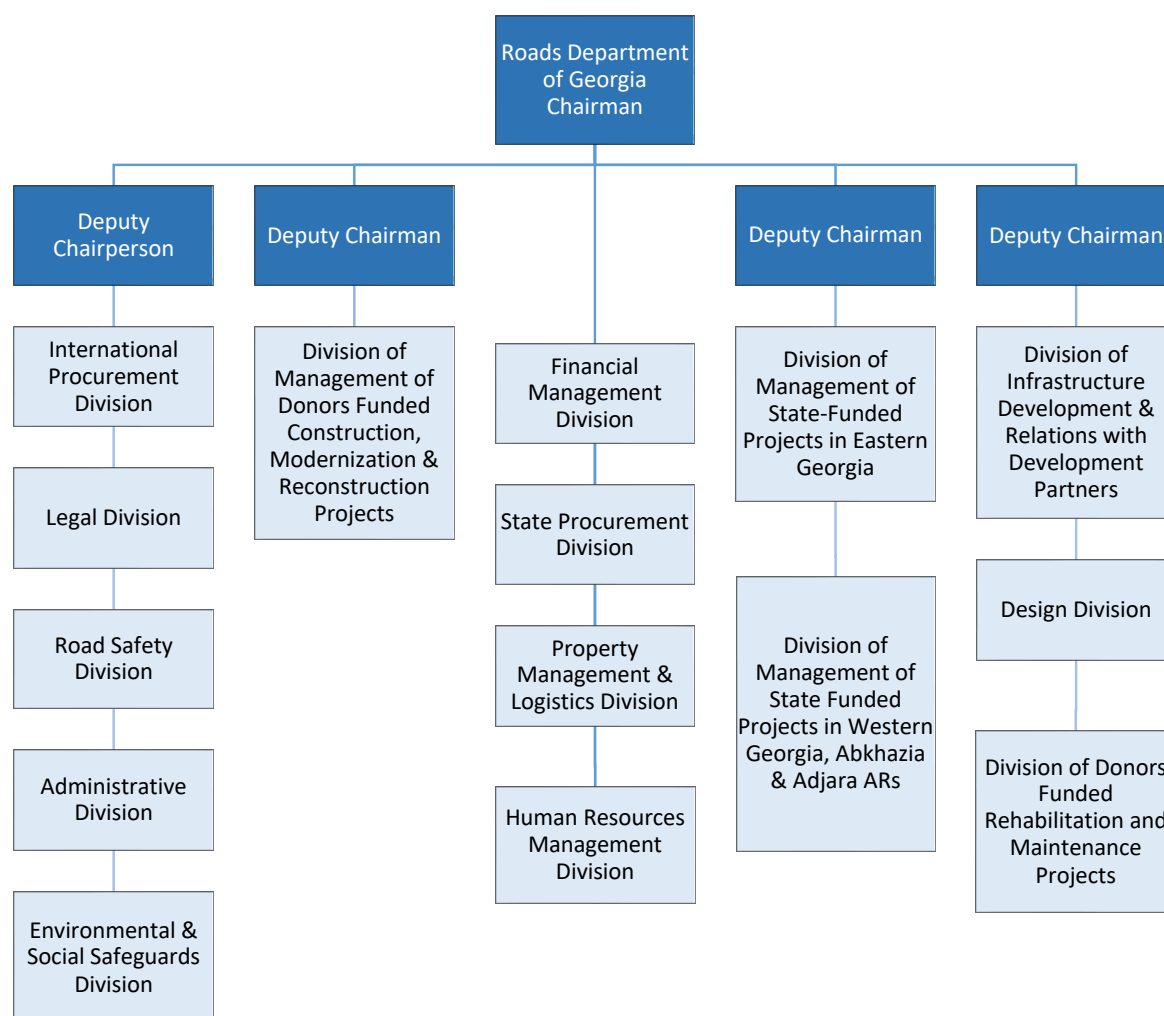
REVIEW OF PROJECT'S OPERATIONAL PROCESS

The RD is responsible for improvement and administration of the road infrastructure in Georgia. Subordinated to the Ministry of Regional Development and Infrastructure of Georgia (MRDI), it is financed from the state budget.

The RD has also taken responsibility for overall management and implementation of the SRAMP. Several of the RD's Deputy Chairmen are rendered with the Project management functions. They are supported by the Foreign Project Unit (FPU), responsible for procurement, monitoring and evaluation, and by the LEPL Eurasian Transport Corridor Investment Center (ETCIC/TRRC), responsible for financial management including flow of funds, accounting and financial reporting. Other RD units are also involved in planning, road safety, and management of safeguards. Organizational arrangements for the RD are shown in Figure 1.

The ETCIC/TRRC cooperates with the Treasury Service of the Ministry of Finance of Georgia for administration of the Project's Designated Account.

Figure 1. Organizational structure



VERIFICATION OF EXPENDITURES

The ETCIC/TRRC is responsible for preparation and submission of financial reports. Expenditures are reported in the IFRs' for each calendar quarter and comprise of the following statements:

- Summary of project sources & uses of funds;
- Summary of uses of funds by project components;
- Balance Sheet;
- Designated Account Statement;
- Statement of Expenditure, withdrawal schedule;
- Project cash forecasts;
- Summary of eligible financing project expenditures according to the DLI Audit.

During the audit period, 4 IFRs were prepared and presented to the WB. According to the ETCIC/TRRC's financial management manual for the SRAMP, the expenditures in financial reports are recognized on cash basis, which is in line with the WB requirements.

The Audit Team reviewed all the IFRs covering the period from January 1, 2021 to December 31, 2021. The Team also examined the expenditure invoices, the payment orders, the signed contracts, and the procurement plan. The Audit verified the eligibility of expenditure incurred during the reporting period. Table 1 summarizes the details of incurred expenditure (extract from the IFRs is presented in Appendix B):

Table 1 – Details of expenditures

Recipient	Contract #	Amount USD 2021 year	Source
TNM Limited	SRAMP/CS/QCBS-01	140 770	IBRD
JV Road Rehabilitation and Modernization Supervision Direction LTD / Nievelt Ingenieur GmbH / Centralna Punta laboratorija Doo LTD	SRAMP/CS/QCBS-02	364 685	IBRD
AGT Management, Consulting and Construction LTD	SRAMP/CW/NCB-01	(119 112)	IBRD
Sakmilsadenmsheni LTD	SRAMP/CW/NCB-03 LOT 2	74 978	IBRD
AGT Management, Consulting and Construction LTD	SRAMP/CW/NCB-05	65 053	IBRD
RTD LTD	SRAMP /CW/NCB-09	709 650	IBRD
China Road and Bridge Corporation	SRAMP /CW/NCB-10	1 098 537	IBRD
China Road and Bridge Corporation	SRAMP /CW/NCB-11	3 359 831	IBRD
China Road and Bridge Corporation	SRAMP /CW/NCB-12	1 583 446	IBRD
Consulting Expenses	Consultant Services	14 429	GOG
Sum		7 216 268	



RESETTLEMENT ACTION PLANS (RAPs')

The Environmental and Social Division of the RD manages the environmental and social issues for all projects funded by various international financial institutions (the IFIs). The Division is responsible for preparation of environmental and social documents, including resettlement, land acquisition documentation, as well as implementation monitoring. The Division also maintains an electronic log for environmental and social grievances where it records the data including the name of the complainant, the content of the grievance and the followed procedures.

KHIDISTAVI-ATENI-BOSHURI

The SRAMP envisages Khidistavi-Ateni-Boshuri Road Section (12.4 km - 22.5 km) rehabilitation. Widening of the specific section of the road required preparation of the resettlement action plan for the surrounding villages. The resettlement action plan was prepared in July 2018 and agreed with the WB on September 14, 2018. The plan included partial acquisition of 40 land plots.

During the implementation of the resettlement action plan, the cadastral measurement units on the map were inaccurately registered at the Public Registry and the landowners in coordination with the Roads Department had to re-register the units.

Overall, 8 and 5 land plots were acquired in 2018 and 2019, respectively. The paid compensation amounted to GEL 16,004 as of December 31, 2018 and GEL 21,532² as of December 31, 2019. The Audit Team reviewed all underlying documents related to the compensation payments. According to the Public Registry, the ownership titles of 13 land plots were duly transferred to the RD. All compensation payments were paid out from the state budget. Government also took ownership of 6 land plots, without paying any compensation as individuals were not able to register mentioned lands legally. There was no necessity to take any action for the remaining 21 land plots (land plots were under minimization).

Overall, 3 complaints were submitted to the RD, which were fully resolved through negotiations with the complainants. No other activities were identified in 2021.

TIANETI-AKHMETA-KVARELI-NINIGORI

The SRAMP envisages Tianeti-Akhmeta-Kvareli-Ninigori Road Section (1 km - 30 km) rehabilitation. Widening of a specific section of the road required preparation of the resettlement action plan for the surrounding villages.

The project covered 132 land plots, where 115 land plots were in government ownership. Consequently, the resettlement action plan was prepared for 17 land plots and agreed with the WB on May 21, 2019. Table below shows information on 17 land plots included in the resettlement plan:

² Includes additional allowance to the household who lost 10% or more of their income generating land as a result of project-related land acquisition .



Table 2 – Details of land plots

Number of land plots	Description
5 land plots	3 are under registration process in Public Registry, 2 are already registered by individuals.
5 land plots	Are under negotiation with the RD and the Contractor.
4 land plots	Were acquired at GEL 11,501 in 2019.
2 land plots	Individuals were not able to register in Public Registry and they received GEL 5,050 compensation only for perennial plants.
1 land plots	After being accurately registered, as the land plot cadastral measurements were beyond the required territory, no procedures were required from the RD.

The Audit Team reviewed all underlying documents related to the compensation payments. According to the Public Registry information, the ownership titles of 4 acquired land plots were duly transferred to the RD. All compensation payments were paid from the state budget.

During 2020, 261.7 GEL was paid for the land acquisition based on the agreement signed in 2019. No other activities were identified regarding the RAP related to Tianeti-Akhmeta-Kvareli-Ninigori road in 2021.

(i) VERIFICATION OF PROGRESS IN PROJECT ACTIVITIES

A. ENVIRONMENTAL AND SOCIAL SAFEGUARD EXPERT RELATED ISSUES

The Sub-objective (ii) required involvement of an environmental expert, to be contracted by the RD in 2022. The RD published Procurement Notice of Expert Services for Preparation of Audit Report on its official website on January 17, 2022. For requirements please refer to Appendix H.

Only one expert expressed interest. The agreement between the RD and the environmental and social expert was signed on February 11, 2022. According to the agreement, the expert was required to prepare the final report no later than 30 days after the start of the assignment.

As per Terms of Reference (TOR), the tasks included:

- Reviewing of 6 Design-Build and 7 rehabilitation contracts listed in Table-4,6,7 and ascertaining whether the Environmental and Social Management Plans of the employer (RD) were included in the contract documents;
- Reviewing of monthly reports (starting from January 2021 and ending December 2021) of the supervision Consultant to the RD to ascertain actual reporting on the environmental and social performance of work providers;
- Undertaking walk-through field trips to the construction sites under the civil works contracts which have been active at any time between January 1, and December 31, 2021 and reporting, if encountered, based on visual observation:
 - (i) Disorganized dumping of construction material and waste in and around construction sites;
 - (ii) Damage to nearby vegetation and infrastructure (irrigation canals, power transmission lines, local roads, etc.) that may have been caused by road works;
 - (iii) Active erosion/failure of cut slopes;

- (iv) Absence or significant damage to the road safety signage and furniture (guard rails, warning and limiting road signs, etc.);
- (v) Houses/structures along the work sites unsafe to access and/or containing visible damages that may have been caused by the road works;
- (vi) Evident violation of work-site safety rules (workers not wearing reflective vests, adequate shoes and helmets and other personal protective gear as required for the activities being performed);
- Provide confirmation that the grievance redress log related to the environmental and social cases has been maintained;
- Provide verification that the grievance redress mechanism exists and functions for the civil works contracts. Provide verification that the certain grievance focal points are appointed, public disclosure is ensured and the grievance focal points are available to the local population. In addition, provide verification that the grievance log is maintained by the Contractors and/or the Supervisor, as well as the RD. Verify that the grievance log provides reasonable evidence that the grievances have been or are in the process of being resolved and the pending grievances have been assigned certain action steps which the RD intends to take;
- Check the status of implementation of priority climate resilience measures in Racha;
- Provide recommendations for improvement in any areas where discrepancies, issues of concern or non-compliances have been identified and documented in the findings of this Audit.

The environmental expert submitted the following findings in its final report in March 2022:

SUPERVISOR MONTHLY REPORTS

Monthly reports prepared by the Supervisor company are detailed and thoroughly describe the results of the environmental and social monitoring activities carried out during the reporting period.

DESIGN-BUILD CONTRACTS:

Below are several examples of environmental and social non-compliances which were identified in the Supervisor monthly reports. Non-compliances listed below are related to all or some road sections:

- There were no enough bins for waste;
- In many cases workers were not using special clothes and related equipment;
- Construction and heavy equipment worked without flags;
- Containers for hazardous waste were not placed in a covered area;
- Insufficient safety signs were present on the construction site;
- Holes were bounded with tape instead of solid barrier;
- In one instance, the Contractor did not provide information about the safety specialist.

REHABILITATION WORKS IN GURIA REGION:

Below are several examples of the environmental and social non-compliances which were identified in the Supervisor's monthly reports. Non-compliances listed below are related to all or some road sections:



- In many cases, the workers were not using special clothing and related equipment;
- Insufficient safety signs, especially on the construction sites, where present at the foundation and artificial structure working sites;
- Noise, vibration and ambient air quality was not monitored accordingly;
- The Contractor had not submitted the waste management plan and had not arranged the domestic and hazardous waste areas;
- In many areas, the safety ribbons and barriers were not installed;
- The Contractor did not obtain permissions for arrangement of the construction waste storage for all areas;
- Large amount of waste was scattered along the project road.

SITE INSPECTION RESULTS

The field monitoring included the examination of project areas, visual inspection of the construction sites, the materials and inert waste dump sites, the surrounding vegetation and the infrastructure of related areas.

The following non-compliances were identified on the project sites:

- The Contractor had not submitted the waste management plan and had not arranged the domestic and hazardous waste areas;
- A large amount of waste was accumulated along the project road, including the polyethylene and wood packaging materials;
- Monitoring of noise, vibration and ambient air quality was not carried out;
- Hazardous waste containers were not placed on the project sites;
- The employees were not fully equipped with the PPEs;
- In some places, the safety signs were insufficient;
- In some places, the private fences were damaged by the Contractor;
- In many areas the safety ribbons and the barriers were not installed;
- There were insufficient number of safety signs, especially on the construction sites where the foundation arrangement and artificial structure works took place;
- In many cases, the Contractor had not agreed the construction waste and milled asphalt storage areas with the local municipality.

REVIEW OF THE GRIEVANCE REDRESS MECHANISM

The Grievance redress mechanism (GRM) was developed and maintained for all contracts under the Project.

CHECKING THE STATUS OF IMPLEMENTATION OF THE PRIORITY CLIMATE RESILIENCE MEASURES IN RACHa

Meetings with local population and other stakeholders were held on 26 August 2020 in Ambrolauri and Oni municipalities in order to finalize the documents and to improve the Environmental and Social Impact Management Plans prepared for these Sub-projects.



Based on the public hearing protocol prepared by the RD, the affected local population was informed about the planned project, the deadlines and the possible impacts of the project on Racha region. The locals and the stakeholders did not make any remarks regarding the project.

RECOMMENDATIONS ISSUED BY THE ENVIRONMENTAL AND SOCIAL SAFEGUARD EXPERT FOR 2021

- The Contractor companies must submit the necessary permits, licenses and consents before starting the works;
- Contractors are obliged to ensure the implementation of the measures described in the ESMP;
- Hazardous and non-hazardous waste management must be carried out in compliance with the current legislation, norms and rules;
- Before the end of the working day, the construction site should be cleaned;
- The waste should be collected separately in the specially arranged areas and then removed by the relevant service companies;
- The ditches should not be left open;
- The employees should be provided with the PPEs;
- The construction sites should be equipped with special warning signs;
- Before commencing and during implementation of the construction activities, the companies are recommended to be guided by the ARAP, in particular:
- The Contractor should record the initial conditions of the privately owned and/or state-owned land plots before impacting on them;
- The Contractor should monitor the inventory, register the affected property and conclude the relevant agreement with the owners according to these documents.;
- During the restoration, the Contractor should follow the terms of the agreement and restore the property to the pre-construction condition.

B. TECHNICAL EXPERT RELATED ISSUES

The Sub-objective (ii) of the project also required the involvement of the technical expert to be contracted by the RD. The RD published the Procurement Notice of Expert Services for Preparation of Audit Report on its official website on January 17, 2022. For requirements please refer to the Appendix H.

Only one expert expressed interest. The agreement between the RD and the technical expert was signed on February 11, 2022. According to the agreement, the expert was required to prepare the final report no later than 30 days after the start of the assignment.

According to the TOR, the scope of the assignment included:

1. Review of the progress in rehabilitation and improvement of the secondary road assets through the Design-Build contracts:

- Review of the approved designs of ongoing Design-Build contracts listed in Table-7, the Interim Payment Certificates (IPCs), and other relevant documents or information from the Contractors, Supervision Consultant and/or the RD related to these Design-Build contracts, and (ii)



confirmation of the availability of these reports/documents and (iii) inclusion of all information required as per the Consultant's contract conditions/TORs;

- Review of the design approval processes during the design preparation stage and the quality management processes applied by the Contractor and the Supervision Consultant during the rehabilitation work stage;
- Verification of progress of the Design-Build contracts as per approved work programs, the Supervisor's progress reports, and the approved IPCs;
- Review of the Design-Build contracts and confirmation that they were executed in accordance with the approved designs, approved work program, and contract conditions by conducting visual inspection of the works completed on randomly selected (sampled) project road sections between January 1 - December 31, 2021; identification of any unusual, abnormal damages; identification of inconsistencies in completed works with the approved design, contract conditions, work program or the IPCs. Provision of detailed digital photographs of those findings together with the GPS coordinates and narrative description of identified issues in the technical findings report of this Audit;
- Review of 12 monthly reports (starting January 2021 and end December 2021) of the supervision Consultant to the RD to ascertain actual reporting on performance of work providers and their adherence to the Traffic Management Plans (TMPs);
- Recommendations for improvement in any areas where discrepancies, issues of concern, or non-conformances have been identified and documented in the technical findings of this Audit.

2. Review of progress in rehabilitation of road sections in Guria region:

- Verification of progress of seven contracts as per approved work programs, the Supervisor's progress reports and the approved IPCs;
- Review of seven civil works contracts and confirmation that they were executed in accordance with the approved designs, approved work program, and contract conditions by conducting visual inspection of the works completed on the randomly selected (sampled) project road sections between January 1 - December 31, 2021; the identification of any unusual, abnormal damages or inconsistencies in the completed works with the approved design, the contract conditions, the work program or the IPCs. Provision of detailed digital photographs of those findings together with the GPS coordinates and the narrative description of the identified issues in the technical findings report of this Audit;
- Review of monthly reports (starting January 2021 and end December 2021) of the supervision Consultant to the RD to ascertain actual reporting on performance of work providers and their adherence to the Traffic Management Plans (TMPs);
- Recommendations for improvement in any areas where discrepancies, issues of concern, or non-compliances have been identified and documented in the technical findings of this Audit.

3. Review of the climate resilience practices in the RD's road asset management:

- Checking status of implementation of the priority climate resilient measures in Racha.

Based on the final report, submitted by the technical expert in March 2022, following results were presented:



1. REVIEW OF THE PROGRESS IN REHABILITATION AND IMPROVEMENT OF THE SECONDARY ROAD ASSETS THROUGH THE DESIGN-BUILD CONTRACTS

DLI 1.3 Envisaged the construction of 6 road sections (Table-7).

SUPERVISOR MONTHLY REPORTS

Based on the analysis of the Supervisor's monthly reports and site inspection, the technical expert concluded that the project manager monitors the construction works. The shortcomings identified on the construction site are mentioned in the monthly reports, but the data on the details of executed works and the geodesy of confirmed works are not submitted in the monthly reports.

The technical expert identified the following shortcomings related to the SRAMP/CW/NCB-09: ZHINVALI-BARISAKHO-SHATILI (km16 – km25.5) road section:

- The quantities of the slope protection nets were updated but the Supervisor did not submit additional details in the monthly reports;
- The asphalt surface of the specific road section required repairing, but the Supervisor did not submit the additional details in the monthly reports;

The following shortcomings described by the Supervisor in the monthly reports were mainly related to the 4 on-going Design-Built contracts :

- The Contractors were not following safety norms and standards;
- The Contractors were not submitting updated working schedule on time;
- The performance of the Contractors was slow.

Other discrepancies identified by the Supervisor were:

SRAMP/CW/NCB-05: KHIDISTAVI-ATENI-BOSHURI (km 12.4 - km 22.5)

- The Contractor did not adhere to the maintenance activities of the road design and the rock falls from the slopes. As a result, the water channels were filled with soil and caused water flow on the surface;

SRAMP/CW/NCB-10: ZHINVALI-BARISAKHO-SHATILI (km25.5 - km32)

- The deficiencies related to the slope works were identified;
- Constructed RC pipes were of low quality.

RESULTS OF SITE INSPECTIONS

The deficiencies identified on the construction sites are described below:



SRAMP/CW/NCB-09: JINVALI-BARISAKHO-SHATILI (km16 – km25.5)- Based on the site inspection, the technical expert identified the following discrepancies::

- Part of works were of low quality;
- Certain segregated sections of reinforced concrete (RC) channels affected the pipe water flow and were caused by low quality RC pipe joints. ;
- On certain road sections, the geometric features were insignificantly different from the design drawings.

The following significant defect was identified during the site inspection on the SRAMP/CW/NCB-09: JINVALI-BARISAKHO-SHATILI (km25.5 - km32) section::

- Location-PK 86+86- water did not flow from the inlet structure through the whole pipe.

Despite the above discrepancies, the technical expert concluded that driving on the mentioned road section is safe and the road is in compliance with the design documentation requirements;

SRAMP/CW/NCB-10: JINVALI-BARISAKHO-SHATILI (km25.5 - km32)- Based on the site inspection, the technical expert identified the following discrepancies:

- Quality of works on certain road section was poor, the sidewalk width was not in compliance with the construction standards and norms of Georgia;
- The dimensions of retaining structure insignificantly exceeded the data indicated in the design documentation;
- The damaged asphalt surface was identified;
- The geometric data of asphalt surface was not in compliance with the design documentation;
- The pipe slope insignificantly exceeded the design requirements;
- The cracked outlet wing wall was identified;
- The wall thickness was not in compliance with the design requirements;

The significant defects were identified during the site inspection of the SRAMP/CW/NCB-10: JINVALI-BARISAKHO-SHATILI (km25.5 - km32):

- Location –PK 104+80- the sidewalk asphalt surface contained too many voids;
- Location –PK12+534 – the asphalt joint section was constructed with low quality;
- Location –PK 12+534, PK-162 +00-PK164+00- the guardrails were constructed with low quality;
- Location-PK 15+200; PK 15+220; PK 15+240- the cross section slope was not in compliance with the drawings;
- Location-PK 14+563-the geometrical features of the outlet structure were not in compliance with the drawings;
- Inappropriate treatment of joints caused longitudinal and traverse cracks visible on the project road section and on additional 1.26 km section.

The significant defect was identified during the site inspection SRAMP/CW/NCB-05: Khidistavi-Ateni-Boshuri road (Km 12.4 - Km 22.5):

- Location PK1+320-PK1 +285- the retaining wall rebar did not have a concrete protection layer.



2. REVIEW OF THE PROGRESS IN REHABILITATION OF THE ROAD SECTIONS IN GURIA REGION

DLI 1.2 Envisages the construction of 7 road sections in Guria region (Table-4 and 6).

REVIEW OF DESIGN DOCUMENTATION

There were no critical errors identified in design documentation, except of some discrepancies in the guardrail bill of quantities. The results of the field surveys are fully documented and comply with all design documentation requirements.

Following defects were identified on the road section-SRAMP/CW/NCB-12-Lot 1 Rehabilitation works of Chokhatauri-Zomleti Road (Sh-83) km 3.5- km 13.8.

- The design guardrail quantity table, on pk5+145 – pk6+300 on the left side of the road envisaged construction of a guardrail;
- According to the table sequence, the arrangement work load (1,000m), should be pk6+145 instead of pk5+145;
- If the barriers were arranged on the opposite side, the difference of one km would be reduced to 205 meters;
- The road plan and the cross-sections contained no safety barriers, making it difficult to assess the situation;
- Since the embankment height did not reach the height limit (3 meter), the portion of the road did not require the safety barrier.

SUPERVISOR MONTHLY REPORTS

Based on the analysis of the Supervisor's monthly reports and the site inspection, the technical expert concluded that the project manager included only general project information in his monthly reports while the details about the executed works were not submitted.

The Supervisor identified the following shortcomings:

- The Contractor did not maintain work activity log sheet;
- The qualified engineer was not present at the construction site;
- Due to design changes, the Contractor suspended the construction works on NCB-12 Lot-3 Ozurgeti-Natanebi-Ureki (Bypass 46) road section km 0.0 – km 2.8 road section, however the Supervisor did not consider the design changes as a significant impediment to road construction;
- The construction works were of lower quality than those envisaged in the scheduled work program;
- The Contractor's monthly report contained shortcomings and errors;



RESULTS OF THE SITE INSPECTIONS

Following discrepancies were identified during the site inspection:

SRAMP/CW/NCB-11 LOT 1: Sajavakho-Chokhatauri-Ozurgeti-Kobuleti Road (SH02) Km 35 -Km 43.6 Section:

- The RC pipe sections were not matching and the pipe joints were not filled with cement mortar as defined by the design drawings;
- The water bed at the outlet structure was not completed and water could not flow from the outlet structure;
- The pipe slope was insignificantly less than shown on the design drawings;

The technical expert concluded that the executed works were mainly in compliance with the construction standards and norms. According to the project manager's instructions, the defects identified in the report are subject to corrections during further construction works.

SRAMP/CW/NCB-11 LOT 3: Chokhatauri-Bakhmaro Road (SH81) Km 22.5 - Km 24.5 Section:

- One segment of the retaining wall did not comply with the design drawings;
- Location- PK 0+268 - PK 0+291- The segregation signs were noticed on the RC retaining wall surface structure and the rebars did not have a concrete protection layer- significant discrepancy;

SRAMP/CW/NCB-11 LOT 3 Chokhatauri-Bakhmaro Road (SH81) Km 15.9 - Km 21.4 Section- significant discrepancy:

- Location- PK 0+484 - PK 0+492- The segregation signs were noticed on the RC retaining wall surface structure and the rebars did not have a concrete protection layer;

SRAMP/CW/NCB-12 LOT 1: Chokhatauri-Zomleti Road (SH83) Km 3.5 - Km 13.8 Section:

- One gabion box was not completely filled with stones;
- Damaged gabion boxes were identified in the middle of the gabion wall, caused by improperly stretched wire appliances. In order to avoid more deformation of the gabion boxes, the Contractor must add and adjust the existing wires.

SRAMP/CW/NCB-12 LOT 2: Sajavakho-Chokhatauri-Ozurgeti-Kobuleti Road (Sh-02) section km 17- km 19.5.

- Several cross sections were identified where slope rate did not match the design drawings and the existing and designed slope alignments were on the same side of the road. The technical expert considered above as a tolerable error.



SRAMP/CW/NCB-11-Lot 2: Rehabilitation of Sajavkho-Chokhatauri-Ozurgeti-Kobuleti Road (Sh-02) km 54.0-km 67.7

- Inappropriately installed pipe sections;
- Damaged road sections and longitudinal joints were of low quality;
- Inappropriately installed pipe sections were caused by improperly installed RC concrete bedding;

SRAMP/CW/NCB-11-Lot 2: Rehabilitation of Sajavkho-Chokhatauri- Ozurgeti-Kobuleti Road (Sh-02) km 54.0-km 67.7-following significant discrepancies were identified:

- Numerous defects were identified on a given road section. In order to repair these road defects, dismantling of works and reinstallation of structures and road pavements is required;
- Location – PK 0+000 - PK 0+150 PK 0+489 - PK 0+588 PK 2+700 - PK 3+800-the cracks on identified asphalt surface can be caused by arrangement of unstable road foundation and improper pavement works;
- Location-PK 0+538 PK 1+168 PK 1+656- the RC pipes were not matching each other and water leak between the pipe joints imposed a road foundation damage risk;
- Location-PK 1+200- the cross section slopes did not comply with the design requirements;

3. REVIEW OF THE CLIMATE RESILIENCE PRACTICES IN the RD'S ROAD ASSET MANAGEMENT:

Climate resilience covers developing detailed practical solutions for climate risks to the secondary roads in Racha.

The provisions set in the TOR are included in detailed design documentation. The designs for each section are based on hydrological, geological, topographic researches and include: approximate quantities, typical drawings (cross sections, channels, chutes and road safety), engineering calculations and various types of retaining structures.

During the reporting period the construction works (according to the mentioned design documentation requirements) were not yet underway.

RECOMMENDATIONS ISSUED BY THE TECHNICAL EXPERT FOR 2021:

- Design documentation should include drawings of exact safety barrier locations. Design company should repeatedly study mentioned portions and submit the updated documentation;
- In order to improve the identification process of executed works within a certain time frame, the Supervisor should submit the bill of quantities of executed works with exact locations together with the payment certificates included in the monthly reports;

SRAMP/CW/NCB-10: JINVALI-BARISAKHO-SHATILI (km25.5 - km32):

- Location –PK 104+80- in order to avoid water flow through the asphalt surface due to the voids identified in the sidewalk, the existing sidewalks should be dismantled and a new layer of asphalt should be paved;



- Location –PK12+534 – the asphalt joints should be cleared and the damaged joints should be covered with hot bitumen or other similar material;
- Location –PK 12+534, PK-162 +00-PK164+00 - the guardrails should be reinstalled and some parts should be replaced.
- Location-PK 15+200; PK 15+220; PK 15+240- the cross section slope should be rectified and additional layer of asphalt should be paved;
- Location-PK 14+563- the outlet structure should be dismantled and reconstructed;
- In order to avoid the asphalt layer separation caused by the water flow between the asphalt joints, the joints should be covered with hot bitumen.

SRAMP/CW/NCB-09: JINVALI-BARISAKHO-SHATILI (km16 – km25.5)

- Location-PK 86+86-the pipe joint should be filled with cement mortar.

SRAMP/CW/NCB-05: Khidistavi-Ateni-Boshuri road (Km 12.4 - Km 22.5):

- Location PK1+320-PK1 +285- the extra protective layer should be arranged with specialized mortar;

SRAMP/CW/NCB-11-Lot 2: Rehabilitation of Sajavkho-Chokhatauri-Ozurgeti-Kobuleti Road (Sh-02) km 54.0-km 67.7

- Location – PK 0+000 - PK 0+150 PK 0+489 - PK 0+588 PK 2+700 - PK 3+800- the deficient sections should be measured and dismantled using cold milling method. The road foundation can be repaired if necessary and a new asphalt/ concrete layer can be constructed;
- Location-PK 0+538 PK 1+168 PK 1+656- the damaged RC pipes should be dismantled. The project manager must pay particular attention to the concrete bedding works in order to ensure installation of pipes according to the design requirements;
- Location-PK 1+200- the cross section slope should be rectified and an additional layer of asphalt should be paved.

SRAMP/CW/NCB-11 LOT 3: Chokhatauri-Bakhmaro Road (SH81) Km 22.5 - Km 24.5 Section:

- Location- PK 0+268 - PK 0+291-the extra protective layer using specialized mortar should be arranged;

SRAMP/CW/NCB-11 LOT 3 Chokhatauri-Bakhmaro Road (SH81) Km 15.9 - Km 21.4 Section:

- Location- PK 0+484 - PK 0+492- the extra protective layer using a specialized mortar should be arranged;



(ii) VERIFICATION OF DISBURSEMENT LINKED INDICATORS (DLIS)

The project was designed as a results-based IPF and particular DLIs were defined by the Loan Agreement. According to the amendment N1 to the loan agreement, initial DLIs were adjusted on July 30, 2021 (See Appendix A).

DLI 1.2 – *The share of Project Roads rehabilitated in Guria Region- 55% of roads rehabilitated under project requirements for the Year 5.*

DLI 1.2 Considers the rehabilitation of 55% of certain road sections in Guria Region to be implemented in 2021 and the remaining 45% before the project completion in June 30, 2023.

The Audit Team reviewed and examined progress of 7 rehabilitation contracts in Guria Region as per approved work programs, the Supervisor's progress reports and the IPCs. The following documents were reviewed:

- The Supervisor's monthly reports;
- Interim payment certificates;
- Performance security guarantees;
- Contract amendments;
- Insurance policies;
- Invoices and payment documents;
- Correspondences between the RD, the Supervisor, the Contractor and the WB.
- Tender announcement;
- Procurement plan;
- Bids received;
- Bid opening records;
- Bid evaluation reports;
- Letters of acceptance;
- Contract agreements;
- Advance payment guarantees.

The Audit found that the **DLI 1.2** for the fifth year project implementation indicator has not been achieved in 2021. The details of these contracts are given in Table-4 and 6.

The tender for the first stage rehabilitation works on 4 lots (SRAMP /CW/NCB-11) was published on the WB web site, official web-page of the RD and in the national newspaper "Republic of Georgia" in the beginning of September, 2020. The tender considered rehabilitation of following road sections:

- Lot 1 – Sajavakho-Chokhatauri-Ozurgeti-Kobuleti (SH 02) road section Km 35- Km 43.6 and Km 47.2 - Km 48;
- Lot 2 – Sajavakho-Chokhatauri-Ozurgeti-Kobuleti (SH 02) road section Km 54.0 - Km 67.7;
- Lot 3 – Chokhatauri-Bakhmaro (SH 81) road section Km 15.9 - Km 21.4 and Km 22.5 - Km 24.5;
- Lot 4 - Chokhatauri-Bakhmaro (SH 81) road section Km 34 - Km 50.



The bidders were allowed to bid for one or any combination of lots and offer discounts when awarded more than one contract. The bidding was conducted through the National Competitive Bidding Procedures as specified in the World Bank Guidelines on “Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits and Grants, January 2011, revised in July 2014”.

According to the Bid Evaluation Report dated December 10, 2020, three bids were submitted by the deadline of the bid submission. One bidder presented incomplete technical proposal and was not accepted for further examination.

Table 3 – Submitted and Estimated bid prices-NCB-11

Name of the Company	Lot-1	Lot-2	Lot-3	Lot-4	Total
Company Black Sea Group LLC	8 441 360	11 914 796	7 392 070	16 152 728	43 900 953
China Road and Bridge Corporation	8 128 896	10 777 600	6 540 038	16 280 968	41 727 502
RD estimated amount	9 088 855	12 048 528	7 311 857	18 206 761	46 656 001

Based on the analysis of the Lowest Evaluated Responsive Bid submitted by the China Road and Bridge Corporation, the Bidder met all qualification requirements. Thus, the Tender Committee recommended awarding the Contract to the China Road and Bridge Corporation. No objection from the WB was received on December 23, 2020.

The RD concluded the agreement with the China Road and Bridge Corporation on May 13, 2021 and the contract details were agreed as follows:

Table 4– Contract Details- NCB-11

Contract Number	Contract Amount (GEL)	Contract Duration (Months)	Length (KM)
Contract No SRAMP/CW/NCB-11-Lot 1: Rehabilitation works of Sajavkho-Chokhatauri-Ozurgeti-Kobuleti Road (Sh-02) km 35-km 43.6 and km 47.2-km 48	8,128,896.48	12	9.4
Contract No SRAMP/CW/NCB-11-Lot 2: Rehabilitation of Sajavkho-Chokhatauri-Ozurgeti-Kobuleti Road (Sh-02) km 54.0-km 67.7	10,777,599.64	16	13.7
Contract No SRAMP/CW/NCB-11-Lot 3: Rehabilitation of Chokhatauri -Bakhmaro Road (Sh-81) km 15.9-km- 21.4 and km22.5-km24.5	6,540,038.27	10	7.5
Contract No SRAMP/CW/NCB-11-Lot 4: Rehabilitation of Chokhatauri-Bakhmaro Road (Sh-81) km 34-km 50	16,280,967.61	18	16

The tender for the second stage rehabilitation works on 4 lots (SRAMP /CW/NCB-12) was published on the WB web site, on the official web-page of the RD and in the national newspaper “Republic of Georgia” in October, 2020. The tender considered rehabilitation of the following road sections:

- Lot 1 – Chokhatauri-Zomleti (Bypass 83) road section Km 3.5-Km 13.8;
- Lot 2 – Sajavkho-Chokhatauri-Ozurgeti-Kobuleti (Bypass02) road section Km 17-Km19.5;
- Lot 3 – Ozurgeti-Natanebi-Ureki (Bypass 46) road section Km 0.0 – Km 2.8;
- Lot 4 – Ozurgeti-Natanebi-Ureki (Bypass 46) road section Km 16 – Km 21.2 and Km 21.7-Km 22.0.

According to the Addendum N1, issued on November 13, 2020, Lot 4- Ozurgeti-Natanebi-Ureki (Bypass 46) road section Km 16 – Km 21.2 and Km 21.7-Km 22.0 was canceled and withdrawn from the bidding documents.

The bidders were allowed to bid for one or any combination of the lots and offer discounts when awarded more than one contract. The bidding was conducted through the National Competitive Bidding Procedures as specified in the World Bank's Guidelines on "Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits and Grants, January 2011, revised in July 2014".

According to the Bid Evaluation Report dated 2 March, 2021, three bids were submitted by the deadline for the bid submission.

Table 5 – Submitted and Estimated bid prices - NCB-12

Name of the Company	Lot-1	Lot-2	Lot-3	Total
China Road and Bridge Corporation	11 774 256	2 301 908	2 763 480	16 839 644
Company Black Sea Group LLC	14 669 896	2 543 079	3 282 060	20 495 035
New Road LCC	14 400 651	3 307 662	3 595 158	21 303 471
RD estimated amount	12 574 605	2 485 237	2 971 825	18 031 667

Based on the analysis of the Lowest Evaluated Responsive Bid submitted by the China Road and Bridge Corporation, the Bidder met all qualification requirements. Thus, the Tender Committee recommended awarding the Contract to the China Road and Bridge Corporation.

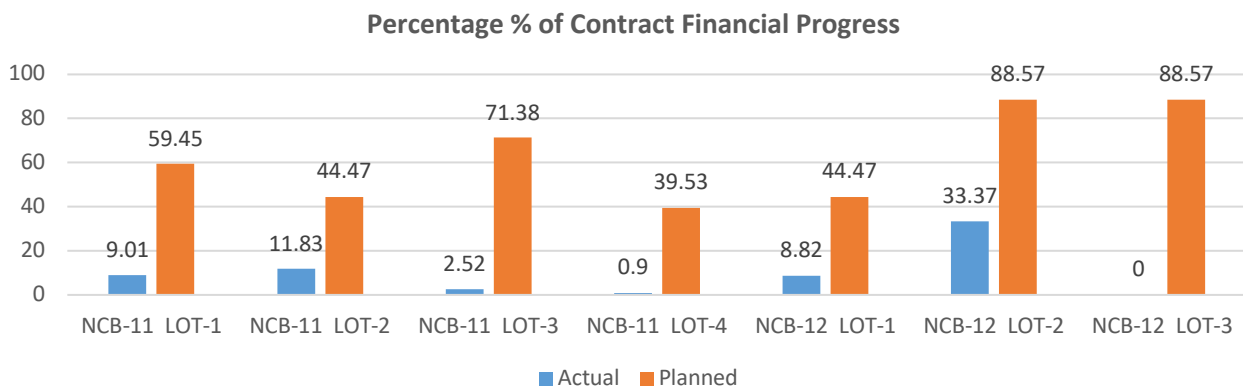
The RD concluded the agreement with the China Road and Bridge Corporation on May 13, 2021, and the contract details were agreed as follows:

Table 6 – Contract Details- NCB-12

Contract Number	Contract Amount (GEL)	Contract Duration (Months)	Length (KM)
Contract No SRAMP/CW/NCB-12-Lot 1: Rehabilitation works of Chokhatauri-Zomleti Road(Sh-83) section km 3.5-km 13.8,	11,774,256.22	16	10.3
Contract No SRAMP/CW/NCB-12-Lot 2: Rehabilitation works of Sajavakho-Chokhatauri-Ozurgeti-Kobuleti Road (Sh-02) section km 17- km 19.5	2,301,908	6	2.5
Contract No SRAMP/CW/NCB-12-Lot 3: Rehabilitation works of Ozurgeti-Natanebi-Ureki Road (Sh-46) section km 0.0-km 2.8	2,763,479.73	6	2.8

Based on the Supervisor's report, the completion percentages of the road sections- CW/NCB-11 and CW/NCB-12 by December 2021 were as follows:

Figure 2 – Rehabilitation contracts and the performance rates on the basis of Supervisor's monthly reports



First amendment for the CW/NCB-12 –LOT 2 road section was signed on December 20, 2021- According to the amendment, the final deadline for the rehabilitation works was extended until January 27, 2022, due to the following reasons:

- For culvert construction at k1+992, the rehabilitation works of existing retaining wall were not included in the original design and the BOQ. Also the relocation of gas pipeline on this section was not included in the original design;
- For culvert constructing at k2+410- the extension of pipe culvert and its auxiliary was required due to the design defects, which further resulted in demolition and re-installation of the fences at the right side of the private property; the cutting and the disposal of the abandoned pipes was required on the left side of the property;
- For the RC ditch construction, the relocation of telecom optical cable was not included in the original design and the BOQ;
- The water pipe rehabilitation was affected by the curbstone and the sidewalk works;
- The vast amount of soft soil replacement caused delay to the work progress;
- Additional RC ditch with grating was assigned to the Contractor;
- Additional water pipe replacement work was assigned to the Contractor.

According to the Supervisor's letter, the delay in the contractual project was not entirely due to the reasons mentioned above, but also due to the delay in the start of the activities, the mobilization of required manpower, the equipment, the lack of good management and the key experts. Despite the deficiencies identified in the contract implementation process, the Supervisor considered the unforeseen factors and the variations as eligible for extension of the rehabilitation works.

First amendment to the CW/NCB-12 –LOT 3 road section was signed on December 6, 2021 - According to the amendment, the final deadline for the rehabilitation works was extended until January 27, 2022, due to the following reasons:

- Ozurgeti City Hall sent a letter to the RD with the request to make changes to the project documentation, as the original design would result in traffic jams and reduced safety of road users and residents (as proposed by residents). As a result, the sidewalk was proposed to be moved away from the carriageway near the private fence of the residents. The ground ditch was also proposed to be replaced with the RC ditch.

Despite the deficiencies identified in the contract implementation process, the Supervisor considered the contract extension date as acceptable.

Based on the correspondences of the Supervisor company, the low progress in the project rehabilitation works for all NCB-11 and NCB 12 lots was due to the bad management, the delays in the start of the project execution and the lack of mobilization of required manpower, the equipment and the key experts. Despite multiple warnings from the Supervisor to expedite the rehabilitation process, the progress of works remained very slow.

Supervision Contract: The RD selected a Consultant for the supervision of 7 road section rehabilitation. The contract (SRAMP/CS/QCBS-01) with selected Consultant “TNM Limited” was signed on January 26, 2018. The ceiling for the activity 3 amounted to USD 2,993,483 and GEL 4,749,634.96. Following the changes to the scope of works from OPRC to rehabilitation, the ceiling for the activity 3- was amended to USD 1,214,479.60 and GEL 2,429,198.20 on May 17, 2021 and to USD 1,214,479.60 and GEL 2,556,080.65 on September 9, 2021. The WB had no objection to the mentioned amendments.

The Audit verifies, that the DLI 1.2, which related to the rehabilitation of 55% of roads in 2021 has not been achieved for the year 2021.

The percentage achievement is determined based on the length (km) of roads actually rehabilitated vs the length of roads included in the Rehabilitation Contracts.

DLI 1.3 - 60 km of roads had to be rehabilitated in 2018 and 40 km of roads had to be rehabilitated in 2019 under the Design-Build Sub-program;

The Audit Team reviewed and examined the progress of Design-Build contracts as per approved work programs, the Supervisor’s progress reports and the IPCs. The following documents were reviewed:

- The Supervisor’s monthly reports;
- Interim payment certificates;
- Performance security guarantees;
- Design build contract work schedules and amendments;
- Insurance policies;
- Invoices and payment documents;
- Correspondence between the RD and the Supervisor;
- Correspondence between the RD and the WB;
- Tender announcement;
- Procurement plan;
- Bids received;
- Bid opening records;
- Bid evaluation reports;
- Letters of acceptance;
- Contract agreements;
- Advance payment guarantees;

The Audit found that the **DLI 1.3 for the second and the third year project implementation indicators were not fully achieved** in 2021. The details of these contracts are given in Table 7:



Table 7 – Design-Build contracts and the performance rates on the basis of the Supervisor’s monthly reports

Contract No	Contract Date	Winner Company	Activity	According to the contract (KM)	Contract Performance by 31.12.2020 (km)	Contract Performance by 31.12.2020 (%) ³	Contract Performance by 31.12.2021 (km)	Contract Performance by 31.12.2021 (%) ⁴
SRAMP/CW/NCB-05	02.05.2017	AGT Management, Consulting and Construction LTD	Design-Build and Take-Over of Khidistavi-Ateni-Boshuri Road Section Rehabilitation from 12.4 km to 22.5km, under OPRC	10.01	10.01	89%	10.01	92.37%
SRAMP/CW/NCB-01	02.06.2017	AGT Management, Consulting and Construction LTD	Design-Build and Take-Over of Tianeti-Akhmeta-Kvareli-Ninigori Road Section Rehabilitation from 1 km to 30 km, under OPRC	27.78	20	60.21%	20	64.24%
SRAMP/CW/NCB-04 LOT 1 (Cancelled in 2019)	04.09.2017	AZ-INSHAAT LTD	Design-Build and Take-Over of Zhinvali – Barisakho - Shatili Road Section Rehabilitation from 16 km to 25.5 km, under OPRC	9.52	6	48%	n/a	n/a
SRAMP/CW/NCB-09	16.06.2020	“RTD” LLC	Rehabilitation Works for Zhinvali – Barisakho - Shatili Road Section from 16 km to 25.5km.	9.52	-	39%	9.52	90.72%
SRAMP/CW/NCB-04 LOT 2 (Cancelled in 2019)	04.09.2017	AZ-INSHAAT LTD	Design-Build and Take-Over of Zhinvali – Barisakho - Shatili Road Section Rehabilitation from 25.5 km to 32km, under OPRC	7.24	2	21%	n/a	n/a
SRAMP/CW/NCB-10	22.07.2020	China Road and Bridge Corporations	Rehabilitation Works for Zhinvali – Barisakho - Shatili Road Section Rehabilitation from 25.5 km to 32km.	7.24	-	-	6.90	77.14%
SRAMP/CW/NCB-03 LOT 1	01.11.2017	Sakmilsadenmshe-ni LTD	Chrebalo-Nikortsminda Road Section Rehabilitation from 1 km to 14.6 km, under OPRC	13.6	13.6	98%	13.6	98%
SRAMP/CW/NCB-03 LOT 2	06.11.2017	JV “Orientiri Ltd & Sakmilsadenmshe-ni Ltd & Arnabi 21 LTD	Design-Build and Take-Over of Chrebalo-Nikortsminda Road Section Rehabilitation from 14.6 km to 25.8 km, under OPRC	11.42	11.42	95%	11.42	95%

³ Implemented works include: Rehabilitation of road, bridges, road signage, marking and furniture.

⁴ Implemented works include: Rehabilitation of road, bridges, road signage, marking and furniture.

Contract 1: SRAMP/CW/NCB-05 (Contract Amount GEL 6,155,842, Contract Date 02 May 2017).

The Contract provided 12 months Design-Build and Take-Over of Khidistavi-Ateni-Boshuri Road Section Rehabilitation from 12.4 km to 22.5 km (10.01 km total), under the OPRC. As the Supervisor's monthly progress reports describe, 59% of the work was completed by December 2019, including the asphalt pavement on 8.00-km section and 88.92% by December 2020, and including the asphalt pavement on full 10.01-km section.

Preventive actions taken by the GOG to stop Covid-19 pandemic (including mobility restrictions) were named as the main reasons for not completing 100% of the road.

A Completion Certificate issued by the supervision Consultant on July 6, 2021 confirmed that the Contractor completed obligations in acceptable manner. The RD issued an order, on July 30, 2021, establishing the Committee, which was responsible for the validation of the Completion Certificate. After inspecting the road construction, some shortcomings were detected on the site. As a result, the defect improvement works were extended two times until September 13 and November 13, 2021, but the Contractor was not able to eliminate the defects in time. As a result, the RD decided to complete the remaining construction works on its own, financing them from the first retained portion of the rehabilitation amount.

Contract 2: SRAMP/CW/NCB-01 (Contract Amount GEL 18,964,874, Contract Date June 2, 2017).

The Contract provided 20 months Design-Build and Take-Over of Tianeti-Akhmeta-Kvareli-Ninigori Road Section Rehabilitation from 1 km to 30 km (27.78 km total) under the OPRC. As the Supervisor's monthly progress reports described, 60% of the work was completed by December 2020, including the asphalt pavement on 20.00-km section and 64.24 % of work by December 2021, without additional asphalt pavement works.

The first amendment was signed on February 15, 2021 (Amendment N7) - According the agreement, the project completion date was extended until May 31, 2021. The main reasons for amendment were the COVID 19 pandemic and the political situation in the Contractor's home country - Azerbaijan. The amendment entered into force retroactively from October 30, 2020.

Based on the correspondence of the RD and the Supervisor, (despite multiple verbal and written warnings to the Contractor), the Contractor had not executed works since March 2021 and the progress of the works was very low; it reached only 64.24% completion throughout the duration of the contract. Due to the serious breaches of the contractual obligations, the project manager recommended the employer to impose contractual sanctions against the Contractor and consider the termination of the contract on April 29, 2021. Due to further violation of the contractual⁵ requirements, the employer issued the notice of the contract termination on June 30, 2021. The advance payment amount was transferred to the State Treasury by the Guarantor Bank on May 27, 2021 (GEL

⁵ In accordance with the Sub-Clause 59.2.2(b) of the General Conditions of the Contract, the Employer is entitled to give a notice to the Contractor if the Contractor has without valid reason failed to commence work on the Road promptly or has suspended the progress of the Contract performance for more than twenty-eight (28) days after receiving a written instruction from the Employer to proceed, requiring the Contractor to remedy the default. 59.2.2(c) of the Particular Conditions of the Contract, the condition of persistent failure to execute the Contract is reached if the Contractor has failed to achieve any milestone of the Rehabilitation Works, as specified in Sub-Clause 17.2 of the Particular Conditions of the Contract, within sixty (60) days after the date when the Milestone should have been reached according to the agreed Program of Performance.



967,042.72). The Performance Guarantee at 10% of the contract amount GEL 1,896,487.36 was paid to the State Treasury on July 21, 2021.

SRAMP/CW/NCB-13 - Rehabilitation of Remaining Works of Tianeti-Akhmeta-Kvareli-Ninigori Road Section from km 1 to km 30- The Request for Bids was advertised through the National e-procurement system (SPA) on October 26, 2021. The deadline for submission of bids was November 29, 2021, estimated cost- GEL 13,798,496. Three bids were submitted by the following bidders:

1. Road Maintenance Building Company Serpantini LLC/Georgia- GEL 12,141,872.73;
2. JEU Group LLC/Georgia- GEL 15,796,954.43;
3. Company Black Sea Group LLC/Georgia- GEL 17,528,092.95.

The contract was awarded to the Road Maintenance Building Company Serpantini LLC/. The company was a responsive bidder and offered the lowest price. All necessary procedures for signing of the Contract with the successful bidder were underway as of December 31, 2021.

Contract 3: SRAMP/CW/NCB-04 LOT 1 (Contract Amount GEL 6,853,447, Contract Date 04 September 2017) The Contract provided 15 months Design-Build and Take-Over of Zhinvali- Barisakho- Shatili road section rehabilitation from 16 km to 25.5 km, under the OPRC. According to the Supervisor's monthly progress reports, 48% of the work was completed by December 2019, including the asphalt pavement of 6 km section.

According to the Project Manager letter, dated October 16, 2019, the works were suspended by the Contractor from July 15, 2019 due to Contractor's financial problems. Further activities have not been observed since then despite multiple verbal and written warnings from the Project Manager and the Employer. Due to serious breaches of the contractual activities, the Employer issued a notice of termination to the Contractor⁶ on December 2, 2019. The advance payment amount was transferred to the State Treasury by the Guarantor Bank on November 11, 2019 (GEL 706,692). The Performance Guarantee at 10% of the contract amount GEL 685,345 was paid to the State Treasury on December 13, 2019. The contract was awarded to a new Contractor (**SRAMP/CW/NCB-09**).

SRAMP/CW/NCB-09 (Contract Amount GEL 6,339,618,39 Contract Date 16 June 2020) The contract provided 12 months Rehabilitation Works for Zhinvali- Barisakho-Shatili road section from 16 km to 25.5 km.

According to the Supervisor's monthly progress reports, 39% of the work was completed by December 2020 and 90.72 % by December 2021, including the asphalt pavement of the remaining 3.52 km road section.

⁶ Under sub-clause 59.2.2 (c) of the Particular Conditions of the Contract, the condition of persistent failure to execute the Contract is reached if the Contractor has failed to achieve any milestone of the Rehabilitation Works, as specified in Sub-Clause 17.2 of the Particular Conditions of the Contract, within sixty days after the date when the Milestone should have been reached according to the agreed Program of Performance.

Five amendments to the contract were signed during 2021:

The first amendment was signed on July 13, 2021 - According to the amendment, the final deadline for the rehabilitation works was extended until August 31, 2021, due to the additional works required during construction process;

The second amendment was signed on August 31, 2021. According to the amendment, the final deadline for rehabilitation works was extended until September 15, 2021, mainly due to the COVID 19 pandemic;

The third amendment was signed on September 15, 2021 – According to the agreement, the project completion date was extended until September 25, 2021 due to heavy rain which hampered the road marking works;

The fourth amendment was signed on September 24, 2021 - According the agreement, the project completion date was extended until October 15, 2021 due to heavy rain and rocky mass sliding from the slopes which damaged the works already completed by the company;

The fifth amendment was signed on October 8, 2021 - According to the amendment, the contract value was reduced to GEL 6, 057,187.95, due to unforeseen works and changes during the rehabilitation process and the revised bill of quantities.

As the Contractor did not succeed in completing remaining works within the timeframe of the contract, the liquidation damages of 0.1% of the works total value per calendar day of delay has been imposed on the Contractor and totaled to GEL 321,030.96. The Supervisor issued the Completion Certificate on December 10, 2021 thus confirming that the Contractor completed its contractual obligations. The RD, through an order, appointed the Committee on December 29, 2021, to Validate the Completion Certificate.

Contract 4: SRAMP/CW/NCB-04 LOT 2 (Contract Amount GEL 5,111,547, Contract Date 04 September 2017). The Contract envisaged 15 months Design-Build and Take-Over of Zhinvali – Bari-sakho - Shatili road section from 25.5 km to 32 km, under the OPRC. As stated in the Supervisor's monthly progress reports, 21% of the work was completed by December 2019, including the asphalt pavement on 2 km section.

According to the Project Manager's letter dated October 16, 2019, the works were suspended by the Contractor from July 15, 2019 due to the Contractor's financial problems. Further activities have not been performed on the site despite multiple verbal and written warnings from the Engineer and the Employer. Due to serious breaches of the contractual activities, the Employer gave a notice of termination to the Contractor⁷ on December 2, 2019. The advance payment was transferred to the State Treasury by the Guarantor Bank on October 1, 2019 (GEL 956,983). The Performance Guarantee at 10% of the contract amount GEL 511,155 was paid to the State Treasury on December 13, 2019.

⁷ Under sub-clause 59.2.2 (c) of the Particular Conditions of the Contract, the condition of persistent failure to execute the Contract is reached if the Contractor has failed to achieve any milestone of the Rehabilitation Works, as specified in Sub-Clause 17.2 of the Particular Conditions of the Contract, within sixty days after the date when the Milestone should have been reached according to the agreed Program of Performance.



The contract was awarded to a new Contractor (**SRAMP/CW/NCB-10**).

SRAMP/CW/NCB-10 (Contract Amount GEL 6,997,463.65 Contract Date 22 July 2020)- The contract provided 12 months Rehabilitation Works for Zhinvali- Barisakho- Shatili road section from 25.5 km to 32 km. According to the Supervisor's monthly progress reports, 0% of works were completed by December 2020 and 77.14% of works were completed by December 2021, including the asphalt pavement of 4.90 km road section.

The first amendment was signed on August 11, 2021 - According to the amendment, the final deadline for rehabilitation works was extended until October 31, 2021, due to the changes in the design during the implementation of rehabilitation works. The amendment retroactively entered into force on July 24, 2021.

As contract did not include 1.26 km road section between Zhinvali- Barisakho- Shatili between 32km-33km, the Contractor agreed to carry out additional rehabilitation works and submitted the revised bill of quantities, the drawings and the expert conclusion for the new unit rates and the work program. Based on the mentioned documents, the Supervisor recommended a 3 months period for completing additional 1.26 km road section works.

Due to additional rehabilitation works, the **Addendum N1** was signed on August 4, 2021. The completion date for the works under the addendum was set at 3 months, from the date of the Addendum N1. The total price of additional works amounted to GEL 1,650,021.57.

The second amendment in 2021 was signed on November 1 –Due to the covid-19 pandemic issues and heavy rain which negatively affected the construction process, the final deadline for rehabilitation works was extended to November 30, 2021 and Addendum N2 was extended by 26 days.

Contract 5: SRAMP/CW/NCB-03 LOT 1 (Contract Amount GEL 8,769,412, Contract Date 01 November 2017). The Contract envisaged 14 months Design-Build and Take-Over of Chrebalo-Nikorts-minda road section rehabilitation from 1 km to 14.6 km, under the OPRC. According to the Supervisor's monthly progress reports, 98% of the works had been completed by December 2019, including the asphalt pavement on 13.6 km section.

The RD through an order, appointed the Committee on August 30, 2019, to validate the completed road works. The Committee detected certain shortcomings on the site. The Contractor, due to winter season constraints, was unable to eliminate all the defects in a short period of time, thus the defect improvement works were postponed until spring 2020. The Committee signed the final Certificate of Completion on July 29, 2020.

Contract 6: SRAMP/CW/NCB-03 LOT 2 (Contract Amount GEL 9,764,269, Contract Date 06.11.2017) The Contract envisaged 12 months Design-Build and Take-Over of Chrebalo-Nikorts-minda road section Rehabilitation from 14.6 km to 25.8 km, under OPRC. The Supervisor's monthly progress reports stated that 95% of works had been completed by December 2019, including the asphalt pavement on 11.42 km section.



The Completion Certificate issued by the supervision Consultant on July 5, 2019 confirmed that the Contractor completed its obligations under the contract on June 27, 2019. The RD appointed the Committee for validation of the Certificate. The Committee signed the final Completion Certificate on July 31, 2019.

Supervision contract: The RD selected the Consultant for supervision of rehabilitation of 4 road sections (under Design and Build Contracting Methodology). The contract (SRAMP/CS/QCBS-02) with the selected Consultant (“JV Road Rehabilitation and Modernization Supervision Direction LTD / Nievelt Ingenieur GmbH/ Centralna Punta laboratorija Doo LTD”) was signed on May 2, 2017 for the amount of EUR 805,255.6 and GEL 2,285,070, respectively. The contract term was set at 30 months for contract supervision and 24 months for defect liability, 54 months in total. The supervision part of the contract expired in November 2019, but the supervision works on the Design-Build contracts were still ongoing. The first amendment was signed on September 16, 2020 and the contract supervision and the defect liability period was extended to 74.3 months in total. The ceiling increased to EUR 1,285,539.20 and to GEL 3,641,196.80, respectively. Three amendments were signed in 2021. According to the amendment signed on April 15, 2021, the ceiling in foreign currency amounted to EUR 1,285,539.20 and increased to GEL 3,723,796.80 in local currency. According to the amendment signed on October 28, 2021, the contract supervision period extended to 53.65 months and the defect liability to 24 months, 77.65 months in total and the ceiling in foreign currency increased to EUR 1,370,770.60 and to GEL 3,943,884.50 in local currency. The WB had not objected to the amendments.

DLI 1.3 – The targets of the Design-Build Sub-program achieved

Rehabilitation of 20 km road section financed by the GOG in 2019

According to the SRAMP requirements, sub-component 1.2 Rehabilitation and Improvement of Secondary Roads Assets through Design-Build Contracts envisaged the rehabilitation of 100 km of roads, from which the Project financed 80 km of the Design-Build Sub-program, while the remaining 20 km was financed from the GOG’s budget, outside the scope of the SRAMP. The RD selected Sagarejo-Udabno-Davit-Gareji road section (13 km to 27 km) for Design-Build and rehabilitation works and Marneuli-Tetritskaro-Tsalka road section (7 km to 14 km) for design - build and rehabilitation works.

The Design-Build contract for **Marneuli-Tetritskaro-Tsalka** road section was awarded to the LLC “Ktsia” for the amount GEL 3,998,376⁸ on June 09, 2020. Based on the agreement, the period of 90 days was set for the project design preparation and 270 days for rehabilitation after the design approval procedure. The Completion Certificate on design works was signed on September 09, 2020 between the RD and the Contractor. The rehabilitation works started from September 29, 2020.

The RD appointed the Committee on June 25, 2021 to validate the Completion Certificate. The Committee had not identified any inconsistencies and the Certificate was signed on June 29, 2021.

⁸ Including 39,983.77 for design works, 3,958,393.22 for rehabilitation works.



The Design-Build contract for **Sagarejo-Udabno-Davit-Gareji** road section was awarded to the LLC “New Power” for the amount GEL 6,414,141⁹ on June 22, 2020. Based on the agreement, the period of 90 days was defined for the project design preparation and 270 days for rehabilitation after the design approval procedure. The Certificate of Completion of design works was signed on September 23, 2020 by the RD and the Contractor. The rehabilitation works started from September 29, 2020.

The RD appointed the Committee on August 23, 2021 to validate the Certificate of Completion. The Committee identified no shortcomings and the final Certificate was signed on August 27, 2021.

The Audit verifies, that the DLI 1.3, which relates to the rehabilitation of 60 km of roads in 2018 and 40 km in 2019 has been cumulatively achieved by 91.45% in the year 2021.

The percentage achievement is determined based on the length (km) of roads actually rehabilitated vs the length of roads included in the Design-Build contracts. The length of the roads actually completed is calculated based on the data provided in the Supervision Consultant’s monthly progress reports (see Table 7 – The Design-Build contracts and the performance rates on the basis of Supervisor’s monthly reports).

DLI 2.1 - Update of a five-year rolling program and preparation of 6 Year plan

For examining the DLI 2.1, the Audit Team reviewed the “Handbook for the preparation of multi-year rolling plan for road asset preservation and improvements” designed for the World Bank financed project SLRP-III on November 4, 2016. The Audit also assessed and reviewed the five-year rolling program and the plan for year 6. All criteria indicated in the Handbook were taken into account in the program and the plan preparation process. According to the action plan, construction of 285 road sections were planned for 2022-2026. The construction of 189 road sections were planned in 2022, while 63.6% of mentioned roads required rehabilitation. The primary criteria are described below:

Population density 2021 - The indicator expresses the number of individuals living within 2 km buffer from the homogenous section from its length (km). In total, 513 homogenous sections had been identified as the best samples describing the population density along the secondary road network. These sections have been divided into 4 priority classes as a result of the statistical analysis shown in the table below:

Table 8- Priority classes 2021 year

Population density	Number of Sections	Population Density	Total length	Priority Classes
≥ 1800	36	9860	168	1
≥ 700; < 1800	54	1171	365	2
≥ 300; < 700	68	483	475	3
< 300	127	66	907	4

⁹ Including 82,600 for design works, 6,331,541 for rehabilitation works.

Cost-benefit analysis - reduction in road user costs (NPV) in relation to the costs of road works (capital cost).

Annual Average Daily Traffic (AADT) – is calculated as the total volume of vehicles along a road section during a year divided by 365. Currently, there are five traffic classes, determined for the secondary road network shown in the table below:

Table 9– Assigned traffic classes

Traffic Class (TC)	TC 1	TC 2	TC 3	TC 4	TC 5
Annual Average Daily Traffic	< 300	> 300; < 1000	> 1000; < 2000	> 2000; < 4000	> 4000

The traffic data along the secondary road network had been collected for approximately 89.2 % of the total road network for road sections with higher traffic volumes. In cases where traffic measurements were not conducted, the intensity for roads in traffic class 1 were assumed to be 250 vehicles/day in HDM4.

International Roughness Index (IRI¹⁰) – The RD conducts the road condition surveys, using lasers and cameras on a regular basis. This data is stored in the Geographic Information Systems (GIS) database and form the basis for the HDM4 Road network model. The conditions of the secondary road network are classified into four classes, from “good” to “bad” based on the measured magnitude of the IRI. The values for each corresponding condition are shown in the table below:

Table 10 – Condition classes

Condition	Good	Fair	Poor	Bad
International Roughness Index (IRI)	IRI <4	4 < IRI < 6	6 < IRI < 8	IRI > 8

Climate zones – Definition of accurate climate zones for each section is very important as HDM4 deterioration rates are affected by the respective parameters. The climate zone codes and the definitions are shown in the table below:

Table 11 – Climate zones and definition

Code	Definition	HDM4-CZ
A	North subtropical humid	CZ1
D	Subtropical semi-arid plain	CZ2
K	North sub-Mediterranean semi-humid	CZ3
M	Subtropical arid mountain	CZ4
U	Temperate semi-arid mountain	CZ5
X	High-mountain meadow	CZ6

In addition to the criteria mentioned above, the RD considers the following social aspects: the distance to touristic sights, the regional centers or hospitals, the number of schools in the area and the available budget.

10 M. W. Sayers, T. D. Gillespie, and W. D. Paterson, “Guidelines for the conduct and calibration of road roughness measurements,” the World Bank Technical Paper 46, The World Bank, Washington, DC, 1986.



*Based on those procedures, the Independent Audit verifies that the **DLI 2.1 has been achieved for the year 2021.***

DLI 2.2 – The IRAP study conducted on international and secondary roads network, on 200 km for the Year 2021.

The Audit Team reviewed and examined the integration of the Road Assessment Program in Kakheti region. The following documents were reviewed.

- The RD staff IRAP accreditation documents;
- The RD final report;
- Final report submission document.

The IRAP Program envisaged the assignment of the road safety ratings to selected international and secondary road sections, 900km road length in total, in accordance with the Standards of the International Road Assessment Program (IRAP).

According to the RD explanations and the correspondences with the WB, the program required the initial IRAP assessment to be conducted directly by the IRAP. Following the initial assessment, the RD employees were expected to obtain the IRAP accreditation and continue the subsequent assessment independently. In 2020, the IRAP completed approximately 502km network assessment in Mtskheta-Mtianeti.

The RD's employees participated in the trainings and workshops and 6 of them obtained the IRAP accreditation. As the RD stated, they possess all necessary human and technical resources to carry out the road safety rating works in other regions, as defined by the project. In 2021 RD employees managed to extend IRAP accreditation until June 16, 2022, as required by the IRAP accreditation process.

The RD conducted the road safety assessment for international and secondary roads in Kakheti region, 200.3 km road length in total with following road sections covered in 2021:

- Tbilisi-Bakurtsikhe-Lagodekhi- 19.5 km-110km-90.5km in total;
- Vaziani-Gombori-Telavi -64.8 km;
- Akhmeta-Telavi-Bakurtsikhe-28km-73km-45km in total.

The scope of the services for the project covered the following issues: the road survey, the coding of road attributes, the supporting data collection, the file uploading, the star rating and the safer roads investment plans, the risk mapping and the quality assurance.

In Kakheti region three star or better road sections were identified for various road users: vehicle occupant - 33%, motorcyclist - 21%, pedestrian - 49% and bicyclist - 17%. The RD employees underlined the importance of speed limit enforcement measures and introduced safer investment plan and different scenarios that could maximize the prevention of fatalities and serious injuries.

The final report was submitted to the RD management in July, 2021.



DLI 2.2 – IRAP study conducted on international and secondary roads network covered 200.3km in 2021, specified by the TOR. Independent Audit verifiers, that **DLI 2.2 for Year 5 has been achieved.**

DLI 2.3 - Detailed design and bidding documents for climate resilience measures in Racha completed for the year 2021.

The Audit Team reviewed the selection process of a Consultant, detailed designs and bidding documents prepared by the Consultant. The following documents were reviewed.

- Advertisement;
- Expression of interest;
- Shortlist Evaluation Report;
- Signed contract;
- Contract amendments;
- Correspondences between the RD and the WB;
- Information on Contract negotiation results;
- Final Draft report;

The RD selected the Consultant in accordance with the Consultant's Qualification Selections (CQS) to prepare detailed design and bidding documents for implementation priority Climate Resilience Measures.

Request for expression of interest was advertised on October 9, 2018. Six companies submitted their proposals before the deadline. Assessment criteria required the potential winner to have a general and 5 years' experience in similar project implementation process. Evaluation criteria assigned 80% weight to similar project experience and 20% weight for general project experience, respectively.

According to the evaluation report, the tender commission declared the Dongsung Engineering Co LTD as a winner and sent a letter of invitation on November 21, 2018. The contract (SRAMP/CS/CQS-04) was signed on February 21, 2019 for the amount USD 182,900.

The SAOG verifies that the Consultant selection process meets the World Bank's guidelines and the criteria on Selection and Employment of Consultants under the IBRD Loans and IDA Credits and Grants.

The Consultant was required to perform the services during the period commencing on March 12, 2019 to September 12, 2019. The objective of this service was to support the RD to increase climate resilience of secondary road network in Racha's region and develop detailed practical solutions. The Consultant was obliged to study the hydrology of watercourse crossings and drainage systems, the geology of soil strata in cut slopes and the embankments to identify stabilization requirements and carry out rock fall risk assessments. The Consultant was required to provide:

- Inception Report including: methodology, mobilization, schedule of works and activities;
- Interim Report including: hydrological, geotechnical, topographical surveys, as well as proposed recommendations and improvement works for identified sections;
- Final Draft Report including: draft bidding documents, draft detailed design of road work activities approved by the client;
- Final Report including: final bidding documents and final detailed design of road work activities.



The Contractor asked for time extension on August 21, 2019 due to weather conditions, that hindered geological research and possibility to present the final draft within the agreed time frame. Another amendment was signed on November 14, 2019 due to the fact that prepared Interim and Inception Reports were not finally approved by the Client.

The draft final report was submitted in April 2020. The Consultant provided the detailed design and bidding documents for Racha region divided into 3 Lots. The engineering-geological research works were performed for Racha Highway rehabilitation project and the surveys on the damaged sites of Kutaisi-Alpana-Mamisoni (Bypass 16) and Kutaisi-Tkibuli-Ambrolauri (Bypass 17). In addition, the conclusions and the recommendations as well as the brief descriptions of the design solutions, the rules and methods of works, the road safety measures and the ecological issues were prepared. Also, the Environmental and Social management plan for every 13 road section was also prepared for the Racha region.

As the provided draft final report required the revision procedures by the RD and the WB and incorporation of comments and recommendations for the final approval, the RD and the Contractor signed amendments in 2020 and 2021 due to the delays incurred. According to the last contract amendment, the deadline for completion of the agreement is April 25, 2022.

Based on the WB Restructuring Paper,¹¹ the package includes interventions on 13 locations with a total estimated cost being substantially higher than those estimated in the PAD. In order to stay within the budget of USD 1.2 million allocated under the Project for the consultancy as well as the climate resilience works, the RD will reduce the scope of the remaining activities.

The RD submitted the final design report to the WB on February 12, 2022.

DLI 2.3 - *considers the preparation and the completion of detailed design and bidding documents for the Climate Resilience Measures in Racha for the year 2021. According to the TOR requirements, the Independent Audit verifies that the **DLI 2.3 has not been achieved for the year 2021.***

(iii) VERIFICATION OF IMPLEMENTATION OF SAOG'S RECOMMENDATIONS

As a result of the previous Independent Audit, the SAOG identified one area for improvement. The status of implementation of recommendations are as follows:

AUDIT FINDING 1 (2017)

Useful life of roads depends on several circumstances, including: type of works done, traffic intensity, and regional climate. The SAOG established that the assessment of expected useful life of the secondary roads is not being performed by the RD during the annual planning process. As a result, the RD does not have an opportunity to justify the best identified option between the maintenance, the periodic maintenance and the rehabilitation.

¹¹ Restructuring paper on a proposed project restructuring or Secondary Road Asset Management Project approved on March 18, 2016 to Georgia.

RECOMMENDATION 1 FOR THE AUDIT FINDING 1 (2017)

In order to increase the effectiveness of the secondary road asset management, the RD should design and implement mechanisms which will allow the estimation of a road's useful life based on the type of work. The estimation can be based on the past experiences, the types of work, the AADT and the regional climate. The expected outcomes need to be compared with each other and the most effective and efficient type of work should be selected.

MANAGEMENT RESPONSE ON AUDIT FINDING 1 (2017)

According to the Georgian legislation, there are no national technical regulations and standards on construction of roads, bridges, highways and road tunnels. In 2021, the Committee for the Sectoral Economy and the Economic Policy conducted a thematic study for identifying the problems related to the introduction of uniform standards in construction sector. The RD requested the mentioned information from the Committee and expressed its readiness to participate in development and implementation of construction standards.

RECOMMENDATION IMPLEMENTATION STATUS 1 (2017)

The RD, together with other government entities is responsible for implementation of national uniform construction standards. The RD applied to the relevant agencies for participating in the mentioned processes within its competences. The SAOG can verify that the recommendation issued by the previous Audit Team for the period of July 6, 2016 to December 31, 2017, has been implemented.



Table 12 – Conversion into disbursement 2021 year (amounts in USD)

The Independent Audit verifies that the expenditure incurred during the period from January 1, 2021 to December 31, 2021 represent the eligible expenditure for reimbursement. Based on the targets achieved by the Roads Department of Georgia, the Audit Team advises the loan amount of 4,620,942 USD in 2021 be converted into disbursement. For the details see the tables below:

Total Expenses by IFR's USD 7,201,839

DLI targets, 2021	Achieved DLI results, %	Loan amount assigned to DLI	DLI loan amount eligible for conversion into disbursement	Carried Forward	Total DLI loan amount eligible for conversion into disbursement	DLI loan amount that could be recommended for conversion into disbursement in the next reporting periods
1.2 - Share 55% of project roads rehabilitated in Guria region	0%	10,725,000	-	-	-	10,725,000
1.3. - Length (100 km) of roads rehabilitated under Design-Build Sub-program	76.87%	-	-	5,751,608	4,421,442	1,330,166
2.1. - Update of a Five-Year Rolling Program and preparation of Yr6 plan	100%	79,800	79,800	-	79,800	-
2.2. – IRAP study conducted on international and secondary roads network (200km)	100%	119,700	119,700	-	119,700	-
2.3. - Detailed design and bidding documents for climate resilience measures in Racha completed	0%	180,000	-	-	-	180,000
Sum		11,104,500	199,500	5,751,608	4,620,942	12,235,166



Table 13– Advances received and carried forward

Description	Amount
Balance as of January 2020	5,928,920
Sum of advances received (January 1, 2020 – December 31, 2020)	-
Disbursements (January 1, 2019 – December 31, 2020)	(2,543,636)
Advances to be carried forward as of December 31, 2020	3,385,284
Description	Amount
Balance as of January 2021	3,385,284
Sum of advances received (January 1, 2021 – December 31, 2021)	8 800 029
Disbursements (January 1, 2021 – December 31, 2021)	(7 201 839)
Advances to be carried forward as at December 31, 2021	4 983 475

Auditors signatures

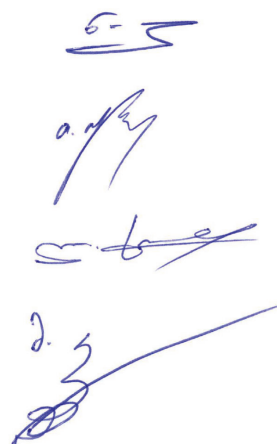
Nana Vachadze
Chief Auditor

Tengiz Tevdoradze
Senior Auditor

Lizi Tsivadze
Auditor

Malkhaz Kenteladze
Auditor

signatures



APPENDIX A – DISBURSEMENT LINKED INDICATORS (DLIS)

DLI	Unit of Measurement	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total amount allocated to each achieved DLI
		From Effective Date to December 31, 2017	From January 1, to December 31, 2018	From January 1, to December 31, 2019	From January 1, to December 31, 2020	From January 1, to December 31, 2021	From January 1, 2022 to June 30, 2023	
		Target						
1.1. Project Roads rehabilitated and periodically maintained under OPRC	Share (%) of project Roads rehabilitated and/or periodically maintained under OPRC	Consultant for preparation of detailed design and bidding documents for rehabilitation and maintenance of project roads under OPRC and provision of supervision/monitoring services selected	Detailed design and bidding documents for rehabilitation and maintenance of project roads under OPRC prepared	-	-	-	-	
	Loan amount, US\$	395,200	395,200	0.00	0.00	0.00	0.00	790,400
1.2. Project Roads Rehabilitated in Guria Region	Share (%) of Project Roads rehabilitated in Guria	-	-	-	-	55%	45%	100%
	Loan amount, US\$	0.00	0.00	0.00	0.00	10,725,000	8,775,000	19,500,000
1.3. Targets of the Design-Build Sub-program achieved	Length (Km) of roads rehabilitated under Design-Build Sub-program	6 Design-Build contracts signed and design phase commenced	60	40	-	-		100
	Proportion of Loan amount, US\$	1,810,000	9,927,000	6,223,000	0.00	0.00	0.00	17,960,000



DLI	Unit of Measurement	Year 1 From Effective Date to December 31, 2017	Year 2 From January 1, to Decem- ber 31, 2018	Year 3 From January 1, to December 31, 2019	Year 4 From January 1, to December 31, 2020	Year 5 From January 1, to Decem- ber 31, 2021	Year 6 From January 1, 2022 to June 30, 2023	Total amount allocated to each achieved DLI
		Target						
2.1. Preparation of fully-costed Five-Year Roll- ing Program us- ing the improved methodology	Preparation of fully-cost Five- Year Rolling Program	Update of a Five- Year Rolling Pro- gram and prepara- tion of Yr2 plan	Update of a Five-Year Rolling Program and preparation of Yr3 plan	Update of a Five-Year Rolling Program and preparation of Yr4 plan	Update of a Five- Year Rolling Pro- gram and prepara- tion of Yr5 plan	Update of a Five-Year Rolling Program and preparation of Yr6 plan	Update of a Five-Year Roll- ing Program and preparation of Yr7 plan	
	Proportion of Loan amount, US\$	79,800	79,800	79,800	79,800	79,800	79,800	478,800
2.2. Integration of road safety in asset manage- ment	IRAP study conducted on international and secondary roads network (km)	-	-	-	500	200	200	900
	Proportion of Loan amount, US\$	0.00	0.00	0.00	239,400	119,700	119,700	478,800
2.3. Introduction of climate resil- ience practices in RD's road asset management	Introduction of climate resilience practices in RD's road asset man- agement	-	-	-	-	Detailed Design and Bidding Documents for priority Climate Resil- ience Mea- sures in Racha completed	Implementa- tion of priority climate resilient measures in sRacha	
	Loan amount US\$	0.00	0.00	0.00	0.00	180,000	512,000	692,000
Proportion of loan amounts for each DLI per year, US\$		2,285,000	10,402,000	6,302,800	319,200	11,104,500	9,486,500	39,900,000



APPENDIX B – EXTRACT FROM THE IFRS (2021)

Project Components/Activities	Actual			Planned			Variance			Life of Project
	Current Quarter	Year to Date	Cumulative to Date	Current Quarter	Year to Date	Cumulative to Date	Current Quarter	Year to Date	Cumulative to Date	
1. Component 1 Road Asset Improvement and Preservation										
Component 1.1 Improvement and Maintenance of Secondary Roads in Guria through OPRC										
DLI 1.1	-	-	-	-	-	-	-	-	-	17,960,000
DLI 1.2	-	-	-	-	-	-	-	-	-	1,992,000
Component 1.2 Rehabilitation and Improvement of Secondary Roads Assets through Design-Build Contracts										17,960,000
DLI 1.3	1,576,101	6,696,384	22,128,937	1,577,401	5,596,788	21,029,340	1,300	(1,099,596)	(1,099,596)	
Component 1.3 Supervision and Monitoring Services of Civil Works										
DLI 1.3	155,382	505,455	2,178,519	156,711	562,448	2,235,512	1,329	56,992	56,992	
Total Component 1	1,731,483	7,201,839	24,307,456	1,734,112	6,159,235	23,264,852	2,629	(1,042,604)	(1,042,604)	
2. Component 2 Enhanced Secondary Road Assets Planning and Management										



Component 2.1 Enhance- ment of RAMS and Improved Assets Programming and Planning										
DLI 2.1	-	-	-	-	-	-	-	-	-	399,000
Subcomponent 2.2 Integrated Road Safety Management										
DLI 2.2	-	-	-	-	-	-	-	-	-	399,000
Component 2.3 Climate Re- silience Technical Assistance										
DLI 2.3	-	-	146,320	-	-	146,320	-	-	-	1,190,000
Total by Component 2	-	-	146,320	-	-	146,320	-	-	-	
Services for Part 1 and Part 2 of the Project, and Training for Part 2 of the Project	1,731,483	7,201,839	24,453,776	1,734,112	6,159,235	23,411,172	2,629	(1,042,604)	(1,042,604)	
GOG Financing 100% Land Costs	-	-	19,276	-	-	19,276	-	-	-	
GOG Financing 100% RD's Staff Out Members	-	14,429	40,705	-	14,429	40,705	-	-	-	
Category (2) Front End Fees	-	-	100,000	-	-	100,000	-	-	-	100,000
Total by Category (2) Front- End Fee	-	-	100,000	-	-	100,000	-	-	-	
Category (3) Interest Rate Cap or Interest Rate Collar Premium	-	-	-	-	-	-	-	-	-	-
Total by Category (3) Interest Rate Cap or Interest Rate Col- lar Premium	-	-	-	-	-	-	-	-	-	
Total Project Activities	1,731,483	7,216,268	24,613,757	1,734,112	6,173,664	23,571,153	2,629	(1,042,604)	(1,042,604)	40,000,000



APPENDIX C – CONVERSION INTO DISBURSEMENT

Expenditure incurred during the period of 6/06/2016 to 31/12/2017 USD 1, 813, 747

DLI targets, 2016-2017	Achieved DLI results, %	Loan amount assigned to DLI, (US\$)	DLI loan amount eligible for conversion into disbursement, (US\$)	%	Total eligible expenditures reported in IFRs, (US\$)	DLI loan amount recommended for conversion into disbursement, (US\$)	DLI loan amount that could be recommended for conversion into disbursement in the next reporting period of January 1 – December 31, 2018, (US\$)
1.1 Consultant for preparation of detailed design and bidding documents for rehabilitation and maintenance of project roads under OPRC and provision of supervision/monitoring services selected	100	395,200	395,200	17.3%	1,813,747	313,695	81,505
1.3 Six Design-Build contracts signed and design phase commenced	100	1,810,000	1,810,000	79.21%		1,436,710	373,290
2.1 Update of a five-year rolling program and preparation of Year 2 plan	100	79,800	79,800	3.49%		63,342	16,458
Sum	100	2,285,000	2,285,000	100%	1,813,747	1,813,747	471,253



APPENDIX D— CONVERSION INTO DISBURSEMENT 2018 YEAR (AMOUNTS IN USD)

Total Expenses by IFR's USD 10,235,475

DLI targets, 2018	Achieved DLI re-sults, %	Loan amount assigned to DLI	DLI loan amount eligible for conversion into disbursement	Carried Forward	Total DLI loan amount recommended for conversion into disbursement	DLI loan amount that could be recommended for conversion into disbursement in the next reporting periods
1.1. - Detailed design and bidding documents for rehabilitation and maintenance of project roads under OPRC prepared	100	395,200	395,200	81,505	476,705	-
1.3. - Length (60 km) of roads rehabilitated under Design-Build Sub-program	55.7	9,927,000	5,529,339	373,290	5,902,629	4,397,661
2.1. - Update of a Five-Year Rolling Program and preparation of Yr3 plan	100	79,800	79,800	16,458	96,258	-
2.2. - Scaling up of GeoRAP to Mtskheta-Mtianeti	-	99,750	-	-	-	99,750
2.3. - Detailed design and bidding documents for priority climate resilience measures prepared and tendered out	-	416,500	-	-	-	416,500
Sum		10,918,250	6,004,339	471,253	6,475,592	4,913,911



APPENDIX E— CONVERSION INTO DISBURSEMENT 2019 YEAR (AMOUNTS IN USD)

Total Expenses by IFR's USD 2,659,080

DLI targets, 2019	Achieved DLI re-sults, %	Loan amount assigned to DLI	DLI loan amount eligible for conversion into disburse-ment	Carried Forward	Total DLI loan amount eligible for conversion into disburse-ment	DLI loan amount that could be recommended for conversion into dis-bursement in the next reporting periods	
						2018 year related	2019 year related
1.1. - 10% of roads rehabilitated and/or periodically maintained under OPRC	-	4,200,000	-	-	-	-	4,200,000
1.2.- Percentage of the aggregate OPRC amount paid for routine mainte-nance, at least 80%	-	747,000	-	-	-	-	747,000
1.3. - Length (40 km) of roads rehabilitated under Design-Build Sub-pro-gram	2.55	6,223,000	158,687	4,397,661	4,556,348	-	6,064,314
2.1. - Update of a Five-Year Rolling Program and preparation of Yr4 plan	100	79,800	79,800	-	79,800	-	-
2.2. - Scaling up of GeoRAP to Racha-Lechkhumi	-	99,750	-	-	-	99,750	99,750
2.3. - Implementation of priority climate resilient measures in Racha	-	416,500	-	-	-	416,500	416,500
Sum		11,766,050	238,487	4,397,661	4,636,148	516,250	11,527,564



APPENDIX F— CONVERSION INTO DISBURSEMENT 2020 YEAR (AMOUNTS IN USD)

Total Expenses by IFR's USD 2,543,637

DLI targets, 2020	Achieved DLI re-sults, %	Loan amount assigned to DLI	DLI loan amount eligible for conversion into disburse-ment	Carried For-ward	Total DLI loan amount eligible for conversion into disburse-ment	DLI loan amount that could be recommend-ed for conversion into disbursement in the next reporting periods 2019 year related
1.3. - Length (100 km) of roads rehabilitated under Design-Build Sub-program	5.16%	-	-	6,064,314	312,706	5,751,608
2.1. - Update of a Five-Year Rolling Program and preparation of Yr5 plan	100%	79,800	79,800	-	79,800	-
2.2. – IRAP study conducted on international and secondary roads network (500km)	100%	239,400	239,400	-	239,400	-
Sum		319,200	319,200	6,064,314	631,906	5,751,608



APPENDIX G— METHODOLOGY AND LIST OF DOCUMENTS REVIEWED DURING THE AUDIT

The Independent Audit was conducted according to the SAOG's Performance Audit Methodology compliant with the ISSAIs. It employed three methods including: document analysis, data analysis and semi-structured interviews with the staff of the RD and the technical and environmental experts.

OBJECTIVES OF THE ASSIGNMENT	METHODOLOGY AND PROTOCOLS	LIST OF DOCUMENTS
Verification of expenditures	<p>The Independent Audit Team obtained and reviewed four quarterly IFRs covering period January 1, 2021 to December 31, 2021 and appropriate documentations.</p> <p>The audit approach for identifying the loan amount eligible for disbursement was based on TOR and was determined by applying the sum of amounts corresponding to the share of DLI targets achieved to actual eligible expenditures reported in IFRs for the period 2021.</p>	<ul style="list-style-type: none"> – All four IFRs covering period January 1, 2021 to December 31, 2021; – Invoices; – The Payment Orders; – The signed contracts; – The Procurement Plan.
Verification of compensation payments against RAP	The independent Audit Team examined land payments or other relevant payments to the project affected persons in accordance with the RAPs. Reviewed if ownership of all acquired lands had been transferred to the RD and if all compensation payments under RAPs had been paid out of the state budget.	– No activities were identified in 2021.
Verification of DLI 1.1-Project Roads rehabilitated and periodically maintained under OPRC.	Not Applicable	Not Applicable



OBJECTIVES OF THE ASSIGNMENT	METHODOLOGY AND PROTOCOLS	LIST OF DOCUMENTS
<p>Verification of DLI 1.2 Project Roads rehabilitated in Guria region, 55% of roads rehabilitation under project requirements</p>	<p>The Independent Audit Team reviewed and examined progress of seven roads rehabilitation project in Guria region as per approved work programs, Supervisor's progress reports and IPCs.</p> <p>The independent Audit Team reviewed preliminary and final reports provided by technical and environmental expert to identify progress in rehabilitation of secondary roads assets.</p> <p>The Independent Performance Audit, including verification of DLIs, confirmed the percentage achievement of the DLI multiplied by the value of the DLI amount.</p> <p>The independent Audit Team reviewed procurement process of 7 roads rehabilitation in Guria region.</p>	<ul style="list-style-type: none"> – Supervisor's monthly reports; – Interim payment certificates; – Performance security guarantees; – Contract amendments; – Insurance policies; – Invoices and payment documents; – Correspondences between the RD, Supervisor, Contractor and WB. – Tender announcement; – Procurement Plan; – Bids received; – Bid opening records; – Bid evaluation reports; – Letters of Acceptance; – Contract agreements; – Advance payment guarantees; – Environmental and social safeguard expert preliminary and final reports.
<p>Verification of DLI 1.3 – 60 km of roads rehabilitated in 2018 and 40 km of roads rehabilitated in 2019 under Design-Build Sub-program.</p>	<p>The Independent Audit Team reviewed and examined progress of six design – build contracts (80 km in total) as per approved work programs, Supervisor's progress reports and IPCs.</p> <p>The independent Audit Team reviewed preliminary and final reports provided by technical and environmental expert to identify progress in rehabilitation and improvement of secondary roads assets through Design-Build contracts.</p> <p>The independent Audit Team also reviewed the progress of two Design-Build contract, including 20km road section rehabilitation financed by the GOG's budget outside the scope of this project.</p> <p>The Independent Performance Audit, including verification of DLIs, confirmed the percentage achievement of the DLI multiplied by the value of the DLI amount.</p>	<ul style="list-style-type: none"> – Supervisor's monthly reports; – Interim payment certificates; – Performance security guarantees (advanced payments 10%); – Active design build contract work schedules and amendments; – Insurance policies; – Invoices and interim payment certificates; – Correspondences between the RD and the Supervisor; – Correspondences between the RD and the WB; – Technical expert preliminary and final reports – Environmental and social safeguard expert preliminary and final reports.



OBJECTIVES OF THE ASSIGNMENT	METHODOLOGY AND PROTOCOLS	LIST OF DOCUMENTS
Verification of DLI 2.1 - Update of a Five-Year Rolling Program and preparation of Yr6 plan.	<p>The Independent Audit Team obtained the prepared Five-Year Rolling Program and year 6 plan for confirmation of physical existence and analyzed the criteria used in update and preparation process.</p> <p>The Independent Performance Audit, including verification of DLIs, verified that the update of the multi-year rolling program has been done and the annual plan for the next fiscal year have been prepared in accordance with the improved methodology suggested under the ongoing SLRP-III.</p>	<ul style="list-style-type: none"> – The “Handbook for the preparation of Multi-Year Rolling Plan for road asset preservation and improvements” designed for the World Bank financed project SLRP-III on November 4, 2016. – The prepared Five-Year Rolling Program and year 6 plan.
Verification of DLI 2.2 – IRAP study conducted in international and secondary roads network, including km 200 for the year 2021.	<p>The Audit Team reviewed and examined the integration of Road Assessment Program for 200 km length of road network.</p> <p>The baseline survey has been done for 200 km length of road network in Kakheti region within the required time period.</p>	<ul style="list-style-type: none"> – IRAP updated certificates for RD employees; – RD final report; – RD final report submitted to the management;
Verification of DLI 2.3 - Detailed design and bidding documents for priority climate resilience measures in Racha completed for the year 2021.	The Audit Team reviewed the Consultant procurement process for preparation detailed design and bidding documents for priority climate resilience measures in Racha	<ul style="list-style-type: none"> – Advertisement; – Expression of interest; – Shortlist Evaluation Report; – Signed contract; – Contract amendments; – Correspondences between the RD and the WB; – Information on Contract negotiation results; – Final Draft report;



APPENDIX H – REQUIREMENTS FOR ENVIRONMENTAL/SOCIAL SAFEGUARD AND TECHNICAL EXPERT

The following requirements were set in TOR for environmental and social safeguard expert for the year 2021.

- An academic degree in one of the following fields: social science (sociology/geography), natural science, law, urban planning or civil engineering with at least eight years of relevant work experience;
- A minimum of five years' experience in monitoring and/or implementing environmental and social safeguards interventions;
- Environmental and social safeguards expertise in IFI funded projects, preferably in the World Bank funded projects;
- Knowledge of the Georgian environmental, as well as land management, registration and expropriation laws, regulations, and standards;
- Strong Georgian or English language skills. Knowledge of both languages will be advantage.

The following requirements were set in the TOR for technical expert for year 2021

- A civil engineer with a minimum of 7 years of general road engineering experience;
- Road engineer, with experience in performance and quality assurance;
- Road design experience of at least 5 years;
- Road safety experience is an advantage;
- Experience in contract management is an advantage;
- Report should be prepared in Georgian and English languages.

For both of the above experts, the TORs included additional requirements related to the conflict of interest.

- Selected environmental and social safeguard and technical experts should have no conflict of interest with the Secondary Road Assets Management project (SRAMP);



MAP - 1 ROADS UNDER SIX DESIGN-BUILD CONTRACTS

