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Environmental and Social Data Sheet

Overview

Project Name:	*GEORGIA-ZEMO SAMGORI IRRIGATION PROJECT*
Project Number:	*2020-0371*
Country:	*Georgia*
Project Description:	*The project entails the modernisation of the Zemo Samgori Irrigation Scheme in the East Tbilisi region of Georgia to restore irrigation services and to provide the basis for agricultural development in the region.*
EIA required:	*Screened in by EIB. ESIA report available and to be published*

Project included in Carbon Footprint Exercise[1]: yes

(Details for projects included are provided in section: "EIB Carbon Footprint Exercise")

Environmental and Social Assessment

The Zemo-Samgori Irrigation System (ZSIS) is a large irrigation scheme in the east of Tbilisi (capital of Georgia), located in the sub-basin of the Lori river. It was developed in the 1950s and 1960s and was still in use until 1991. However, in the post-soviet era (after the split in 1991) this irrigation system deteriorated progressively. From a peak in use of 50 000 ha, in 2020 and 2021, only 6 404 ha and 5 320 ha respectively were irrigated. The project has identified that 19 129 ha are the most suitable for irrigation, with a net potential irrigated area of 17 216 ha.

The rehabilitation and modernization of the selected Zemo-Samgori irrigation scheme, 'the Project', consists of the design, construction and supervision for the modernisation of main, secondary and tertiary canals. Associated on-farm irrigation systems and crops will be developed by the farmers. By modernizing current System, agricultural production sector will be more adapted to the changing climate while addressing food insecurity and rural poverty in the region in a sustainable manner

The Project will enable water savings per hectare of 68% (from 22 305 m3/ha/y to a weighted value of 7 195 under the assumption of a 60% adoption of on-farm modern technologies), while at full potential the absolute water savings will be 13% less than current abstractions. The System will therefore become more resilient to Climate Change, which has been estimated to impact water availability in the basin by -8%. In addition, Water Productivity will be boosted from current 0.30 kg output/ m^3 to future 1.61 kg/m^3. The number of farm plots under irrigation will increase from current 1 836 to potentially 11 441. Through increases in agricultural production, rural livelihoods will be improved.

[1] Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB 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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Environmental Assessment

At present, the environmental permitting procedure in Georgia is set out in the Environmental Assessment Code adopted on June 1, 2017. The Code was elaborated aligning the national EIA procedures with the EU directives. The code incorporates the concepts of screening, scoping and strategic environmental impact assessment.

According to the Code, rehabilitation of irrigation systems, as well as installation of aqueducts of 5 km fall in Annex II and is subject of screening to decide necessity of conduction of EIA and issuing environmental permit.

A complete ESIA according to EIB E&S Policies and international standards has been produced and will be published by EIB.

Regarding legal Framework, in addition to International and EU Environmental Frameworks the Project shall be compliant with:

- Environmental National Framework: Law of Georgia on Protection of Environment (1986, last amended in 2021); Law on Water (1997, last amended in 2020); Law on Water Resources Management; Environmental Assessment Code of Georgia (adopted in 2017, last amended in 2020); Law on Soil Protection.

The conclusion of the ESIA undertaken in 2022 is that with appropriate mitigation in place through a Project Environmental and Social Management Plan (ESMP), the majority of the adverse effects are anticipated to be reduced from Minor Adverse to Negligible and are, for the most part, temporary i.e., occurring for the period of the construction works only.

During operation, the following beneficial effects are predicted: improvement in food security, employment opportunities, improvement of livelihoods, health improvements, water savings to face climate change and GHG savings with regards current situation of 37 kT CO_2eq per year.

The impact on Biodiversity and Habitats are considered to be negligible, due to the fact that the Project area are disturbed or modified habitats (e.g. cultivated arable land, grazed land). Nevertheless, it will be required more detailed assessment and development of a biodiversity mitigation strategy during the detailed design stage.

Regarding the Climate Risk Assessment, the major risks have been detected in flood risk (high), and its mitigation elements will be included in the detailed designs of the potentially most affected sub-components of the Project (Paldo Headworks rehabilitation). Decrease in precipitation, snow and water availability have been assessed as moderate risks and will be mitigated by the whole design, which focuses on water savings to tackle the lower water availability.

With regards transboundary effects of the water uses, the Project is an ongoing scheme that requires rehabilitation and will produce water savings and target efficient use of fertilizers as well as drainage rehabilitation. It is assessed that it will not affect adversely the quality or quantity of water flows downstream into riparian countries. Nevertheless, a monitoring plan will be requested to confirm yearly this provision.

The Project is Paris aligned and a supported activity under EIB Climate Road Map (*Rural infrastructure (e.g. modernisation of irrigation schemes) and machinery promoting resource efficiency, waste minimisation and/or low/neutral carbon intensity).*

The counterparty is the Ministry of Environmental Protection and Agriculture (MEPA) and as a public authority is not under the scope of the PATH framework.

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EIB Carbon Footprint Exercise

Estimated annual emissions of Project in a standard year of operation: absolute (gross) of -10 and relative (net) of -38 kT CO_2eq/year. Therefore, estimated emissions savings, using EIB carbon footprint methodology and FAO EXACT tool, are 38 k tonnes of CO_2 eq per year. The main items to contribute to this positive environmental impact come from changes in land use, improvements in water management, plantation of orchards and decrease (relative and absolute) in fertilizer needs, thanks to drip/ sprinkler irrigation and fertigation optimal techniques.

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

The Project is not likely to trigger any physical displacement and limited economic displacement (mainly temporary, during the construction phase). The promoter will update the Resettlement Policy Framework available at present for the Project. When triggered, the promoter will also prepare Resettlement documents in line with the RPF and EIB standards.

The ESIA has identified the monuments of cultural interest in the vicinity of the Project area. The ESIA did not identified negative impacts on Indigenous people or ethnic minorities in the Project area.

The improved irrigation conditions might lead small landowners to sell their properties incentivized by the increased land prices and confronted by entry barriers for on-farm irrigation investments. To mitigate this risk, several measures have been considered, among others: awareness raising of opportunities arising from the rehabilitated irrigation system and livelihood restoration plan (or equivalent).

A Labour Management Procedure (LMP) will be prepared by the promoter to facilitate planning and implementation of the Project in terms of working conditions. It will be prepared in line with national and international labour standards (ILO), and EIB requirements. Conditions related to labour rights, working conditions, code of conduct inclusive of provisions to minimise any potential for gender-based violence and harassment (GBVH), and workers' accommodation in line with EIB's standards, will be integrated in bidding documents and in the contracts for the implementation of the Project.

Environmental and Social Management Plans will be prepared and implemented by the work contractors.

Public Consultation and Stakeholder Engagement

The promoter is in the process of updating a Stakeholder Engagement Plan; it will include as well the grievance mechanism to fulfil EIB standard 2 requirements.

Other Environmental and Social Aspects

The MEPA (Minister of Environmental Protection and Agriculture, who is also the promoter of the Project) is a first-time promoter for the EIB. However, the MEPA has long-term experience in implementing internationally financed Projects in the areas of irrigation rehabilitation. The Project Implementation Unit will be supported by permanent technical assistance to be financed by the loan and a grant component.

The promoter MEPA has previous experience in the implementation of environmental risks and mitigation actions. The Project Implement Unit has already experience with similar Projects in the same sector and in the application of international good practices as well as other IFIs

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Environmental and social standards. The Rural Development Agency and the Environmental Protection Agency are institutions within MEPA scope. Promoter's capacities appear acceptable.

Conclusions and Recommendations

Overall the environmental and social impact of the Project is expected to be positive.

The identified adverse effects are anticipated to be for the most part, temporary and limited to the period of the construction works only. The institutional capacity of the promoter - with the support of a TA - to manage the technical, social, and environmental issues is expected to be adequate. Therefore, subject to conditions mentioned below, the Project is acceptable to the Bank in environmental and social terms.

Conditions before first disbursement:

- A quality and quantity Monitoring Plan (design of a monitoring network) shall be drafted to satisfaction of the Bank, to assure that the ZSIS will comply with the quality and quantity requirements for irrigation and that conditions for transboundary riparian notification, as per WorldBank Note 7.50 are monitored and respected, for which the Promoter will remain responsible.

Conditions before subsequent disbursements:

- Development of a more detailed assessment and development of a biodiversity mitigation strategy during the detailed design stage. Adoption of ESMP, RPF and SEP and grievance mechanism, endorsed by competent authorities. A Labour Management procedure as well as a dedicated Gender Assessment to be prepared and endorsed by competent authorities. The mitigation measures listed in the current ESIA and its further updates, are included by the Promoter in the final designs and the Promoter implements and operates the Project in compliance with EIB Environmental and Social Standards and ILO core labour standards, and according to the Labour management procedures.

- Decision by the Environment Authorities on the need for an Environmental permit (screening).

- A livelihood restoration plan for the vulnerable householders.

Undertaking:

- To fulfil the Monitoring Plan with at least a water balance per year, in which it is certified by a third party and to satisfaction of the Bank, that the downstream water availability has not diminished, in quality and quantity, with regards the baseline scenario. The Promoter will remain responsible for riparian obligations as per International accepted standards (World Bank Operational Policy 7.50).
- As part of each allocation request, the promoter will ensure that the following requirements are fulfilled:

  - ✓ Required Environmental Approvals by the competent authorities.
  - ✓ For each sub-project and when applicable, a Resettlement Action Plan and Stakeholder Engagement Plans line with EIB environmental and social standards must be submitted to the satisfaction of the Bank.

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ABBREVIATIONS

CA	Contracting Authorities
EO	Economic Operators
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
FIRR	Financial Internal Rate of Return
GA	Georgian Amelioration
GoG	Government of Georgia
GtP	Guide to procurement for projects financed by the EIB
LEPL	Legal Entities of Public Law
LMC	Lower Main Canal
LMMC	Lilo Martkopi Main Canal
MEPA	Ministry of Environmental Protection and Agriculture
OJEU	Official Journal of the European Union
PMU	Project Management Unit
POM	Project Operational Manual
PPP	Public Private Partnership
RBMP	River Basin Management Plan
RPF	Resettlement Policy Framework
SEP	Stakeholders Engagement Plan
SPA	State Procurement Agency
UMC	Upper Main Canal
WMO	World Meteorological Organisation
WUA	Water Users Association
ZSIS	Zemo Samgori Irrigation System