

Environmental and Social Data Sheet

Overview

Project Name:	E-60 RUSTAVI - RED BRIDGE SECTION (Lot 1 and 2)
Project Number:	2018-0102 (FL 20170159)
Country:	GEORGIA
Project Description:	<p>The sub-project consists of the construction of the new carriageway between Rustavi and Red Bridge to 2 x 2 dual carriageway standard for a total length of approximately 32.0km (Lot 1 and Lot 2) and associated access roads connecting to existing E-60 extended TEN-T road. The sub-project consists of the following lots:</p> <ul style="list-style-type: none">- Lot 1: Rustavi to Algeti (approximately 21.0 km)- Lot 2: Algeti to Red Bridge (approximately 10.9 km) <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 from the city of Rustavi to Red Bridge (Azerbaijan border). The project corridor will cross the territories of two self-governing units: the city of Rustavi and Marneuli Municipality. This territory covers Kvemo Kratli Plain, which is an extreme north-western part of the Kura-Araxes vast Plain. The Plain is bordered by the slopes of Trialeti and Lokhi Ridges, Shua Khrami mountain group and Iori Plateau. The corridor and its adjoining areas mostly cover landscapes of arid semi-desert plains and agricultural landscapes.

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).

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.

Luxembourg, 27th January 2021

The Ministry of Economy and Sustainable Development (MoESD) is responsible for carrying out the review of technical documentation (including conclusion of independent experts) and 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 18 November 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 to be made along the perimeter of the topsoil fill and to 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;

Luxembourg, 27th January 2021

	<ul style="list-style-type: none"> • Efficient use of the mitigation measures for the pollution of the environment (air, water, soil).
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 to be immediately filled and compacted and the surfaces and slopes will be graded. If needed, the slope stabilization techniques to 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

During construction, significant impact on the vegetation cover is expected. Site clearance carried out for the project will imply removal of vegetation, including cutting of trees for the road construction needs. It is expected not to cause functional damage to the ecosystem, and is expected not to affect any critical habitats.

The design corridor crosses or comes close some important rivers of East Georgia. These rivers are the Mtkvari, Khrami and Debeda. The risks of impact when working near the surface water objects are mostly associated with unforeseen events, such as negligence during the earthworks, improper waste management, construction of camps, spills of products due to the faulty techniques and vehicles, etc. To mitigate these risks the sources of wastewaters will be equipped with relevant treatment systems and no untreated wastewater will be discharged into the rivers.

The following important sites are found near the design corridor:

- National protected area, Gardabani Managed Reserve (MR);
- “Gardabani”, a candidate site of Emerald Network protected by international conventions. Gardabani MR is found within the borders of an Emerald Network candidate site.

Gardabani Managed Reserve:

It was created in 1957 as a state forest-hunting area of Gardabani and in 1996, it was given the status of a managed reserve. The area of Gardabani MR is 3,484 ha and is located on the territories of Gardabani and Marneuli Municipalities, 39 km from Tbilisi. Gardabani Managed Reserve was established to preserve and improve the state of the forest plantations in the area and protect the local fauna species. The main riches of flora in the Managed Reserve are floodplain forests with abele, black poplar, white willow, high willow, floodplain oak, floodplain elm and Plot’s Elm as the principal timber plants. The understory is presented by hawthorn, branched tamarisk and sea-buckthorn.

Luxembourg, 27th January 2021

“Gardabani”, a candidate site of Emerald Network:

This site covers 3,734 ha and the types of habitats found on the site are humid or wet oligotrophic meadow - characterized by poor food of boreal, nemoral and steppe zones and frequent peat soils. It covers a meadow with dominant purple moor-grass (*Molinia caerulea*) and containing rushes (*Juncus squarrosus*), Matgrass (*Nardus stricta*) and scirpus (*Scirpus cespitosus*). Common plant communities are *Molinion caeruleae*, *Juncion squarrosi*, *Juncum molinion*, *Juncion acutiflori*.

The design road does not cross the boundary of the protected area, but runs near its final section (the shortest distance between them is 135 m). The corridor also comes near the candidate site of Emerald Network along section km 10-11 (distance of 1.7 km). Therefore, as a result of the project implementation, no direct impact on the protected areas is expected. However, because of the close proximity, additional assessments were undertaken as part of the EIA, to consider the frequency of occurrence of the habitats and species common in the protected areas, as well as such indirect impacts, as noise, vibration and emission propagation towards the protected area. Based on the assessment, the habitat typical to the candidate site of the Emerald Network, the humid or wet oligotrophic meadow, was not identified at any project location and no flora or fauna species protected under the Bern Convention was identified either.

The 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 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.

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.

Luxembourg, 27th January 2021

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 0.51% of the overall cost (for both Lot 1 and 2).

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 39,000 tonnes of CO₂ equivalent per year; and
 - Forecast emissions savings are 3,000 tonnes of CO₂ equivalent per year.
- The project boundaries are:
 - “Baseline case”, the existing national network comprising 71 km between Rustavi, Redbridge and Sadkhlo; and
 - “With project case”, the proposed new highway between Rustavi, Redbridge and Sadakhlo totalling 62.0 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 20180246, Algeti to Sadakhlo, due to the network effects, and the aggregate emissions forecast then prorated by value, 65% for this operation and 35% for the other operation.

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 354 ha of land from 456 plots.

Type of land	Number of land plots
(A1) Agricultural - Category 1	9
(A2) Agricultural - Category 2	150
(R1) Residential - Category 1	1
(R2) Residential - Category 2	3
(R3) Residential - Category 3	7
(C1) Commercial – Category 1	19
(C2) Commercial – Category 2	9

Luxembourg, 27th January 2021

State lands used by private persons	120
State lands, unused	138

The sub-project has impact on 23 businesses. Overall, 215 households (879 persons) are affected by the project: 117 directly, losing their land plots.

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.

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 hearings. 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 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 22-23 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.

Luxembourg, 27th January 2021

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);
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.