

Environmental and Social Data Sheet

Overview

Project Name:	E-60 ALGETI - SADAKHLO SECTION (Lot 3 and 4)
Project Number:	2018-0246 (FL 20170159)
Country:	GEORGIA
Project Description:	<p>The sub-project consists of the construction of the new carriageway between Algeti to Sadakhlo to 2 x 2 dual carriageway standard for a total length of approximately 30.0km (Lot 3 and Lot 4) and associated access roads connecting to existing E-60 extended TEN-T road. The sub-project consists of the following sections:</p> <ul style="list-style-type: none">- Lot 3: Algeti to Araflo (approximately 13.0km)- Lot 4: Araflo to Sadakhlo (approximately 16.3km) <p>This section is located on the main road connecting Georgia to Azerbaijan. Rustavi-Red Bridge is part of the E-60 highway.</p>
EIA required:	YES
Project included in Carbon Footprint Exercise ¹ :	Yes
(details for projects included are provided in section: "EIB Carbon Footprint Exercise")	

Environmental and Social Assessment

Environmental Assessment

Main project characteristics

The sub-project consists of the construction of a new four-lane highway. The project road corridor will pass through two self-governing units: City of Rustavi and Municipality of Marneuli starting from Sadakhlo Road Junction to the East of Azizkedi village to the Sadakhlo Border Checkpoint.

Environmental Legislation

Georgian laws and procedures encompass in substance the principles of the relevant EU Directives, such as the Environmental Impact Assessment (EIA) Directive 2011/92/EU and Strategic Environmental Assessment (SEA) Directive 2001/42/EC.

The Competent Authority for issuing an environmental approval of a project is the Ministry of Environment Protection and Agriculture (MoEPA).

The Ministry of Economy and Sustainable Development (MoESD) is responsible for carrying out the review of technical documentation (including conclusion of independent experts) and

¹ Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO₂e/year absolute (gross) or 20,000 tonnes CO₂e/year relative (net) – both increases and savings.

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issuing Permits on Construction for projects, as well as for supervision over constructing activities and for arranging Acceptance Commission after completion of construction.

The Roads Department (RD) of the Ministry of Regional Development and Infrastructure (MRDI) is responsible for the procurement of design and EIA studies, as well as of works for construction and rehabilitation of roads and is responsible for ensuring compliance with the Georgian legislation and environmental and social requirements of the relevant IFIs.

The sub-project falls under the Category A procedure as stipulated by the Georgian Environmental Code, which requires EIA be carried out.

EIA procedure

RD carried out a feasibility study financed under a World Bank project for the Rustavi – Redbridge and Algeti – Sadakhlo sections (comprising four lots Lot 1, Lot 2, Lot 3 and Lot 4) of approximately 65km in 2017.

During the Project feasibility phase a number of alignments were considered (Widening the existing road, and three new alignments) and the result of the feasibility report was a draft final corridor, which the detailed design used as a basis for the final road alignment (horizontal and vertical). Widening of existing road option was excluded, as it would pose difficult challenges to satisfy design standard requirements and gaps in socio / economic benefits. Out of the remaining three options, the EIA recommended the option for which the mitigation of its negative impacts is technically more feasible and financially more affordable than for the other two alternatives.

An Environmental Impact Assessment (EIA) Report for this sub-project has been prepared (July 2019), including public consultations and accompanying management plans of a Resettlement Action Plan (RAP), Stakeholder Engagement Plan (SEP) and an Environmental and Social Management Plan (ESMP). Final EIA has been approved by the by the Competent Authority, MoEPA, and they issued the Environmental Permits on 24 October 2019.

Environmental Impact

During the EIA, a number of factors were taken into account to determine the final alignment; they included the consideration of potential resettlement issues and social aspects such as access and noise. An ESMP has been included in the EIA. Table 1 below provides a summary of the key impacts and the mitigation measures during construction and operation:

Expected impact	Mitigation measures
Emission of harmful substances during construction activities	<ul style="list-style-type: none"> Equipping the emission stationery facilities with relevant air-cleaning
Noise pollution during construction	<ul style="list-style-type: none"> Making noise-protection barriers if necessary between the noise sources and the receptors
Loss of topsoil and degradation of sites	<ul style="list-style-type: none"> Topsoil stripping and piling separately from the lower soil layer and other materials Water-diversion channels will be made along the perimeter of the topsoil fill and will be protected against scattering by the wind blow
Damage or harm to animals	<ul style="list-style-type: none"> Observing the borders of the working area. Bordering the ditches to prevent the animals from falling into them and getting harmed. Efficient use of the mitigation measures for the pollution of the environment (air, water, soil).

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Erosion and deterioration of aesthetic view	<ul style="list-style-type: none"> • The topsoil and subsoil to be placed far from the surface water objects. • Sites will be immediately filled and compacted and the surfaces and slopes will be graded. If needed, the slope stabilization techniques will be used. • Site restoration by scattering the topsoil from above and creating the conditions favourable to restore the vegetation cover.
Habitat fragmentation and impact on cattle-breeding – fragmentation of the driving corridor	<ul style="list-style-type: none"> • Providing overpasses for wild and domestic animals at relevant locations.
Risks of pollution of surface and ground waters and soils	<ul style="list-style-type: none"> • Drainage channels with stone filters to prevent water contamination. • Treatment systems to prevent the propagation of the pollutants in case of emergency spills.
Damage of the attractive shelters for amphibians (small ponds, river coastal zone)	<ul style="list-style-type: none"> • Preserving the ponds formed in the vehicle tire traces in the road during the propagation period of amphibians as long as possible. • Observing the borders of the working zone to avoid damage to additional areas.

Bio-diversity

The study area belongs to the geo-botanical region of Kvemo Kartli Plain, which covers the territory past the city of Tbilisi (Soganlugi), on the both banks of the river Mtkvari. It is located between Trialeti Ridge, Somkhети Ridge and Lori Plateau. The bio-diversity study for the project corridor of Algeti-Sadakhlo sections incorporated three components: study of floristic environment, study of fauna and assessment of their habitats.

The animal species common in the corridor envisaged by the project and in its adjacent area are those typical to the steppes. The number of forest species is quite small as a result of the small forested areas and strong anthropogenic impact.

No territories protected by the national legislation and/or international conventions are identified near the project corridor. Emerald candidate site "Gardabani" is located more than 5,5km east of Sadakhlo interchange. According to the analysis from the EIA, there will be no impact to the Emerald site.

Environmental Management Plan (EMP) includes specific mitigation plans for biodiversity protection (refer to Table 1 for some biodiversity protection measures), and planting of trees to be carried out within the proposed highway corridor in agreement with MoEPA.

Climate change

Climate adaptation measures were examined in the EIA and the known likely impacts are Changes in Temperature, Changes in Precipitation and Changes in Humidity.

The Promoter in their climate risk screening identified the final project climate risk rating as "Low risk", with the risks of flooding, snow loading and landslide identified as "low risk" from climate change perspective.

Marneuli Municipality is located in the humid subtropical climatic zone. The climate in the most part of the territory is a warm steppe one with hot summers with maximum precipitations

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in May and minimum in December. Annual average air temperature is +11.4°C, average monthly temperature of the coldest month is -0.6°C in January, the hottest month is August with temperatures of +22.4°C.

Relative humidity has increased by 2% on the whole territory of the country in period 1986-2010, and is expected to continue to increase in the period 2021-2050². Sustainable trends of the increase of precipitation are basically observed in West Georgia, especially in its mountain areas. This trend is expected to continue until 2050 and after that a decrease is expected, except for some areas (Batumi, Pskhu and Mta – Sabueti).

Marneuli area is located in the active seismic zone. Appropriate measures have already been incorporated in the design in compliance with the requirements stipulated in the applicable Georgian construction standard Seismic Resistant Construction.

Specific climate change adaptation measures were included in the design for earthworks, bridges and drainage arrangements to cater for climate change. Costs attributed to climate adaptation were estimated at 0.40% of the overall cost (for both Lot 3 and 4).

EIB Carbon Footprint Exercise

The project is included on the following basis:

- Estimated annual third party greenhouse emissions (vehicular use, from existing and generated demand) from the use of the project in a standard year of operation:
 - Forecast absolute (gross) emissions are 21,000 tonnes of CO₂ equivalent per year; and
 - Forecast emissions savings are 1,000 tonnes of CO₂ equivalent per year.
- The project boundaries are:
 - “Baseline case”, the existing network comprising 71 km of national network from Rustavi to Red Bridge and Sadakhlo; and
 - “With project case”, the proposed new highway between Rustavi and Sadakhlo and Red Bridge totalling 62 km, plus the existing network as defined above.
- The baseline is the forecast third party emissions, in the absence of the project, from the existing network within the project boundary defined above. The emissions forecasts are based on Services’ assumptions on traffic, traffic growth/generation, speed flow, infrastructure capacity and fuel consumption.

The assessment for this operation was performed in combination with the operation 20180102 Rustavi to Red Bridge, due to the network effects, and the aggregate emissions forecast then prorated by respective value, 35% for this operation and 65% for the other operation.

² Promoter’s assessment based on observations of 33 stations of hydro meteorological network of Georgia, in the period of 1961-2010 and the forecast scenarios for 2021-2050 and 2071-2100 using regional climate model RegCM454.

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For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

Social Assessment

A Resettlement Policy Framework (RPF) was prepared in July 2018 for this sub-project (<http://www.georoad.ge/?lang=eng&act=project&func=menu&uid=1538479173>). The main adverse social impact is related to involuntary resettlement and therefore following the RPF, a RAP has been prepared (June 2019) in accordance with the Policy on Involuntary Displacement of the WB. The approach adopted and the standards applied are in line with the EIB's standards for involuntary resettlement.

The proposed road section is expected to affect approximately 239 ha of land from 932 plots.

Type of land	Number of land plots
Agricultural – Type A1	70
Agricultural - Type A2	107
Agricultural - Type A3	368
Residential – Type R1	93
(R2) Residential – Type R2	9
Commercial – Type C1	13
State land unused	110
State lands used by private persons	162

The sub-project has impact on 13 businesses. The sub-project has impact on 540 households, of which 368 been attributed to the severely affected category and with 17 losing their residential houses and are subject to physical relocation.

RAP implementation has not started and will be subject to the approval from the RD. Land acquisition and resettlement tasks under the project will be subject to monitoring. Internal monitoring is the responsibility of RD and will be carried out routinely.

In accordance with national law on labour standards and International Labour Organisation (ILO) obligations ratified by Georgia. (Georgia ratified all ILO fundamental conventions), the works contracts will comply with ILO core labour standards. Contractors shall ensure occupational and community health & safety as part of their works contracts.

Gender and Minorities Impacts

Issues linked to gender, ethnic and religious minorities have not been identified within the Project's impact zone. The civil works contracts will include provisions to encourage employment of women during implementation. Additionally, women headed households have been considered as vulnerable and special assistance was provided in the RAP entitlements.

Public Consultation and Stakeholder Engagement

Three public consultations were carried out as required by Georgian Legislation. The Consultant in-charge of the preparation of EIA carried out the initial (first) public hearing at the scoping stage on 3-4 May 2018. The main aim of this hearing was to communicate the goals and objectives of the planned project and learn about public views and expectations in respect of the project. The public had the opportunity to submit comments/remarks on the scoping report to the MoEPA within 15 working days after the publication of the report.

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On 18 May 2018, an hour-long transmission was broadcasted from “Radio Marneuli” station. The broadcast was totally dedicated to the project discussion and radio listeners were given information about the essence and goals of the project. The technical, environmental and social aspects of the project were considered thoroughly at both the regional and country levels.

The competent authority (MoEPA) carried out the second and third public hearing. The second public hearing was carried out after the scoping report was finalised by RD and submitted to the competent authority. The hearing took place on the 16 October 2018 at the Administrative Building of Marneuli Municipality. The main aim of the second hearing was to discuss the precise scope of the report.

The third public hearing was carried out on 30 July 2019 by the competent authority to discuss the final EIA document. The public had the opportunity to submit comments/remarks on the final EIA document to the MoEPA within 40 working days after the publication of the report.

Other Environmental and Social Aspects

The Ministry of Culture, Monument Protection and Sports will have responsibility on supervision of the construction activities in order to protect archaeological heritage.

Conclusions and Recommendations

The sub-project is expected to have limited negative environmental impacts during construction and operation. The residual impact after mitigating measures is expected to be limited and is adequately addressed in the project’s management plans included in the EIA and RAP.

Prior to disbursement against this allocation, the promoter shall be required to meet the disbursement conditions agreed under the GTC II Framework Loan Finance Contract (conditions can be accessed through: <https://www.eib.org/attachments/registers/87025219.pdf>). In addition, the following specific conditions will apply for this specific sub-project.

Before first disbursement the Promoter shall provide to the Bank the following:

- (a) Satisfactory evidence of approval of the RAP by the competent authority;
- (b) Satisfactory evidence of implementation of the RAP (confirmation that at least 50% of the land was compensated and is available to contractor);
- (c) Evidence that all impact management measures identified in the ESMP and measures on occupational and community health & safety have been incorporated into the construction and supervision contracts;
- (d) Evidence that the Grievance Mechanism for the sub-project is operational;
- (e) Confirmation that the PIU and supervision teams includes environmental and social experts.

Before each disbursement the Promoter shall provide to the Bank the following:

- (a) Satisfactory evidence of implementation of the RAP (confirmation that all the land that will be made available to contractor has been compensated for).

The Promoter shall undertake to submit to the Bank the following documents:

1. Evidence that the implementation of RAP and ESMP, as agreed with the Bank, is in accordance with its respective schedules.
2. Report on the status of the RAP implementation, including (any unexpected events and).

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3. Evidence that the Grievance Mechanism for the sub-project is operational.
4. Confirmation that the PIU and supervision teams includes environmental and social experts.
5. Present mid and end of term evaluation of RAP(s) implementation prepared by a third party.

The Promoter shall submit the documents corresponding to Undertakings, points 1) to 5) above on, at least, a 6-monthly basis.

Under the conditions indicated above, the project is acceptable for EIB financing from an environmental and social perspective.