Major Change in Project

Project Number: 50064-001
Loan Number: 3520
September 2019

Georgia: Batumi Bypass Road Project

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Asian Development Bank
CURRENCY EQUIVALENTS
(as of 9 August 2019)

Currency unit – lari (GEL)
GEL1.00 = $0.3407
$1.00 = GEL2.9350

ABBREVIATIONS

ADB – Asian Development Bank
ETCIC – Eurasian Transport Corridor Investment Center
IRI – international roughness index
km – kilometer
m – meter
MRDI – Ministry of Regional Development and Infrastructure
PBM – performance-based maintenance

NOTE

In this report, “$” refers to United States dollars.

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I. PROPOSED MAJOR CHANGE

1. A major change in the Batumi Bypass Road Project in Georgia is proposed for Board consideration.¹

2. The major change is an increase in project scope through the addition of a fourth output under the project comprising two additional construction subprojects: a new bridge and approach roads over the Rioni river in Poti and a new bypass road from Bakurtsikhe to Tsnori. Reallocation of existing savings can be utilized to fund the new output, which will reinforce the project’s impact of improving regional connectivity in Georgia. The change is considered major because it fundamentally affects the approved project scope and outcome by more than doubling the length of roads and/or bridges to be built. The revised design and monitoring framework is in Appendix 1.

II. BACKGROUND

3. The Board approved the project on 28 March 2017 with the following financing: Asian Development Bank (ADB): €108.19 million ($114.00 million equivalent [loan 3520-GEO]); AIIB: $114.00 million (loan 8328-GEO); Government of Georgia: $87.20 million. The project became effective on 11 October 2017 and is expected to close on 31 December 2023.

4. The project is aligned with the following impact: improving regional connectivity in Georgia so that it can play the role of regional transport and logistics hub.² The project will have the following outcome: efficiency of road transport along the East–West Highway in Georgia improved. The project at approval had two outputs. Output 1 was a new bypass road skirting Batumi constructed. This two-lane road with a length of 14.3 kilometers (km) will originate at the Senaki–Poti–Sarpi road, follow an entirely new alignment through mountainous terrain and densely populated villages, and terminate at the junction of the existing Batumi–Akhaltsikhe road. Output 2 was routine and periodic maintenance carried out using performance-based maintenance (PBM) contracts. PBM contracts, which will be implemented on about 200 km of international and connecting secondary roads, have both output- and performance-based components and consist of (i) initial repairs, (ii) routine maintenance comprising lump-sum monthly payments per km related to meeting defined operation and maintenance service levels, (iii) periodic maintenance, and (iv) emergency maintenance works. The project is classified complex, with safeguard category A for both environment and involuntary resettlement.

5. The outcome indicator is travel time from Sarpi to Poti reduced from 3 hours in 2016 to 1.5 hours by 2023. The indicator for output 1 is by 2021, a new 14.3 km, two-lane bypass road skirting Batumi constructed with an international roughness index (IRI) of 3.0 meters (m) per km or less. The indicator for output 2 is by 2025, about 200 km of international roads combined with connecting secondary roads will be maintained by private contractors on long-term PBM contracts of no less than 5 years, with an IRI of 3.0 m/km or less.

6. The Ministry of Regional Development and Infrastructure (MRDI) is the executing agency. The MRDI’s Roads Department, assisted by the Eurasian Transport Corridor Investment Center (ETCIC) of the MRDI, is the implementing agency. The International Procurement and Donor Reporting Division of the Roads Department handles all the project implementation activities under the supervision and guidance of the chair or deputy chair of the Roads Department. The ETCIC handles all financial management activities. ADB received the request for the additional

¹ ADB. Batumi Bypass Road Project.
project scope on 5 September 2018 from the Ministry of Finance through the MRDI and the Roads Department, which have prepared the feasibility, design, and due diligence documentation. The Roads Department has confirmed that project savings will be used to fund the new output.

III. IMPLEMENTATION PROGRESS

7. Roads Department signed the civil works contract for the Batumi Bypass road on 29 August 2017 with Polatyol and Mapa (Turkey). As of 1 August 2019, progress was as follows: For output 1, progress stood at 19% (against 51% scheduled). Roads Department has been handing over the construction site to the contractor progressively since the start of work on 14 March 2018 to allow for required land acquisition. The contractor had access to about 95% of the alignment and planned to mobilize additional resources to make up for the delay. Roads Department is closely monitoring resettlement issues. A critical milestone was reached in June 2019 with the breakthrough of tunnel 5 (at the southern end of the alignment), which allows for easier access to the locations of subsequent bridges and tunnels (five tunnels and 14 bridges). Other factors that have contributed to delays include unexpected subsoil conditions (hard rock outcrops); unstable soil conditions, requiring additional slope stabilization and redesign of tunnel portals; inadequate drainage design (improved to prevent flooding around the surrounding houses and a school); and delays in relocating assets and services, including an oil storage facility.

8. For output 2, no PBM contracts have been tendered to date; however, a considerable amount of work has been undertaken by ADB, the government, and development partners to lay the groundwork for PBM to be successful in Georgia. Georgia has one ongoing pilot project in the Kakheti region and an additional pilot project planned in the Guria region under World Bank funding. To date, preliminary road network assessment, study of the level of performance criteria noncompliance based on (other) ongoing PBM contract supervision data, IRI measurements, and right-of-way video-log survey have been completed. The Roads Department is finalizing the terms of reference for technical support to prepare the PBM bidding documents.

9. On 29 March 2019, a third output related to preparation of the detailed design and associated due diligence (activity 2) for the next contiguous road section (from Batumi Bypass to Sarpi at the border with Turkey) was added through a minor change in this project. Roads Department transferred this subproject from the Road Corridor Investment Program, tranche 3, which will close on 29 September 2019. The revised draft report for the alternative alignment analysis and feasibility study (activity 1) was received by Roads Department from the design and feasibility consultant in May 2019. Roads Department requested modifications and the final alignment feasibility study is due on 30 August 2019. The detailed design and associated due diligence for the selected alignment is expected in February 2020.

10. The project is rated on track against the five portfolio criteria: technical, contract awards, disbursement, financial management, and safeguards.3

IV. RATIONALE FOR THE PROPOSED CHANGES

11. The largest share of the ADB loan was to be applied to 32% of the physical works to construct the Batumi Bypass and hire the construction supervision consultant ($75.8 million or 66% of ADB loan).4 Following civil works procurement, benefiting from strong competition and low oil prices in late 2016, the costs against the ADB financing resulted in estimated savings of

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3 Performance Overview (accessible from the list of linked documents in Appendix 2).
4 The AIIB loan (Loan 8328-GEO), administered by ADB, finances the balance of construction and supervision. The Government of Georgia has opted not to utilize savings on the AIIB loan.
$55.8 million. The government requested that these savings be utilized for two additional
subprojects described below.5

12. **Subproject 1: Poti Bridge and approach roads.** The 2.5 km project, including a 500 m
bridge, is along the E-60 transit corridor.6 Construction of the new Poti Bridge will give Poti and
Batumi Ports improved links with Caspian seaports through the East–West Highway. The E-60
transit corridor currently crosses the Rioni River northeast of Poti across a river-level flood control
barrage (a bridge with water regulation structures), which was built in 1959 and is in a very poor
condition. The Roads Department does not own or manage this flood control barrage, which the
water agency could close to road traffic at any time. If the structure were damaged or failed, it
would necessitate a 120 km diversion for traffic to reach Poti. Many trucks use this northern route
because it is the shortest route from east Georgia to Poti port.

13. **Subproject 2: Bakurtsikhe–Tsnori road.** Bakurtsikhe is connected to Tsnori through a
category 3 road passing through seven settlements. The route is an alternate to the Tbilisi to
Azerbaijan border route and takes pressure off the existing East–West corridor route. The narrow
road is the main avenue for local drivers, public transport, and long-distance cargo trailers, and is
often busy with local pedestrians including schoolchildren. Residential houses, shops, and trading
stalls are placed close to the roadside, which mostly lack a pedestrian footpath, presenting safety
risks to pedestrians and road users. The new 16 km bypass road will connect with a section of
secondary bypass road under construction to the west, and with an existing road at km120 to the
east, where the existing road widens and straightens, continuing to the border with Azerbaijan at
Lagodekhi. Development of this corridor is part of a long-term plan by Georgia for a second border
crossing with Azerbaijan. ADB is supporting the associated road investments on the Azerbaijan
side of the border.7 The alignment of the bypass is through an agricultural land adjacent to an
irrigation canal and an associated service road to avoid impacts on housing and structures.

14. The proposed two new subprojects are in line with ADB’s country partnership strategy for
Georgia, 2019–2023, the goal of which is to develop economic corridors to create jobs, combat
poverty, and facilitate interregional trade.8 The subprojects are also in line with the government’s
Socioeconomic Development Strategy and its “Four Point Action Plan.”9 Inclusion of this output
will strengthen the program’s socioeconomic impact given that both subproject areas are linked
to the East–West corridor. The project impact, outcome, and classification (complex) remain
unchanged. Indicators for output 4 have been added to the design and monitoring framework.10

15. The proposed Poti Bridge subproject is estimated to cost $24.4 million and the
Bakurtsikhe–Tsnori road subproject is estimated to cost $35.0 million. These costs include civil
works, supervision, land acquisition, contingencies, and taxes (Table 1). Roads Department has
initiated advance actions in line with ADB’s Procurement Guidelines (2015, as amended from time
to time) to facilitate project implementation for civil works procurement and consultant selection.
Works are expected to be completed in 24 months, starting from the fourth quarter of 2019. The
additional scope does not entail any changes in the existing implementation arrangements and

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5 Map: Batumi Bypass Road Project (accessible from the list of linked documents in Appendix 2).
6 Georgia is a member of the Trans European Motorway Network. E-60 and 70 connect France with the People’s
Republic of China through Georgia. Where it transits Georgia, the route is known as the East–West Highway.
The “Four-Point Action Plan” is for infrastructure, business environment, human resources, and good governance.
In 2016, it replaced Georgia 2020: Socioeconomic Development Strategy of Georgia.
9 The additional scope and associated due diligence do not change the gender categorization of no gender elements.
does not require additional capacity building for the project implementation unit. The Borrower has requested ADB to extend the project closing date to allow completion of the 5-year PBM contract period. There will be no change in the project financing plan (Table 2).

Table 1: Summary Cost Estimates

<table>
<thead>
<tr>
<th>Items</th>
<th>Amount ($ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Appraisalb</td>
</tr>
<tr>
<td>A. Base Costc</td>
<td></td>
</tr>
<tr>
<td>1. Batumi Bypass Road</td>
<td>260.9</td>
</tr>
<tr>
<td>2. Performance-Based Maintenance</td>
<td>15.4</td>
</tr>
<tr>
<td>3. Detailed Design</td>
<td>0.0</td>
</tr>
<tr>
<td>4. Additional Works</td>
<td>0.0</td>
</tr>
<tr>
<td>a. Batumi Bypass–Sarpi Road</td>
<td>0.0</td>
</tr>
<tr>
<td>b. Bakurtsikhe–Tsnori Road</td>
<td>0.0</td>
</tr>
<tr>
<td>Subtotal (A)</td>
<td>276.3</td>
</tr>
<tr>
<td>B. Contingenciesd</td>
<td>22.1</td>
</tr>
<tr>
<td>C. Financing Charges During Implementatione</td>
<td>16.8</td>
</tr>
<tr>
<td>Total (A+B+C)</td>
<td>315.2</td>
</tr>
</tbody>
</table>

a Includes taxes and duties plus land acquisition costs to be financed from government resources.
b Refers to the original amount as approved on 28 March 2017.
c In September 2016 prices for the original scope, and in mid-2018 prices for the major change in scope portion.
d Physical contingencies computed at 10% for civil works. Price contingencies computed at 1.4%–1.5% on foreign exchange costs and 3.0%–5.0% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.
e Includes interest and commitment charges in the case of the Asian Development Bank loan; and interest, commitment charges, and front-end fee in the case of the Asian Infrastructure Investment Bank loan.

Source: Asian Development Bank estimates.

Table 2: Financing Plan

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount ($ million)</th>
<th>Share of Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian Development Bank</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ordinary capital resources (regular loan)</td>
<td>114.0</td>
<td>36.2</td>
</tr>
<tr>
<td>Asian Infrastructure Investment Bank (loan)a</td>
<td>114.0</td>
<td>36.2</td>
</tr>
<tr>
<td>Government</td>
<td>87.2</td>
<td>27.6</td>
</tr>
<tr>
<td>Total</td>
<td>315.2</td>
<td>100.0</td>
</tr>
</tbody>
</table>

a Joint and contractual cofinancing to be fully administered by Asian Development Bank.

Source: Asian Development Bank estimates.

V. DUE DILIGENCE

16. Technical. The Poti Bridge subproject has been designed to AASHTO11 standards and will have one carriageway with two 3.5-meter-wide traffic lanes plus 2-meter breakdown lanes or shoulders. The Bakurtsikhe–Tsnori road subproject has been designed in accordance with Georgian road design standards and will have one carriageway with two 3.5-meter-wide traffic lanes plus 2-meter hard shoulders. The cross-section and pavement structure for the proposed subprojects will be designed for the projected traffic volumes at project completion—about 7,000 vehicles per day for the Poti Bridge and about 3,000 vehicles per day for the Bakurtsikhe–Tsnori road. Both subprojects will be built on new alignments to bypass existing settlements and minimize social impacts. The subprojects will be designed to maximize safety and ensure climate resilience by eliminating hazardous curves, providing road-safety furniture, diverting heavy traffic

11 AASHTO is American Association of State Highway and Transportation. The pavement structure is designed in accordance with the 1993 AASHTO Guide for Design of Pavement Structures.
away from populated areas, and improving road drainage systems.\textsuperscript{12} The inclusion of the Poti Bridge and the Bakurtsikhe–Tsnori road in the project scope will present no major technical issue.

17. The economic analysis was updated to include two additional components, based on ADB’s guidelines on economic analysis.\textsuperscript{13} The economic internal rate of return of the revised project is 17.1\%, which is higher than the original estimate of 16.1\%. Of the two additional components, the Bakurtsikhe–Tsnori road is economically viable by itself at 12.7\%. ADB was unable to individually quantify the benefits of the Poti Bridge, thus, it excluded benefits from the analysis. Road Department operational improvements in terms of maintenance planning and attention to road safety both point to the likely sustainability of the investment.\textsuperscript{14}

18. Resettlement and indigenous peoples. The Bakurtsikhe–Tsnori road subproject is classified \textit{A} for resettlement. Roads Department prepared a land acquisition and resettlement plan in accordance with ADB’s Safeguard Policy Statement (2009) and it was disclosed on the ADB website on 12 August 2019. Poti Bridge is classified \textit{B} for involuntary resettlement. The associated land acquisition and resettlement plan was disclosed on the ADB website on 22 August 2019. Both subprojects are classified category \textit{C} for indigenous peoples.

19. Environment. Bakurtsikhe–Tsnori is classified \textit{B} for environment as the potential environmental impacts are largely related to the construction stage and are temporary and site-specific. Roads Department completed an initial environmental examination, which was disclosed on the ADB’s website on 3 July 2019. Poti Bridge is classified \textit{A} for environment due to its potential to cause significant irreversible adverse impacts on the Rioni River—one of the few remaining spawning rivers globally for several critically endangered fish species. An environmental impact assessment was disclosed on the ADB website on 3 May 2019 and includes a biodiversity action plan with several measures to reduce impacts, including time parameters on construction.

20. Governance. The implementation arrangements for the activities under the proposed change are described in detail in the revised project administration manual.\textsuperscript{15} The MRDI will continue as the executing agency and its Roads Department (assisted by the ETCIC) will continue as the implementing agency for the project. Overall, there are no changes to the project classification, and there are no substantial and material changes to the overall project cost or financing plan. The project closing date will be extended by 2 years, for which approval will be sought separately. The AIIB loan will be unchanged. The procurement plan has been updated. The proposed change will enhance the originally envisaged outcome and strengthen the impact. The schedule of the project’s outputs and activities will be updated to include the work plan for the proposed two new road subprojects.\textsuperscript{16} The proposed change complies with the project administration instruction (PAI) 5.02 on change of loan- and/or grant-funded projects, PAI 5.04 (Utilizing Surplus Loan Proceeds), and comments from the Procurement, Portfolio and Financial Management Department; Office of the General Counsel; Controller’s Department and Sustainable Development and Climate Change Department have been addressed.

VI. THE PRESIDENT’S RECOMMENDATION

21. The President recommends that the Board approve the major changes in the Batumi Bypass Road Project in Georgia as described in paras. 1–2.

\textsuperscript{12} Georgian road design standard adopted in 2009 uses AASHTO bridge design specifications.


\textsuperscript{14} Economic and Financial Analysis (accessible from the list of linked documents in Appendix 2).

\textsuperscript{15} Revised Project Administration Manual (accessible from the list of linked documents in Appendix 2).

\textsuperscript{16} New loan categories will be created as a result of the proposed change and their financing percentage.
# REVISED DESIGN AND MONITORING FRAMEWORK

## Impact the Project is Aligned with
Improving regional connectivity in Georgia so that it can play the role of regional transport and logistics hub (The Socioeconomic Development Strategy of Georgia [Georgia 2020]).

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<th>Results Chain</th>
<th>Performance Indicators with Targets and Baselines</th>
<th>Data Sources and Reporting</th>
<th>Risks</th>
</tr>
</thead>
</table>
| **Outcome** Efficiency of road transport along the EWH in Georgia improved | a. Travel time from Sarpi to Poti reduced to 1.5 hours by 2023 (2016 baseline: 3.0 hours)  
b. Travel time from Tbilisi to the border point at Lagodekhi (141km) reduced to 1.7 hours by 2023 (baseline: 2.1 hours in 2019) | a–b. Roads Department surveys | An inadequate road maintenance budget may jeopardize the sustainability of large investments in the road network and the preservation of road assets. |
| **Outputs** 1. New bypass road skirting Batumi constructed | 1a. New 14.3 km, two-lane bypass road skirting Batumi constructed by 2021, with an international roughness index of 3.0 m/km or less (2016 baseline: 0 km)  
2a. By 2023, about 200 km of international roads and connecting secondary roads maintained by private contractors on long-term PBM contracts of no less than 5 years, with an international roughness index of 3.0 m/km or less (2016 baseline: 0 km)  
3a. Detailed design, EIA, detailed LARP and bidding documents for Batumi Bypass–Sarpi road endorsed  
4a. New 2.5 km, two-lane road crossing the Rioni River, including a 500m bridge, constructed by 2022, with an international roughness index of 3.0 m/km or less (2019 baseline: 0 km)  
4b. New 16 km, two-lane bypass road from Bakurtsikhe to Tsnori constructed by 2022, with an international roughness index of 3.0 m/km or less (2019 baseline: 0 km) | 1a. Supervision consultant’s project progress report  
2a. Supervision consultant’s project progress report  
3a. ADB reviews and Roads Department progress reports  
4a–b. Supervision consultant’s project progress report | A small number of affected people may decline relocation and resort to lengthy disputes outside of the grievance redress mechanism, and thereby disrupt construction works.  
The local construction industry may not be mature enough to absorb the PBM concept, properly assess the risks, and accurately price their services. |
Key Activities with Milestones

Output 1: New bypass road skirting Batumi constructed
1.1 Complete payment for compensation and relocation of affected people with no dispute or complaint by June 2017.
1.2 Complete bid evaluation for civil works contract by July 2017.
1.3 Award civil works contract by August 2017.
1.4 Recruit supervision consultants by September 2017.
1.5 Complete payment for compensation and relocation of all affected people by August 2019.
1.6 Complete civil works by December 2021.

Output 2: Routine and periodic maintenance carried out using PBM contracts
2.1 Recruit PBM design consultants by December 2019.
2.2 Complete engineering design and procurement packaging by April 2020.
2.3 Award PBM contracts by June 2020.
2.4 Recruit supervision consultants by June 2020.
2.5 Complete PBM contracts by June 2023.

Output 3: Detailed engineering design, EIA, detailed LARP, and bidding documents for Batumi Bypass–Sarpi road endorsed
3.1 Approve variation to consultant’s contract to change financing source for Batumi Bypass–Sarpi activity 2 by June 2019.

Output 4: New Poti Bridge and approach roads, and new Bakurtsikhe–Tsnori road constructed
4.1 Complete payment for compensation and relocation of affected people with no dispute or complaint by March 2020.
4.2 Complete bid evaluation for civil works contract for Poti Bridge by February 2020 and for Bakurtsikhe–Tsnori Road by March 2020.
4.3 Recruit supervision consultants by April 2020.
4.4 Award civil works contracts by April 2020.
4.5 Complete payment for compensation and relocation of all affected people by May 2020.
4.6 Complete civil works by June 2022.

Inputs
ADB: €108,190,000 ($114.0 million equivalent [loan])
AIIB: $114.0 million (loan)
Government: $87.2 million

Assumptions for Partner Financing
Not applicable.

ADB = Asian Development Bank, AIIB = Asian Infrastructure Investment Bank, EIA = environmental impact assessment, EWH = East–West Highway, km = kilometer, m = meter, LARP = land acquisition and resettlement plan, PBM = performance-based maintenance.
LIST OF LINKED DOCUMENTS
http://www.adb.org/Documents/MC/?id=50064-001-3

1. Performance Overview
2. Project Administration Manual
3. Reallocation of Proceeds
4. Economic and Financial Analysis
5. Memorandum on Safeguards Classification
6. Resettlement Plan: Bakurtsikhe–Tsnori Road Section
8. Map: Batumi Bypass Road Project
9. A Checklist for Preliminary Climate Risk Screening

Supplementary Documents
10. Draft Initial Environmental Examination: Bakurtsikhe–Tsnori Road Section Project
11. Land Acquisition and Resettlement Plan: Lot 2 - Stage 1: Poti–Grigoleti Bridge Over Rioni River and Access Roads
12. Risk Assessment and Risk Management Plan
13. Country Economic Indicators
14. Summary Poverty Reduction and Social Strategy
15. Contribution to the ADB Results Framework