Ministry of Environmental Protection and Agriculture
National Agency of Public Registry

Georgia Resilient Agriculture, Irrigation and Land Project

MINISTRY OF ENVIRONMENTAL PROTECTION
AND AGRICULTURE OF GEORGIA

EVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

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Contents

LIST OF ACRONYMS & ABBREVIATIONS

APA	Agency of Protected Areas
CERC	Contingent Emergency Response Component
DGA	Digital Governance Agency
EIA	Environmental Impact Assessment
ESHS	Environmental, Social, Heath, and Safety
ESIA	Environmental and Social Impact Assessment
ESF	Environmental and Social Framework of the World Bank
ESMF	Environmental and Social Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standard
EU	European Union
GA	Georgian Amelioration, Limited Liability Company
GDP	Gross Domestic Product
GEL	Georgian Lari
GILMD	Georgia Irrigation and Land Market Development
GRAIL	Georgia Resilient Agriculture, Irrigation, and Land
LEPL	Legal Entity of Public Law
MEPA	Ministry of Environmental Protection and Agriculture of Georgia
MILHSA	Ministry of Internally Displaced Persons, Labor, Health, and Social Affairs
MoF	Ministry of Finance of Georgia
MoJ	Ministry of Justice
NACHP	National Agency for Culture Heritage Preservation
NAMR	National Agency of Mineral Resources
NAPR	National Agency of Public Registry
NFA	National Forestry Agency
PAP	Project Affection Person
PIU	Project Implementation Unit
PRRC	Property Rights Recognition Commission
USD	United States Dollar

1. EXECUTIVE SUMMARY

This Environmental and Social Framework (ESMF) was prepared pursuant to the Loan Agreement for the Georgia Resilient Agriculture and Land Project – P175629 (GRAIL Project). The purpose of the ESMF is to guide project implementation agencies in the management of the environmental and social risks associated with this operation. It provides grounds for screening individual Project investments, identifying expected site-specific environmental and social impacts, prescribing ways of avoiding, minimizing, or mitigating the anticipated negative impacts, and developing plans for monitoring environmental, social, health and safety performance of sub-projects – all in line with the national environmental legislation and the relevant environmental and social standards of the World Bank.

The main environmental and social risks related to the physical footprint of the GRAIL Project are anticipated during modernization of selected irrigation schemes.

Negative impacts that may occur during construction phase include insignificant damage to transformed ecosystems due to vegetation clearance; noise, vibration, and emissions from the operation of construction machinery and vehicles; generation of moderate amounts of construction waste; generation of spoil from earth works and organic waste from cleaning of the existing canals; release of construction runoff; damage to landscapes and morphologic transformation of river gorges due to sourcing of sand and gravel; damage to unknown cultural heritage in case of chance finds in the course of earth works; nuisance to the affected communities and damage to their health due to poor construction practice and improper disposal of waste; occupational health and safety accidents and unfair treatment of workforce due to poor management of labor and worksites; delayed or unfair compensation of the affected owners and land and property affected by the Project implementation.

Impacts expected at the operation phase are predominantly positive, including improved delivery of irrigation and drainage services to farmers and resulting economic benefits; improved institutional organization of water users and their enhanced participation in the operation and management of irrigation / drainage infrastructure; and enhanced resilience of irrigation/drainage service delivery and agricultural practices to the impacts of climate change. At the same time, environmental pollution from pesticide use stimulated by improved irrigation/drainage service delivery, damage to aquatic ecosystems from disorganized water intake/discharge, negative impact of accidentally or systemically deteriorated irrigation water quality, soil erosion, soil salinization and water logging due to poor irrigation practice as well as increased competition for water use due to restored capacity of schemes may not be excluded. Some of the Project beneficiary irrigation schemes depend on the operation of upstream reservoir dams and hence, damage or failure of those dams may affect operation of the downstream dams.

Ministry of Environmental Protection and Agriculture of Georgia (MEPA) will implement physical works financed by the Project and be responsible for the environmental and social outcomes of the Project. Present ESMF provides environmental and social risk screening tools for all types of Project investments, including those that may be undertaken under its

Contingent Emergency Response Component. No high-risk activities and activities included in the exclusion list will be supported by the Project.

For activities eligible for the Project support, depending on the extent of their environmental and social risks, an Environmental and Social Impact Assessment may be undertaken, resulting in the Environmental and Social Impact Assessment Report including Environmental and Social Management Plan, or a stand-alone simplified Environmental and Social Management Plan may suffice.

Negative impact management hierarchy will be applied to addressing the expected environmental and social risk and impacts at all stages of the project cycle. Elements aimed at the decrease of environmental footprint, energy demand, need for water intake, and temporary/permanent impact on private property will be incorporated into the design of schemes' reconstruction. During the construction phase, unnecessary clearance of or damage to vegetation will be avoided; earthworks will be undertaken to ensure preservation and use of topsoil for site reinstatement, and chance find procedures will be applied if need be; purchase of natural construction materials from the external provides will be encouraged and opening of new quarries will be allowed strictly based on the valid licenses, including site reinstatement plans; management of all types of waste will follow the national legislation and waste management plans satisfactory to the World Bank developed by contractors and approved by their supervisors; contractors will be required to have in place and adhere to Code of Conduct, Grievance Redress Mechanism for workers, and develop and implement community liaison plans; occupational health and safety risk assessment will be undertaken at each construction site and contractors will develop and adhere to occupational health and safety management plans; any worksite accident causing significant damage to human or environmental health will be immediately reported to the World Bank, to be followed by Root Cause Analysis and corrective action; restriction of access and/or in the use of property, land take, economic and/or physical displacement caused by the Project implementation will be compensated prior to commencement of works as per Resettlement Action Plans and implementation of these Plans will be reported to the World Bank; the MEPA, National Agency for Public Registry, and other agencies participating in the Project implementation will follow Labor Management Procedures, operate Grievance Redress Mechanism, and implement Stakeholder Engagement Plan developed for the GRAIL Project.

In the operation phase, the MEPA, through the State-owned company Georgian Amelioration, will manage Project beneficiary irrigation and drainage schemes in a robust manner to ensure regulated intake-discharge of water ensuring disciplined payment for services by water users established with consideration of affordability in consultation with the affected parties; cooperate with the National Environmental Agency for obtaining relevant information on the weather forecast, evolving impacts of climate change, water balance within catchment areas, water quality, and other parameters relevant for planning and optimal delivery of irrigation and drainage services; monitor technical condition and safety of reservoir dams upstream of irrigation schemes and close any gaps in their instrumentation that may exist. Also, the MEPA, through its relevant units and subordinated agencies, will raise awareness of, promote, and

stimulate adoption of sustainable agricultural practices aimed at Integrated Pest Management and climate resilience.

Each Environmental and Social Management Plan developed for individual Project investment will include environmental and social monitoring plan specifying parties responsible for monitoring, methodology, timeframe, and indicators to be met. In case monitoring reveals unsatisfactory performance of contractors, remedial actions will be worked out and implemented. Proper application of impact management hierarchy is expected to result in minimal residual negative impacts, mostly in the form of slightly altered transformed habitats.

Present ESMF is disclosed through the web page of the MEPA in Georgian and English languages. It will be discussed with national stakeholders, Project beneficiaries, and affected communities and finalized and re-disclosed thereafter.

2. INTRODUCTION

Agriculture is an important sector of Georgia's economy in terms of GDP contribution, employment generation, and foreign exchange earnings. The sector's contribution to the national economy during the last five years on average has been 7.8 percent. In 2020, agriculture was one of the sectors of the economy that was least affected by the COVID-19 pandemic, demonstrating a remarkable level of resilience[12]. Approximately 41 percent of the total population live in rural areas, and the majority of those living in rural areas rely partly on agriculture for their livelihoods. Agriculture provides 19.1 percent of total employment.[13] Although Georgia has been a net importer of agricultural food products, from 2010 to 2020 the value of exports of agricultural food products, especially high value commodities such as wine, hazelnuts, and fruit and vegetables, more than doubled, while imports remained stable. As new export markets are being explored, private investment in processing capacity has started to increase, and various canned, dried, and frozen products have started being exported to the EU, US, and other markets. This development can be expected to present opportunities for those producers who can supply high quality fruits and vegetables that meet international market and food safety standards.

Land and water are finite resources and factors of production on which agricultural production and productivity depend. While agriculture in Georgia is primarily rainfed, irrigation and drainage investments are vital to guard against climatic extremes and are critical for high-value agriculture production. The eastern part of the country, which is subject to frequent droughts, requires the use of irrigation to buffer climatic extremes, while the western part of the country, which is wetter, is confronted with drainage problems. After regaining independence in 1991, Georgia went through a turbulent transition period following the collapse of the Soviet Union that resulted in the deterioration of a large part of its irrigation and drainage infrastructure. This caused a sharp decline in the area of service. The year of 2012 became a turning point, after which the irrigated area started to increase. This has been largely based on the support from donor organizations – predominantly the International Fund for Agricultural Development and the World Bank. Between 2016 and 2020, roughly 125 million GEL were invested in irrigation infrastructure projects. The World Bank Financed Land Market and Irrigation Development (GILMD) Project commenced in 2014 and produced significant deliverables to date. While this operation is still ongoing, the Government of Georgia approached the World Bank with the request for assistance in the preparation and financing of Georgia Resilient Agriculture, Irrigation, and Land (GRAIL) Project which will build on the outcomes of GILMD Project and cover a broader range of policy and infrastructural aspects of Georgia's agricultural sector in the challenging times of global political instability, volatility of markets, issues in food security, and climate change.

Irrigation Strategy for Georgia 2017–2025 sets out the vision to modernize irrigation infrastructure and boost the area of irrigated lands to 200,000 hectares by 2025. Georgia's Nationally Determined Contribution updated in 2022 aims to unconditionally reduce greenhouse gas emissions by 30 percent below 1990 levels by 2030. The main sectors aimed for cutting emissions include energy, industry, agriculture, and water resources management (including for improved food production). In addition, the 2030 Vision outlined in the Climate

Change National Adaptation Plan for Georgia's agriculture sector calls for Climate Smart Agriculture practices in Georgia, ensuring food security, rural poverty elimination, and sustainability of agro-ecosystem services through introduction of the highly effective production methods and management of the climate change-associated risks.

GRAIL Project interventions directly align and aim to support the implementation of all these strategic objectives and goals.

3. PROJECT DESCRIPTION

The Development Objectives of GRAIL Project are to: (1) improve irrigation and drainage services and agricultural production in project areas; (2) strengthen national irrigation and land management institutional capacity; and (3) provide immediate and effective response to an eligible crisis or emergency.

Total Project cost is estimated at the equivalent of 150 million USD, out of which 141 million USD are borrowed from the World Bank and the equivalent of 9 million USD is the counterpart funding from the State budget of Georgia.

The Project consists of four components.

Component 1: Resilient irrigated agriculture (equivalent of 119.8 million USD)

This component contributes to the implementation of high priority investments in irrigation and drainage infrastructure, agriculture support, and institutional strengthening for national irrigation and rural development agencies aligned with the country's agriculture strategy, the irrigation strategy, and the climate change adaptation and mitigation agendas. It finances civil works, goods, equipment, and related services, as well as technical training for agency staff and farmers to boost productivity of irrigated agriculture.

Subcomponent 1.1: Irrigation & drainage infrastructure rehabilitation and modernization

This sub-component covers rehabilitation and modernization of selected irrigation and drainage schemes using a framework approach. The project has short-listed five viable existing irrigation schemes for potential financing including: 1) Tashiskari and 2) Tiriponi schemes in Shida Kartli region, 3) Zeda Arkhi scheme in Kvemo Kartli region, 4) Zemo Alazani scheme in Kakheti region and 5) Narekvavi scheme in Mtskheta-Mtianeti region located in Eastern Georgia. The shortlist also includes potential investments to provide desilting equipment for Narekvavi Reservoir, which supplies irrigation water for the downstream command area of 650 ha of the Narekvavi irrigation scheme. The shortlist also includes consideration of a drainage scheme (Shavgele Massif in Samegrelo-Zemo Svaneti region) located in Western Georgia. The scope of activities under the sub-component will include rehabilitation / modernization of main, secondary, and tertiary canals and drains with all the ancillary structures such as headworks, flow regulating and measurement structures, outlets, bypass, flood protection, installation of water meters, and others. The final selection of the schemes will take place once the preliminary designs are available.

The subcomponent will also finance the preparation of a national Irrigation Master Plan that would be guided by: (a) the provision of a reliable water supply to existing or potential irrigation schemes, including under water scarcity scenarios, (b) technical feasibility of the investments, (c) the economic and financial justification, (c) environmental sustainability, including at a wider basin-scale, (d) social inclusivity, and e) the adaptation to climate change in water stressed areas of Georgia, including drought-prone and flood risk areas.

Subcomponent 1.2: **Irrigated agriculture and value chain development**

This sub-component will finance interventions that focus on (a) increasing agricultural productivity of crops that show potential for farmer incomes, value addition, and resilience, (b) generating climate mitigation benefits, and (c) enhancing access to markets for farmers in project areas. Farm-level support is designed to enable farms in areas where the Project will upgrade irrigation systems to intensify their production and/or switch to more profitable crops. With partial grant financing, farmers will be assisted to purchase technologies for high value crop production (planting materials, post-harvest equipment, etc.) and will be provided with business and market advisory, field demonstrations, technical and business training.

Subcomponent 1.3: Improved performance of irrigation service delivery

The sub-component aims to achieve operational sustainability through reform of the institutional environment for operations, maintenance, and management of irrigation in Georgia. The component will also focus on improving financial sustainability in the irrigation sector through the establishment of a performance-based and service-oriented culture within Georgian Amelioration (GA) at the central level and regional service centers. The main activities to be financed under this component will comprise: (1) comprehensive reform of GA with a focus on the redefinition and decentralization of functions to the lowest practical level; (2) review and redefinition of the irrigation tariff based on substantiated affordability and willingness to pay studies, with a strategically planned and phased rollout; (3) support to farmers to reduce the degree of heat stress, fluctuation in precipitation variability, and soil moisture stress faced in agricultural production in the drought-prone areas of Eastern Georgia; (4) investment in establishing and strengthening the operations of water management organizations at the local level; and (5) establishment of a new Hydrological and Agricultural Informatics Program and a multi-agency center within the Ministry of Environmental Protection and Agriculture (MEPA) with capabilities to use remote sensing tools for monitoring irrigation, agriculture and land management performance.

Component 2: Improved Land Management Capacity (equivalent of 24 million USD)

This component will finance activities aiming at strengthening national land administration and management systems and facilitation of access to and use of geospatial data.

Subcomponent 2.1: **Strengthening of agricultural land management and monitoring**

This sub-component will support creation of a solid foundation for improved land management, agricultural land markets development and land use efficiency through investments in policy and institutional reforms, and capacity building of the key stakeholders (the National Agency for Sustainable Land Management and Land Use Monitoring under the MEPA and the National Agency of State Property under the Ministry of Economy and Sustainable Development). Namely, the sub-component will finance elaboration of (i) National Sustainable Land Management Policy and strategy for its implementation, (ii) National Land Consolidation Policy and strategy for its implementation, and (iii) multi-purpose agricultural land information system.

Subcomponent 2.2: Enhancement of land administration service delivery and building digital governance infrastructure

This sub-component will finance strengthening of the Integrated Property Registration System (IPRS) of the National Agency of Public Registry (NAPR) under the Ministry of Justice, and operationalization of the National Spatial Data Infrastructure. The IPRS, initiated under GILMD Project, will be further enhanced to connect additional stakeholders, and develop new e-services. The NSDI, initiated by NAPR a few years ago, will be brought from piloting status to a production level and progressively connected all producers and users of spatial data. The Component would also provide regulatory and operational support to optimize monitoring of land and real estate markets.

Component 3: Project management (equivalent of 6 million USD)

This component will finance project management, including coordination and technical supervision of the implementation, financial management, procurement, monitoring and evaluation, and progress reporting, relating to Component 1 with a Project Implementation Unit (PIU) under MEPA and a PIU for Component 2 under NAPR, within the Ministry of Justice. These responsibilities include Project management and coordination, procurement, and financial management, monitoring and evaluation, social and environmental standards management and oversight, gender focused activities, communications, and outreach. This component will also finance oversight of detailed engineering designs, and civil works.

Component 4: Contingent Emergency Response (equivalent of 0 million USD)

This component establishes a disaster response contingency funding mechanism that could be triggered in the event of an eligible crisis or emergency, such as a natural disaster involving a formal declaration of a national or regional state of emergency, or a formal request from the Government of Georgia in the wake of a disaster, a health pandemic, or other types of disasters such as armed conflict. In that case, funds from other project components could be reallocated to this component to facilitate rapid financing of a positive list of goods and services related to Components 1 and 2 that would still be relevant to the achievement of the Project Development Objectives.

Project location

Infrastructural investments of the Project are planned for the shortlisted Tashiskari and Tiriponi schemes in Shida Kartli region, Zeda Arkhi scheme in Kvemo Kartli region, Zemo Alazani scheme in Kakheti region and Narekvavi scheme in Mtskheta-Mtianeti region – all located in Eastern Georgia, as well as Shavgele Massif drainage scheme in Samegrelo-Zemo Svaneti region located in Western Georgia. Map 1 shows the location of shortlisted irrigation schemes in Eastern Georgia.

Map 1: Irrigation schemes shortlisted for GRAIL Project Financing

The total command area of irrigation and drainage systems under consideration is 26,887 ha. The schemes were selected based on hydrological, technical, economic, and agricultural parameters.

4. LEGAL FRAMEWORK FOR ENVIRONMENTAL, SOCIAL, AND LAND MANAGEMENT

Georgia's legal framework for environmental, social, health and safety management is based on the Constitution of Georgia. It declares the right of every person to live in a healthy environment and to use natural and cultural resources while carrying responsibility for retaining these resources for future generations. The Constitution also guarantees public access to information, stating that an individual has the right to obtain full, unbiased, and timely information regarding his or her living environment.

Legal framework organized under the Constitution includes national laws, normative acts, presidential orders and governmental decrees, and ministerial orders. In addition, Georgia is a signatory to a number of international treaties and conventions, including those on environmental, social, and labor regulations.

4.1 Environmental Laws and Regulations

The following environmental laws and regulations are relevant for the implementation of GRAIL Project.

Law of Georgia on Environment Protection (reg. #360.000.000.05.001.000.184; 10.12.1996, last amended 2021) The law establishes the main principles of environment protection. It aims to ensure natural environment in the condition that is safe for human health; protect environment from harmful impacts; retain qualitative parameters of environment; harmonize ecologic, economic, and social interests of public; sustainably manage the use of natural resources; and ensure effective operation of integrated system for regulating genetically modified organisms.

> *GRAIL Project will be implemented in the general frames of sustainability, risk reduction, environmental impact assessment, mitigation hierarchy, availability of information, and public participation in decision-making.*

Law on Environmental Assessment Code of Georgia (Reg. #360160000.05.001.018492; 01/06/2017, last amended 2022) is the fundamental environmental law that regulates procedures for conducting environmental impact assessment (EIA) and issuing environmental decisions (permits) for the activities defined by this Law. The Code rules in procedures of environmental screening, scoping, impact assessment, stakeholder consultation, and permitting; identifies parties involved in the EIA procedure and defines their roles. The Code carries two annexes with lists of specific activities. Activities included in Annex I are subject to EIA and environmental permitting without consideration. Activities appearing in Annex II shall undergo screening to allow decision on the need of EIA. Activities not included in any of the annexes do not require environmental due diligence. Project proponent produces screening report for Annex II activities, as well as scoping report and EIA report for activities that require EIA. The designated national authority discloses these reports, solicits stakeholder

feedback, and takes decisions on the report approval. EIA report approval translates into a positive decision which represents an environmental permit to undertake the project under consideration. The decision carries conditions to be met by the project proponent and enforced by the national authority. Law on Environmental Assessment Code covers environmental instruments other than EIA, such as environmental audit, transboundary environmental assessment, and strategic environmental assessment. It does not provide for the development and use of environmental and social framework documents, environmental and social reviews, or self-standing environmental and social management plans.

Need for conducting site-specific EIAs and obtaining environmental decisions as well as the applicable EIA procedures for individual investments under GRAIL Project will be governed by the EIA Code.

Law on Licenses and Permits (reg. #300.310.000.05.001.001.914; 24.06.2005, last amended 2022) defines activities which may result in an increased hazard to human life or health, involve interests of importance to the State or public, or imply consumption of State resources. The Law sets forth a full list of activities such activities and subjects them to obtaining of licenses and permits, and sets out the rules for granting, amending, and abolishing licenses and permits.

GRAIL Project is likely to require a general license for forest use. Also, construction contractors will need to hold resource use licenses if they choose to extract natural construction materials rather than purchase them from external suppliers. Those suppliers will have to hold resource use licenses. Companies specializing in the collection and processing of hazardous waste (including used lubricants, batteries, etc.) shall also hold licenses authorizing given type of activity.

Law on Water (reg. #400.000.000.05.001.000.253; 26.10.1997, last amended 2020) regulates water resources in Georgia, including the use and protection of surface and underground water. It aims to ensure application of the unified State policy to water protection and use; rationale use of water resources for the benefit of present and future generations; provision of clean potable water to the population of the country; conservation and sustainable use of aquatic fauna; protection of the national interests in the field of water protection, use, and international trade; regulation of industrial production of water products; and regulate rights and obligations of physical and legal bodies in water protection and use.

Water intake from a natural water body for to feed schemes rehabilitated under GRAIL Project will require operator of these schemes the preparation of a technical plan for water extraction to be agreed and entered into the database by MEPA.

Law of Georgia on Soil Protection (reg. #370.010.000.05.001.000.080; 12.05.1994, last amended 2021) aims at the preservation of soil integrity and improvement of its fertility; establishment of rights and obligation of land owners, land users, and the State in soil protection and

provision of enabling environment for environmentally friendly farming; prevention of unintended negative impacts of the application of fertilizers; preservation of fertile layer of soil in subalpine and alpine zones of Georgia's mountainous terrain; and coordination of melioration activities for ensuring stabile and high yields from farmed crops.

During conduct of earth works to be undertaken under GRAIL Project, topsoil must be stripped and stored separately from the subsoil and used for site reinstatement after backfilling. The same rule will apply to earth works undertaken in the course of extraction of natural construction materials. Also, the Law will require the Project to manage risks of soil contamination from fuel, lubricants, and other hazardous substances.

Law of on Protection of Atmospheric Air (reg. #420.000.000.05.001.000.595; 22.06.1999, last amended 2022) is intended to provide, retain, and improve air quality that is needed to ensure human health and wellbeing; regulate emissions; support public disclosure of information on the quality of atmospheric air; and facilitate gradual adoption of EU standards of air quality in Georgia.

GRAIL Protect shall be implemented respecting the established concentration thresholds for atmospheric emission of pollutants from point sources of pollution. The Project is unlikely to require obtaining of positive environmental decision for emitting through EIA procedure but may require development of technical plans and inventory reports on the emissions from concrete production plants or other point sources of pollution, should they be operated by contractors, and submission of such reports to the designated unit of MEPA for entry to the national database.

Law of Georgia on the Forest Code of Georgia (reg. #390000000.05.001.019838; 22.05.2020, last amended 2022) regulates legal relations related to forest management. The purpose of this Code is to conserve the biodiversity of the forest of Georgia, and, in order for the environmental, social and economic functions of forest to be performed, preserve and improve its qualitative properties, and the quantitative and qualitative characteristics of forest resources; preserve the original natural and cultural environment of forest, including the vegetation cover and animal world, and natural and cultural property located in forest, and rare and endangered plant species and other assets for future generations and to ensure the harmonized regulation of their interrelation; ensure targeted and rational use of forest resources and other natural potential of forest; determine the main principles of sustainable forest management.

Forest Code will come into action in case civil works under GRAIL Project have to be undertaken in the territory of the State Forest. This will require formal permission for special forest use. The Code requires additional permission for tree cutting in the State Forest, should this be necessary for the Project needs. Finally, the Code carries provision for de-listing of an area from the State Forest if this is imminent due to lack of Project alternatives.

Law of Georgia on the System of Protected Areas (reg. #360.050.000.05.001.000.127; 07.03.1996, last amended 2022) serves conservation and sustainable use of Georgia's unique biodiversity. It establishes categories of protected areas and defines activities that are permissible within the boundaries of each of them.

Each individual investment under GRAIL Project will be screened for proximity to designated protected areas, any possible impacts be identified and avoided or mitigated to the extent possible. No Project Activities will be undertaken in the territory of protected areas.

Law on the Red List and Red Book of Georgia (reg. #360.060.000.05.001.001.297; 06.06.2003, last amended 2021) establishes the rules for compiling and maintaining the Red List and Red Book of Georgia, which identify endangered species of wild animals and plants found in Georgia. This law prohibits causing significant impact on listed species and their habitats and poses restrictions on the extraction of specimen of the protected species from the natural environment.

If civil works under Grail Project requires cutting of trees belonging to Red Listed species, then contractor will be obligated to pay compensation to the Agency of Wildlife in the amount established for various species and various dimensions of specimen.

Law on the Waste Management Code (reg. #360160000.05.001.017608; 26.12.2014, last amended 2022) establishes the legal framework for the management of various types of waste streams. It establishes hierarchy of waste management going from prevention all way down to final disposal. The Code introducing principles of circular economy, promoting waste reuse and recycling.

GRAIL Project implementation will generate various amounts of construction waste, excess material, hazardous waste, and household waste. Following requirements of the Waste Management Code, household waste should be disposed to sanitary landfills through the municipal utility system, construction waste is not accepted by municipal landfills and should be placed in the locations designated by local authorities. Excess material in limited amounts may be accepted by landfills, while the rest is to be disposed like the construction waste. Landfills for hazardous waste are absent in the country and such waste has to be handed over to specialized companies for deactivation, recovery and/or long-term storage. EIA procedure may be applicable to the disposal of construction waste and access material, if done outside the wright-of-way of irrigation/drainage infrastructure. Companies specializing in hazardous waste handling may also require obtaining of positive environmental decision through the EIA procedure for particular types of activities.

Law on Cultural Heritage (reg. #450.030.000.05.001.002.815; 08.05.2007, last amended 2021) provides for the protection of the national cultural assets in the territory of Georgia and beyond. It regulates legal aspects of cultural heritage preservation and use; sets forth principles of classification and registry of cultural heritage; spells our rules of assigning and abolishing the status of cultural heritage; and formulates frames for physical protection of cultural heritage. The Code covers management of chance finds and rules in procedures for authorizing large-scale excavation works by the Ministry of Culture and Sports based on the likelihood of archaeologic finds in the allocated area to be established through the preliminary study.

GRAIL Project will not affect any known monuments of cultural heritage but encountering of chance finds may not be ruled out. Therefore, Chance find procedures provided in the present ESMF in line with the Law on Cultural Heritage, will have to be included in the Contractor's ESMPs and made contractually binding for civil works providers.

4.2 Labor Laws and Regulations

The Constitution of Georgia declares that everyone is free by birth and is equal before law regardless of race, color, language, sex, religion, political and other opinions, national, ethnic, and social belonging, origin, property and title, place of residence. Article 26 of the Constitution of Georgia (1995) considers that labor shall be free, including the right to healthy working conditions.

The following social laws and regulations are applicable to the project:

Law on the Labor Code (reg. # 270000000.04.001.016012; 17.12.2010, last amended 2022) regulates labor and human resource management in Georgia. The Code regulates labor relationships between workers and employees working in Georgia in enterprises, institutions, and organizations, regardless of their ownership or organizational form. It supports the realization of human rights and freedoms through fair reimbursement and the creation of safe and healthy working conditions. The Code sets provisions for employment guarantees, working time, health and safety conditions and so forth. Labor Code defines the minimum age of the employees as 14 years. Employees under 18 years of age are not allowed to undertake certain jobs, as defined in the Code, and there are limits on working hours for workers between 14 and 18.

Provisions of the Labor Code will be applicable to all GRAIL Project workers, including staff of PIUs, providers of civil works, and providers of consultant services.

Law on Occupational Safety (reg. #270000000.04.001.017910; 19.02.2019, last amended 2020) defines basic requirements and general principles of occupational safety for jobs that are dangerous, hard, harmful, and/or hazardous. The law imposes a general obligation on employers to provide employees with a safe and healthy working environment and to inform workers of the potential risks their jobs may present to their health and safety. Measures that

must be taken include but are not limited to training and information campaigns as well as adoption of relevant preventive measures. The law includes requirements for organizing and managing health and safety programs, providing emergency care and services, and responding to accidents. Other requirements include controlling access to hazardous workplaces, providing personal protective equipment at no charge to workers, and medical examinations.

This law has most significant implications for the provision of civil works under Component 1 of GRAIL Project. Contractor companies will be required to assess occupational health and safety risks or worksites, introduce optimal technical solutions and behavioral rules for risk mitigation, provide workers with personal protective equipment and enforce its disciplined use, and undertake other precautionary measures as required by the law.

4.3 Laws and Regulations on Land Acquisition and Resettlement

Georgia has a number of laws to regulate land ownership rights and expropriation processes. The key principle is that compensation of physical assets should be provided at full replacement cost to be determined as per the World Bank standards. The laws also provide for compensation for income losses (e.g., losses resulting from loss of harvest). The laws require consultation with and prior notification of the affected peoples, so that they are fully aware of and participate in the expropriation process.

The following laws of Georgia relate to land use and land acquisition/expropriation, and relevant processes and procedures:

Law on the Rules of Property Expropriation for Imminent Public Needs **(reg. #020.060.040.05.001.000.670; 23.07.1999, last updated 2020)** grants the government the power to seize any property from registered owners by means of expropriation for projects of imminent public necessity. The decision is made only through a Regional Court that must be preceded by the Decree of Minister of Economy and Sustainable Development, justifying the imminent nature of the public necessity. The expropriator has to make every reasonable effort to acquire property by negotiation and is required to value the property at fair market value (at its own expense) before negotiations.

Land expropriation is unlikely under GRAIL Project as it aims to rehabilitate the existing infrastructure and is likely to have minimal additional footprint. However, it cannot be entirely ruled out. Expropriation may come be exercised in an exceptional case when all attempts to reach agreement with a landowner fail and there are no reasonable design alternatives allowing to bypass the subject private property.

Law on the Cost of New Land Cultivation Inflicted by Allocating Agricultural Land for Non-Agricultural Purposes and the Compensation for Damage. # 370.020.000.05.001.000.244; 02.10.1997, last amended 2019) establishes requirements for compensating the affected private landowners and land users for property loss and well as for the loss of future revenues forgone in case agricultural land is converted for non-agricultural use. If agricultural land is taken out of agricultural use, the law requires that a land replacement fee be paid to cover costs of agricultural land of equivalent size and quality, and that the owner/user of such land be fully compensated for damages.

This law may apply if GRAIL Project implementation causes damage to agricultural land or crops during construction works. A Resettlement Action Plan (RAP) will include entitlements for compensating impacts on agricultural land and other assets.

4.4 International Environmental and Social Treaties

Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (ratified in 2000) helps member countries to establish rights of the public (individuals and their associations) to receive environmental information that is held by public authorities. This can include information on the state of the environment, but also on policies or measures taken, or on the state of human health and safety where this can be affected by the state of the environment. In addition, public authorities are obligated, to actively disseminate environmental information in their possession. Upon ratification of the convention, the county took up an obligation to ensure citizens' access to justice in environmental matters. The obligation considers provision of a package of guarantees that allows citizens, including civil society, to ask a national court to check whether a public authority has respected the rights and fulfilled the related legal requirements.

Principles of the Aarhus convention are incorporated into the Law on Environmental Impact Assessment. Both the Convention and the Code provide for the disclosure of EIA reports that may be prepared for individual investments under GRAIL Project, consultation with stakeholders, and incorporation of public feedback into the documents to be extent feasible. Furthermore, stakeholder engagement and participation will not be confined to consultation meetings on the draft EIA documents only but will last throughout Project implementation to ensure recurrent participation of Project-affected people in the decision-making around the Project, including its environmental aspects. This process is formalized in the Stakeholder Engagement Plan (SEP) prepared for the GRAIL Project.

Bern Convention on the Conservation of European Wildlife and Natural Habitats serves for the conservation of endangered species and their habitats, including migratory species. Under the Convention, Georgia is required to establish and maintain "Areas of Special Conservation Interest", also known as Emerald Sites (similar to the EU's Natura 2000 sites), which collectively comprise the Emerald Network. Emerald Network is established to conserve flora and fauna species and their habitats and to support sustainable use of biological resources. The Habitats Directive and the Birds Directive establish requirements for assessing potential adverse effects on Emerald Network sites and require the implementation of measures to reduce potential impacts to acceptable levels, and to offset losses of valuable biodiversity.

GRAIL Project will not undertake activities in the strictly protected natural sites. If rehabilitation of the existing infrastructure requires conduct of works within other zones of protected areas, formal permission will be sought from the Agency of Protected Areas. If Project intervention is made into an Emerald site, MEPA will take a decision on whether assessment of impact on the Emerald Site needs to be carried out to ensure that the planned activities do not conflict with conservation objectives of a given site.

Fundamental, Governance, and Technical Conventions of the International Labor Organization (ILO) cover regulations on employment policy, remuneration, holidays with pay, human resources development, minimum age, freedom of association, etc. as well as those prohibiting forced labor, child labor, and discrimination.

Principles of ILO conventions are incorporated in Georgia's Labor Code and the Law on Labor Safety. Non-discrimination at workplace, prohibition of forced and child labor, regulated working hours, sufficient time for rest during the day, annual, sick, maternity, and other types of eligible leave from work, freedom of association of workers, and other fundamental elements of ILO Conventions will be fully applicable to GRAIL Project workers.

4.5 World Bank's Environmental and Social Standards

As the GRAIL Project will be implemented with financial support of the World Bank, in parallel with the national environmental and social legislative requirements, it shall meet the requirements of the World Bank's Environmental and Social Framework (ESF). ESF comprises 10 ESSs.

ESSs relevant to the GRAIL Project are the following:

ESS1: Assessment and Management of Environmental and Social Risks and Impacts: identification, control, and monitoring of risks and impacts, including identification of applicable requirements and monitoring outcomes.

ESS2: Labour and Working Conditions: labour relations, rules of employment, occupational health and safety, workforce protection, worker grievance mechanism, with specific

requirements for contractor and subcontractor employees.

ESS3: Resource Efficiency and Pollution Prevention and Management: conservation of resources and control/prevention of wastes and pollution.

ESS4: Community Health and Safety: avoidance and control of risks and impacts on communities from project activities and workers, emergencies, security, and other factors.

ESS5: Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement: identification, planning, avoidance/response to the need for physical and/or economic displacement due to project activities, including information disclosure and consultation.

ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources: protection and conservation of biodiversity and habitats, support livelihood of local communities

ESS8: Cultural Heritage: protection of tangible and intangible cultural heritage.

ESS10: Stakeholder Engagement and Information Disclosure: identification and engagement of local and other stakeholders throughout the project life cycle, disclosure of project information, grievance redress mechanism for external stakeholders.

The World Bank classifies proposed projects into four risk categories: low, moderate, substantial, and high. Activities to be undertaken with support of GRAIL Project are assigned substantial environmental and social risk category. This classification is due to sensitive environments and social receptors in the Project area of impact, likelihood of land acquisition and involuntary resettlement, and no prior exposure of the Project implementing agencies to the requirements of ESF. Risk category may be revised during the project life, if the World Bank determines considerable change in circumstances defining the risk level.

Table 2 provides summary of main gaps between the requirements of relevant ESSs and the national legislation of Georgia pertaining the project. In the areas where differences are present, more stringent of the two sets of requirements will apply.

Table 2. Summary of Key Gaps between National and the World Bank requirements in Environmental, Social, Health, and Safety Aspects

ESS &Topic	ESF Requirements	National Requirements and Gaps Thereof	Approach to Gap Bridging
ESS 1: Assessment and Management of Environmental and Social Risks and Impacts			
E&S Assessment	E&S screening is required for all activities to identify required procedures and instruments for E&S management	Procedures and instruments of E&S management are pre-defined for activities listed in Annex I of EIA Code; screening is required for activities listed in Annex II of the EIA Code; no due diligence is required for all the rest types of activities	On top of the national requirement, undertake screening of activities not appearing in Annex I and Annex II lists of EIA Code
	Need for undertaking full-scale ESIA is determined for each individual activity taking into consideration its nature, location, presence of sensitive E&S receptors nearby, complexity of expected impacts and volume of information available about these impacts upfront, challenges for designing adequate mitigation measures, etc.	Need for EIA is ruled for particular types of activities (including their scale) regardless their location, proximity to sensitive receptors and other specific circumstances if they are listed in Annex I of EIA Code; case-by-case decision on the need of EIA are taken for activities listed in Annex II of EIA Code; need for EIA is not evaluated for activities which are not listed in any annexes of EIA Code.	Assess need for full-scale ESIA for each individual activity and undertake it in all cases where expected impacts are not well known upfront, complex, spread beyond immediate area of activity, and may require unconventional mitigation measures tailored for given circumstances.
	ESF sets up equal requirements for the assessment and management of E&S, risks, and impacts.	EIA is expected to cover social aspects of an activity, but emphasis falls on environmental side, while social due diligence requirements are superficial.	Ensure symmetric coverage of E&S aspects of activity in the ESIA process, including a comprehensive social impact assessment.
	Offset of significant residual impacts is required to the extent feasible.	Does not require offset of significant residual impacts.	Explore feasibility of offsets and undertake them based on the feasibility assessment outcome.
	Differentiated approach to vulnerable and disadvantaged people is required at project level for ensuring their meaningful participation in project-related decision-making, designing adjusted impact mitigation measures, and ensuring fair sharing of project benefits.	No differentiated treatment of vulnerable and disadvantaged is required to facilitate meaningful involvement of disadvantaged and vulnerable beyond general national norms and regulations.	Include in the ESIA process mapping of vulnerable and disadvantaged and mainstream their needs into project design and implementation modality.
	Project proponent is required to undertake regular E&S monitoring of works according to	Project proponent is not required to produce a monitoring plan. Monitoring requirements are	Require that ESMPs, including E&S monitoring plan, are developed for

Project monitoring & reporting	the monitoring plan developed by project proponent, ensure that works contractors follow prescribed mitigation measures, and enforce corrective action in case of poor E&S performance. ESMP of the project proponent (included in the ESIA report of self-standing) defines frequency and format of regular reporting on E&S performance. E&S reporting is undertaken by the project proponent and its results are used by the project proponent for adaptive management.	established by the national authority and included in the conditions of environmental decision (permit). No E&S monitoring is undertaken for activities that are not subject to full-scale EIA and environmental permitting. Project proponent does not generate E&S monitoring data but rather uses data from self-monitoring by works contractors. Universal form of E&S monitoring applicable to all operations regulated by environmental decision (permit) is the assessment of residual impacts and submitting its results to the national authority. Project proponent is directly responsible for submitting monitoring reports to the national authority as set forth in the conditions of environmental decision (permit) but does not have clear responsibility for ensuring good E&S performance of contractors and does not apply sanctions to mis-performing contractors. Department of Environmental Supervision under MEPA carries control and enforcement functions.	operations with the expected tangible E&S impacts. Require that project proponent undertakes regular E&S monitoring as set forth in the ESMP and produces monitoring reports. Require that project proponent takes responsibility for E&S performance under the project and uses monitoring outcomes for timely application of corrective actions.
	Third-party monitoring may be applied to enhance monitoring capacity and/or to ensure impartial external tracking of E&S impacts by civil society, academia, etc.	No third-party monitoring is practiced.	Apply their party monitoring if feasible
Information disclosure and stakeholder engagement	For all projects involving E&S risks of impacts and benefits as well, information disclosure and engagement of the stakeholders is required throughout the project life. Project proponent shall develop and implement Stakeholder Engagement Plan.	EIA Code requires disclosure of draft screening reports and EIA reports. National authority holds public consultations on these documents. EIA c-Code requires disclosure of project proponent's report on the residual E&S impacts of a completed project. There is no requirement stakeholder engagement throughout the project life.	Develop and implement Stakeholder Engagement Plan.
ESS2: Labour and Working Conditions			

Working conditions and management of labour relations	Institutions involved in project implementation, including works contractors, are required to have in place Labour Management Procedures clearly defining terms and conditions of employment, including wages, working hours, and overtime payments; eligibility for rest and medical leave, insurance, standards of accommodation worksite, etc. Contractors are required for develop and adopt Code of Conduct through which they commit to non-discrimination and equal employment opportunity, restriction of child and forced labour, unacceptance of SEA/SH, no nuisance to local communities, socially and environmentally responsible behaviour, etc.	Institutions are not required for have own LMP. The requirement is confined to the compliance with the Labour Code of Georgia Code of Conduct is not defined and required by the national legislation.	Develop and implement LMP for the project and cause contractors to adopt their own LMP aligned with the project LMP. Obligate contractors to adopt and adhere to the Code of Conduct.
Grievance redress mechanism	Contractors and consultants deployed for project implementation are required to have GRM for their staff and personnel.	No requirement for works contractors to practice GRM.	Require contractors to establish and operate GRM for workers.
Occupational Health and Safety	Project proponent is required to set forth and enforce contractors' compliance with OHS standards in line with the sector specific EHS Guidelines of WBG. Project proponent is required to undertake regular monitoring of OHS performance of works contractors, apply preventive measures in case shortfalls are identified, and enforce requirement improvement of OHS practices followed by contractors.	Georgia's Labour Code and Law on Labour Safety are aligned with the ESS 2 and EHS Guidelines of the World Bank Group, but enforcement mechanism is weak. Project proponent is required to have a defined number of OHS in-house staff or a part-time consultant depending on the number of employees. No requirement to assign OHS specialist to a given project. Neither project proponent nor national authority are required to undertake regular monitoring of OHS performance and document results. National authority undertakes occasional spot checks or responds to incidents.	- Include OHS requirements in works contracts; - Have a designed OHS specialist(s) overseeing project implementation; - undertake regular OHS monitoring and record results; - Instruct works contractors on good OHS practices and actively enforce adherence to these practices.

Community workers	Requirements for working conditions and OHS applied to community workers	No requirements cover community workers	Extend applicability of requirements pertaining worksite safety and working conditions to cover community workers
Primary supply workers	Project proponent is required to apply due diligence to primary suppliers by screening risks of them using child labour and/or forced labour, discriminating workers by race, ethnicity, gender, etc., and failing to provide decent working conditions to personnel. If screening reveals such issues, project proponent shall require suppliers to take corrective actions or, if issues persist, project proponent shall replace such primary suppliers.	Project proponent carries no responsibility for the labour management and occupational health and safety practices exercised by suppliers. State regulatory agencies are mandated to enforce respective requirements of the national legislation on suppliers.	Screen primary suppliers against poor labour management and OHS practices and to take action in case of grossly poor performance is revealed.
ESS3: Resource Efficiency and Pollution Prevention and Management			
Energy use	For energy-intensive projects, project proponent is required to follow Environment, Health, and Safety Guidelines of the World Bank Group to ensure optimization of energy usage to the extent technically and financially feasible.	National laws on Energy Efficiency, and Energy Efficiency of Buildings apply.	Follow EHS Guidelines of WBG in addition to complying with the national legislation.
Water use	For water intensive projects, calculation of water balance, assessment of specific water use (volume of water used per unit of production), analysis of project impacts on water-dependent communities and other users, and use of best available water-saving technologies is required. Climate change impacts shall be considered and built into the design of water-intensive projects.	Calculating water balance is required in the process of EIA but not the assessment of specific water use. National legislation prioritizes municipal water supply for domestic consumption over other types of water use. No specific requirements and principles of water sharing (e.g., for irrigation, power generation, etc.) or water saving are stipulated explicitly. No scrutiny is applied to build climate perspective into water-intensive projects.	Explore project impacts on the affected communities and other water users within the watershed and apply mitigation measures. Include design-for-climate principles into the development of engineering solutions for the project
Use of raw materials	For projects that are likely to use significant volume of raw materials, project proponent is required adopt measures specified in EHS Guidelines of WBG to support efficient use of	No requirements exist to optimize use of raw materials.	Follow EHS Guidelines of WBG in order to optimize use of raw materials in projects expected to use them in large volumes.

	raw materials to the extent technically and financially feasible.		
	Extraction of natural construction material (sand and gravel) from riverbed is considered environment-damaging bad practice and is prohibited under World Bank financed projects. Timely reinstatement of material extraction sites is mandatory.	Material extraction from riverbed is not explicitly prohibited. It is recommended that extraction is made from natural agglomeration of sediment. Area covered by an extraction license may include riverbed (originally or as a result of meandering). Extraction site reinstatement plan is required and is subject to approval by the Ministry of Environmental Protection and Agriculture, while the extraction license is issued by the National Agency of Mineral Resources. Enforcement of reinstatement plans is weak. Reinstatement usually does not start until entire site is used up and the license has expired after years of operation.	Prohibit material extraction from river channel. Obtain site reinstatement plan as approved by MEPA from the license documents held by contractor and monitor its implementation. Inform MEPA on significant infringements of site reinstatement plan for the action by Environmental Supervision Department of MEPA.
Pollution prevention and management	Project proponent is required to avoid the release of pollutants or, when avoidance is not feasible, minimize and control the concentration and mass flow of their release using the performance levels and measures specified in national law or the EHS Guidelines of WBG, whichever is most stringent. This applies to the release of pollutants to air, water, and land.	Air, water, and land pollution are managed following the Law on Air Quality Management, Law on Waste Management Code, Law on Water, and thresholds for permitted concentration of pollutants in emissions and discharges established in by-laws and regulations supporting enforcement of the above laws.	Require project proponent to compare requirements of national legislation and respective parts of EHS Guidelines of WBG to identify areas where higher than national standards may apply and strive to attain them as technically and financially feasible.
ESS4: Community Health and Safety			
Community health and safety	Project proponent is required to keep communities within the project impact zone informed about ongoing and upcoming works and to have contract information displayed for the attention of communities to facilitate their access to GRM. Project proponent is required to assess risks of negative impact on communities within the	No specific requirements to manage impacts of labour influx and other risks faced by local communities. All activities at worksites are subject to general national legislation and any specific regulations that may come into force in case of infectious disease breakout.	Require project proponent to assess risks of negative impacts on local communities and apply mitigation hierarchy to risk management.

	project impact zone and apply impact mitigation hierarchy to address risks of local communities - suffering from cultural, economic, and health implications of labour influx, - getting into traffic accidents involving contractors' equipment and machinery, - suffering health impacts from pollution originating at worksites, - having reduced availability of losing ecosystem services as a result of project's environmental impacts, etc.		
Security personnel	Project proponent is required to apply due diligence while selecting security personnel through reviewing their track record and monitor their performance to exclude abuse of power, nuisance to local communities and other misbehaviour.	No requirement/responsibility other than recruiting certified security personnel is posed on the user of such personnel.	Require project proponent to apply due diligence to the selection and performance monitoring of security personnel.
ESS5: Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement			
Applicability	ESIA report is required to provide an overview of the conducted assessment of involuntary resettlement need, scope, impacts, and their mitigation. Procedures for handling involuntary resettlement apply to both formal and informal users of land and other property. Procedures for handling involuntary resettlement apply to the loss of livelihood in a broader sense than the loss of material property.	EIA report is not required to provide information on the need for involuntary resettlement, its scope, and impacts. Involuntary resettlement procedures apply to only legal and 'legalizable' property owners (i.e., ones with legitimate claims to land and property that may be registered under national law) but not to informal users. No procedures in place to assess to assess loss of livelihood as a result of project implementation.	Include summary of the assessment of involuntary resettlement need, scope, impacts, and their mitigation. Assess not only material loss of affected people but impact on livelihood as well.
General	Project design shall avoid/minimize need for displacement.	No specific requirement to avoid displacement. Regulations in place to provide replacement cost and offer land-for-land compensation where	Develop and implement RAP that meets requirements of ESS5 prior to

	Affected people shall be provided replacement cost and assistance (including livelihood restoration), be offered land-for-land compensation where possible and be fully compensated prior to getting under impact. A comprehensive RAP shall be developed that sets forth compensation methodology, provides data from census, sets cut-off dates, considers special treatment for vulnerable and disadvantaged, and includes monitoring plan is required. RAP must be developed in a participatory manner and meaningfully discussed with the affected people. GRM must be available for affected people. RAP implementation completion report shall be produced documenting process outcomes. Audit is to be undertaken for significant displacement.	possible, but no requirement for livelihood restoration or other allowances. No requirements for public consultations, and no additional requirement for vulnerable. No requirement for the establishment and operation of GRM in addition to the blanket coverage by Administrative Code of Georgia. No requirement for a detailed RAP, establishment of cut-off dates, giving notices, and monitoring of RAP implementation. No requirement for displacement audit.	commencement of works in the impact area. Produce RAP completion report satisfactory to the World Bank.
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources			
Habitat classification and conditions under which impact on habitats is permitted	ESS 6 classifies habitats into transformed, natural, and critical habitats and sets conditions under which an activity impacting various types of habitats may proceed. An activity impacting natural habitat may proceed if there are not technically and financially feasible alternatives and if application of mitigation hierarchy to the expected impacts allows to achieve not net loss or, preferably, net gain of biodiversity. Mitigation measures may include biodiversity offsets, as feasible. An activity impacting critical habitats may proceed if there are not technically and	National regulatory framework provides for protecting, conserving, and restoring biodiversity. However, species more than habitats are in the focus of protection. National law does not define transformed, natural, and critical habitats. EUNIS Terrestrial Habitat Classification is practiced for the purposes of the establishment and management of Emerald Network sites and developing protected area management plans. No generic conditions are set forth under which an activity affecting various types of habitats may proceed. Such conditions may be defined in an environmental decision (permit) issued for an individual activity.	Require project proponent to map and classify habitats within project impact area in line with the requirement of ESS 6. Observe conditions under which World Bank financing may be spent on project affecting natural and critical habitats. Develop and implement Biodiversity Management Plans for projects affecting natural habitats.

	financially feasible alternatives, project follows due process defined in international treaties and national legislation, net gain of target biodiversity values is achieved, no net reduction of populations of critically endangered species and no significant conversion of critical habitats occur, and long-term biodiversity monitoring is organized to track project impacts and effectiveness of mitigation measures.	Although mitigation hierarchy is ruled in for addressing impacts on biodiversity, compensation is interpreted in a simplistic manner, like monetary payment to the State budget for the extraction of trees set per individual Red Listed species. No requirement for biodiversity offsets exists.	
ESS8: Cultural Heritage			
General	Developing and adhering to the project-specific change find procedure is required. Maintain confidentiality of change finds or other aspects of cultural heritage if advisable for ensuring safety and integrity of the heritage. Meaningful consultation with stakeholders on the planned activities involving cultural heritage is required. Assuring equitable benefit sharing from the use of cultural heritage is required.	Law of Georgia on Cultural Heritage provides required procedures in case of chance finds. No requirements for developing project-specific chance find procedures. Requirements on stakeholder consultation and consideration of benefit-sharing are not explicit in the national legislation.	Develop project-specific chance find procedure as relevant based on the national legislation with the emphasis of awareness-raising and training of works contractors. Do not disclose information on chance finds and other cultural heritage through publicly available media sources if advisable for keeping these assets safe until proper security arrangements are made and adopted. As part of the EIA and SEP preparation, undertake mapping of cultural heritage stakeholders, understand the way they use or have used cultural heritage, and design and implement the project in the way ensuring agreeable and fair use of cultural heritage by identified stakeholders.
ESS10: Stakeholder Engagement and Information Disclosure			

Engagement during project preparation	Identification and analysis of stakeholders, including disadvantaged or vulnerable groups, is required. Development of a Stakeholder Engagement Plan for project lifetime is required. SEP shall be sensitive to the needs of various types of mapped stakeholders to ensure meaningful consultation; shall include institutional arrangements, staffing, roles and responsibilities, and budget for implementation. Disclosure of information on the expected E&S risks, main impacts, and approach to their mitigation is required at the early stage of project preparation.	No requirements for stakeholder identification and analysis. E&S information disclosure at the early stage of project preparation happens only for activities listed in Annex II of EIA Code (mostly moderate risk activities) through the disclosure of screening report. Screening and early disclosure of information is not required for higher-risk activities (included in Annex I of EIA Code) and low risk activities (not listed in any of the Annexes of EIA Code).	- Identify and analyse stakeholders. - Develop SEP. - Ensure disclosure of core information on E&S risks, impacts, and mitigation measures at the early stage of project design.
Engagement during project implementation	Stakeholder engagement throughout the project life through the implementation of SEP is required.	No requirement for stakeholder engagement throughout the project life. Consultation meetings are confined to those on the draft environmental screening report and draft EIA report.	Implement (and periodically update, as need be) SEP throughout the project life.
Grievance Redress Mechanism	Project proponent is required to establish and operate GRM throughout project life. Formal, informal, and anonymous complaints are accepted and acted upon. GRM shall be sensitive to SEA/SH complaints and handle them with respective caution.	No requirement for institution-specific or project-specific GRM. Grievances are handled according to the provisions of General Administrative Code of Georgia. Anonymous complaints are not accepted. Procedures for grievance redress are not sensitized to the treatment of SEA/SH complaints.	Establish and operate project-level GRM according to the requirements of ESS 10.

Project implementation will also follow general and sector-specific Health, and Safety (EHS) Guidelines of the World Bank Group (WBG) and Good International Industry Practice (GIIP).

5. INSTITUTIONAL FRAMEWORK FOR ENVIORNMENTAL, SOCIAL, AND LABOR MANAGEMENT AND GRAIL PROJECT ADMINISTRATION

5.1. Institutional Framework for Environmental, Social, and Labour Management

Mandates of the executive Government of Georgia and public entities exercising power relevant for environmental, social, and labour management under GRAIL Project or directly participating in the Project administration are described in this chapter.

Ministry of Environmental Protection and Agriculture

Authority of MEPA spans across management and fostering of environmental protection, agriculture, and rural development areas. Key functions of the Ministry are:

- Managing and overseeing natural resources (apart from mineral resources, oil and gas);
- Supporting sustainable development and green economic principles;
- Monitoring and managing environmental pollution;
- Assessing and record-keeping on environmental state of the river basins and reservoirs on the territory of Georgia, territorial waters of the Black Sea, and continental shelfs;
- Elaborating and implementing State policy on atmospheric air protection, water and land resources management, waste and chemicals management, climate change, and genetically modified organisms;
- Effectively managing and protecting of soil resources;
- Producing recommendations on determining and suspending emergency ecological state or ecological disaster zones;
- Suspending, limiting, or terminating any activity having or likely to have adverse impact on the environment, as well as unreasonable use of natural resources;
- Administering the system of environmental impact assessment and permitting;
- Supporting and regulating agro-production, agro-recycling, cattle, poultry and fish farming, agro-engineering, plant protection and delivery of veterinary services;
- Undertaking and fostering agrarian reforms of the country aspired by the traditions of Georgia harmonized with the successful international expertise;
- Fostering development of rural and agrarian cooperatives in the country;
- Facilitating adoption of best practices and expertise in agricultural production, facilitating production and marketing of food products and ensuring their safety;
- Fostering knowledge generation and sharing in the field of agro-production and supporting enhancement of agricultural extension services;
- Facilitate development of infrastructure for marketing agricultural produce;
- Regulate use of pesticides and other agrochemicals;
- Exercise quarantine against introduction and spread of infection and disease through trade

in agricultural commodities;
- Foster economic growth in rural Georgia and decrease in rural poverty.

MEPA consists of several functional departments and has a number of Legal Entities of Public Law (LEPLs) under its umbrella, which are responsible for various aspects of the Ministry's mandate.

LEPL National Environmental Agency under the MEPA

National Environmental Agency (NEA) was established on September 1, 2008. The recent reorganization in MEPA moved Department of Environmental Impact Assessment from the main body of MEPA to NEA, giving NEA the important mandate of undertaking state expert review of EIA reports and issuing environmental decisions (permits). More specifically, Department of Environmental Impact Assessment of NEA will be:

- Carrying out screening and scoping procedures in accordance with the rules established by law, issuing environmental decisions on activities subject to environmental impact assessment, organizing expertise for this purpose;
- Making relevant decisions on the strategic environmental assessment report and the draft strategic document;
- Organize transboundary environmental impact assessment procedures;
- Ensuring the participation of the public / stakeholder in the environmental decision-making process and ensuring access to relevant information and public hearings for this purpose;
- Organize the necessary procedures for discharge from the environmental impact assessment of the planned activity, prepare a relevant proposal and submit it to the Government of Georgia;
- Review and agree on draft regulations for technical discharge of pollutants into surface water bodies, technical regulations for removal of water from surface water bodies;
- Review and agree on the draft report on the sources of air pollution and the inventory of harmful substances emitted by them and the norms of maximum emission of harmful substances into the ambient air, in accordance with the rules established by law;
- Issuance of permits for import, export, reexport and transit of ozone depleting substances.

Department of Environmental Supervision of MEPA undertakes State control in the field of environment protection and use of natural resources:

- Prevention, detection, and suppression of facts of illegal use of natural resources;
- Prevention, detection, and suppression of environmental pollution;
- Control over the fulfilment of Georgia's international obligations in the field of

environment within its competence;
- Monitoring the implementation of the legislation, including the creation of a database of the object of regulation, control over the fulfilment of the licenses submitted by the objects of regulation, the conditions set by the environmental decisions.

LEPL National Agency for Sustainable Land Management and Land Use Monitoring under MEPA is mandated to:

- Participate in the preparation and implementation of state policy for designated use and protection of agricultural land resources, and of relevant designated state programs; in the preparation and implementation of state policy for the sustainable management of agricultural land; planning of activities to fight against desertification and land degradation, and to restore soil fertility; and planning and carrying out of activities related to the management of windbreaks (shelter belts); in the establishment of administrative-territorial borders; and in international and local grant competitions and carry out relevant activities within the project;
- Receive and review applications concerning investments plans related to privately owned plots of agricultural land, prepare relevant documents to be submitted to the Minister of Environmental Protection and Agriculture of Georgia, and supervise the implementation of investment plans;
- Prepare thematic maps of land use;
- Store, maintain and ensure access to documents submitted to the Agency within the frames of legislation in force;
- Receive grants from international donor organizations and carry out relevant activities with received grants;
- Exercise other powers determined by the legislation of Georgia.

LLC Georgian Amelioration under MEPA is a State-owned enterprise mandated to provide irrigation and drainage services in the territory of Georgia. Strategic goals of GA are to increase water supplied areas, improve efforts for maximal utilization of water supplied areas, increase involvement of water users for complex enhancement of water supply efficiency and effectiveness, and achieve sector's viability and sustainability.

LEPL National Forestry Agency (NFA) under the MEPA is mandated to ensure protection, restoration, and sustainable use of Georgia's forests. The main tasks of the Agency are to:

- Manage the State Forest within the frames defined by the Law on the Forest Code;
- Establish and revise boundaries of the State Forest;
- Undertake forest inventory and registration, carry out forest zoning and prescribe

predominant type of use in these zones, develop/approve Forest Management Plans and oversee their implementation;

- Care for forests, protect them from pests and disease, fire, and other hazards, and restore damaged/lost forest cover;
- Allocate parcels of the State Forest for their sustainable economic use and special use to eligible bodies and undertake State Forest harvesting for commercial purposes and for supplying dependent rural households with firewood.
- Issue permits for special forest use and special tree cutting within the territory of the State Forest.

LEPL Agency of Protected Areas (APA) under the MEPA is responsible for managing Georgia's strict nature reserves, sanctuaries, national parks, natural monuments, managed reserves, protected landscapes, biosphere reserves, and participate in the management of world heritage sites, wetlands of international importance, and Emerald sites.

The objective of APA is to improve the management of protected areas, ensure functionality of territorial administrations, and supervise the process of following legally established regulations and to plan, create and develop new protected areas. APA, within its competence, is authorized to issue and / or restrict the right to carry out certain activities within the protected areas.

Ministry of Justice

The main activities of the Ministry of Justice (MoJ) are legislating, harmonizing legislation, and raising legal awareness in public. Ministry of Justice, on the one hand, provides legislative activities, and on the other, ensures harmonization of legislation with international legal standards. In this regard, Ministry of Justice is working closely with the Parliament, the Office of the Government of Georgia, relevant ministries, other State and local agencies, as well as foreign and international organizations.

LEPL National Agency of Public Registry (NAPR) under the MoJ is in charge for official registration of land ownership. NAPR also registers property transfer through purchase agreements. Previously operating Municipal (Rayon) Archives are now transferred into the possession of Municipal Registration Offices of NAPR, and information is registered and stored in a centralized database. Municipality Archives are used for cross-verification of ownership documentation and validity of physical possession of land by persons seeking registration as legalizable owners. If valid registration in the NAPR database does not exist, the Archives can be used to prove the rights of for a particular land parcel and historical documentation can be used for legal registration.

Under the Law on Recognition of the Property Ownership Rights Regarding the Land Plots

Owned/Used by Physical Persons or Legal Entities (2007), Government of Georgia established the Property Rights Recognition Commission (PRRC) for recognition of ownership rights of owners/users for further registration. PRRC verifies and authorizes application of ownership for registration with the NAPR. PRRC authorizes application of only those interested persons who are not registered but have non-agricultural or agricultural plots adjacent to the parcel where the applicant lives.

LEPL Digital Governance Agency (DGA) under MoJ s mandated to:

- Develop, through interagency coordination, a unified State policy and strategy on digital governance and the digitalization of services, and facilitate their implementation;
- Manage and administer the unified portal of electronic services, and integrate new electronic services with the portal;
- Via the unified portal of electronic services (My.gov.ge), provide users with electronic access to the services available within the system of the Ministry, including to the services provided by Public Service Halls and Community Centers;
- Develop and facilitate the establishment of a uniform standard for creating and providing electronic services, in order to ensure the interoperability of electronic services and the proper and safe operation of the unified data exchange system (infrastructure), the unified portal of electronic services and the services provided by Public Service Halls and Community Centers;
- Administer and develop the unified data exchange system (infrastructure);
- Authorize and supervise the activities of a qualified and reliable service provider in accordance with the procedures established by the Law of Georgia on Electronic Documents and Electronic Trust Service and the subordinate acts issued on the basis thereof;
- Introduce and monitor the unified state 'cloud system'.

Ministry of Economy and Sustainable Development

Ministry of Economy and Sustainable Development (MESD) has a broad mandate for foresting and sustaining economic growth in the country. Towards this end, the Ministry:

- Works out strategic vision and policy for economic development, undertakes sectoral analysis and modelling, initiates and leads reforms required for adjusting economic governance with the external shocks and national priorities;
- Provides public infrastructure and facilitates private investments in tourism and mountain resorts;
- Defines policy, provides and operates public infrastructure, and facilitates private

investments in energy sector, including support to reviewable sources of generation and energy efficiency;
- Develops policy and regulates international trade and international economic relations of Georgia, civil aviation, and land and maritime transport;
- Supports mall and medium businesses;
- Registers and manages State property of Georgia;
- Fosters development and adoption of digital technologies.

LEPL Technical and Construction Inspection Agency under MESD is responsible for issuing construction permits for infrastructural projects, for supervision over construction, and authorizing commissioning of delivered infrastructure.

LEPL National Agency of Mineral Resources (NAMR) under the MESD carries out the following activities:

- In accordance with the legislation of Georgia, granting those licenses that are defined by the Law of Georgia on Issuing licenses and permits for the extraction of mineral resources (except Oil and Gas) and keeping registry of issued licenses;
- Approving mine exploitation plans within the scope of licenses;
- Exercising control over adherence to the conditions of issued licenses;
- Keeping inventory and database of deposits and manifestations of mineral resources and mapping them;
- Participating in the activities of the State Interagency Commission of Mineral Reserves;
- Keeping record of all types of completed and ongoing industrial and scientific geological research in the territory of Georgia, its territorial waters, continental shelf, and special economic zones.

LEPL National Agency of State Property under MESD was established on September 17, 2012. It exercises powers related to the privatization / sale of the State property, the transfer of the right of use and the management of enterprises with state ownership. The Agency also manages issues related to strict accounting forms and manages the property of interested individuals and legal entities through the electronic auction website www.eauction.ge.

Ministry of Culture, Sports, and Youth

The main tasks of the Ministry in the field of protection of cultural heritage are:

- Development / conduct of a unified cultural heritage policy, including a unified museum

policy;

- Conservation / restoration, tangible conservation / promotion of tangible and intangible cultural heritage, immovable and movable cultural monuments and objects of cultural heritage, objects of cultural heritage, other cultural values, in accordance with the authorities defined by the legislation of Georgia;
- Implementation of measures related to the definition of the rules for conducting works on archaeological works and cultural heritage monuments;
- Development of recommendations on the construction, placement, or dismantling of monuments, architectural-sculptural and decorative compositions throughout Georgia within the frames of legislation in force.

LEPL National Agency for Cultural Heritage Preservation (NACHP) under the Ministry of Culture, Sports, and Youth is responsible on supervision of the construction activities in order to protect archaeological heritage. In case if construction is to be carried out in a historic sites or zones of cultural heritage, consent of the national agency for cultural heritage preservation is also required for issuing construction permit.

In case of chance finds of the potential archaeological value, project proponent shall contact the national agency for cultural heritage preservation and seek guidance on the course of action. All action has to be taken on hold till the guidance from the agency is received formally. Project proponent is obligated to allow sufficient time and provide favourable conditions for undertaking works necessary for excavation, removal of artifacts from the site and its conservation. Works may resume only upon formal consent of the agency. In rare cases, changes may be required in the project design to bypass the site of exceptional importance and historic value.

Ministry of Internally Displaced People from the Occupied Territories, Labour, Health, and Social Affairs

Ministry of Internally Displaced People (IDPs) from the Occupied Territories, Labour, Health, and Social Affairs (MILHSA) develops, implements, and coordinates the State policy on labour, healthcare, and social protection of the population, as well as relocation and resettlement of IDPs and eco-migrants. The functions of the Ministry include management and administration of the following areas:

- IDPs, eco-migrants, and reintegration: regulating issues of IDPs and eco-migrants according to the political, socio-economic, and demographic conditions of the country, collecting data on eco-migration flows caused by emergencies (natural disasters, epidemics, etc.), facilitating reintegration of Georgian citizens returning from emigration to Georgia;

- Healthcare: regulating operation of public and private healthcare facilities. ensuring public health protection, regulation of medical and pharmaceutical activities;
- Social protection: providing targeted social assistance to eligible citizens, ensuring children's welfare, developing and implementing policies aimed against domestic violence and abuse, protecting and rehabilitating victims of domestic violence;
- Labour and employment: regulating labour relations and promoting social partnerships, managing labour migration and facilitating legal employment abroad (seasonal labour migration), promoting employment, including coordination for recruiting in alternative, non-military labour services, facilitating the development of labour safety and protection mechanisms in organizations and institutions and elimination of labour discrimination cases supervising compliance with labour safety norms at high-risk, heavy, harmful and dangerous work sites as defined by the Law of Georgia on Labour Safety.
- Integration of persons under international protection legally residing in Georgia and stateless persons having status for living in Georgia: developing and implementing relevant programs for local integration of internationally protected persons, aliens legally residing in Georgia and stateless persons having status for living in Georgia, and perform this function, cooperation with relevant competent governmental entities.

LEPL Labour Inspection Department under MILHSA ensures the effective execution of labour regulations by controlling and checking compliance with the OHS rules at the workplace; preventing forced labour and exploitation; and investigating and recording work-related accidents and occupational illness cases at workplaces. From January 1, 2021, mandate of the Department includes supervising labour rights to determine compliance with the Labour Code.

As a result of changes to OHS law in February 2019, the Labour Inspectorate is now mandated to make unannounced visits at workplaces at any time of the day or night, without a court order and prior notice to investigate, examine and check the workplaces to ensure effective and continuous compliance with work safety and labour rights' regulations. The employers are required to inform the labour inspectorate of any accidents at their workplaces within 24 hours according to OHS law, however anyone could inform the labour inspectorate of the accident.

5.2. Institutional arrangements for GRAIL Project Administration

MEPA and MoJ are designated as GRAIL Project implementing agencies. ***GA and the National Agency for Sustainable Land Management and Land Use Monitoring*** under MEPA and ***NAPR and DGA*** under MoJ will carry particular responsibilities in the implementation of particular subcomponents of the Project. MEPA and NAPR will operate ***Project Implementation Units*** (PIUs) mandated to undertake day-to-day Project management by administrating fiduciary functions of Project administration (financial management; procurement; disbursement; contract management; and environmental, social, health and safety management).

PIUs may comprise in-house staff of MEPA and NAPR as well as full-time or part-time individual consultants. Individuals and legal bodies may act as ***Consultants*** to PIUs, providing other types of technical assistance, such as technical supervision of works, studies, designs, training, and so forth. They will be selected on competitive basis under specific Terms of Reference following procurement guidelines for Borrowers developed by the World Bank.

PIU will competitively select and contract providers of civil works, i.e., Contractors, to undertake rehabilitation/reconstruction of irrigation and drainage infrastructure. Templates for tender packages and contract forms developed for the Borrower by the World Bank will be used for this purpose and the World Bank's procurement guidelines for Borrowers will be adhered.

Local municipalities, in the territories of which the irrigation and drainage infrastructure is located, will have a say in many aspects of Project implementation. The Constitution of Georgia gives the principles to identify the rights of a self-governing unit and not the rights of a self-governing unit. A detailed list of the rights of self-governing units based on the principles given by the Constitution is given in Article 16 of the Code of the Local Self-Governing Body of the Organic Law. Municipalities participate in spatial and territorial planning of the municipality and approving urban planning documents, including the general plan of land use. They issue construction permits for small-scale infrastructure and are authorized to exercise control over the construction works, which may be the case for some types of works to be undertaken under GRAIL Project. Municipalities are mandated to manage public property and natural resources (e.g., land and forest) owned by them. They undertake the collection and disposal of household waste, management of local roads, and a few other functions relevant for the GRAIL Project. For instance, local municipalities will play an important role in designating and allocating sites for the arrangement of construction camps, temporary and final disposal of construction waste and cut-to-spoil material and in the operation of grievance redress mechanism.

5.3. Institutional Arrangements for CERC Activation and Implementation

CERC of GRAIL Project will be activated and implemented in compliance with the Loan Agreement, MEPA's Project Operations Manual (including Emergency Operations Manual attached to it), and the present ESMF (including CERC ESMF attached to it). Institutional arrangements for CERC activation and implementation are summarized in the below table.

Table 5: Steps for implementation

Step	Actions	Responsible
1	***Decision to trigger CERC:*** In the event of an official declaration of emergency, based on preliminary damage and needs assessment, the Government of Georgia informs the World Bank about its interest of triggering CERC	MoF
2	***Identification of emergency activities:*** Following the Government's decision to trigger CERC, based on the results of the preliminary damage and needs assessment, the Borrower shares and agrees with the World Bank the list of emergency response activities that GRAIL Project support is sought for. The Borrower prepares summary information on the proposed activities, including the nature and amount of goods, works, the location and type of the proposed emergency services/activities and their preliminary technical specifications, estimated costs and environmental, social, health and safety implications, and the nature of grants, subsidies, cash benefit programs, the targeted beneficiaries, and modes of implementation.	Government of Georgia World Bank
3	***Request of activation***: The MoF sends a letter requesting the activation of the CERC to the World Bank. It includes the description of the emergency event, the needs, indication of funding source, and amount to be reallocated, and list of activities to be carried out in response to the emergency.	MoF
4	***Review and no-objection:*** The World Bank reviews request for CERC activation and in case of consent, grants no-objection.	World Bank
5	***Reallocation***: The World Bank processes the reallocation of funds from the other Project components to CERC.	World Bank

6	***Implementation of Emergency Activities:*** Government of Georgia agrees implementation arrangements with the World Bank and starts undertaking activities under CERC. ***Environmental, social, health and safety due diligence*** is applied to emergency operations following attachment 6 to the present ESMF. ***Financial management*** of emergency operations follows the Project's financial management and reporting procedures as defined in the Loan Agreement and detailed in the Project's Operations Manual. ***Monitoring and reporting*** on the implementation of emergency operations is undertaken as per oversight and reporting mechanisms established for the Project. An external audit firm undertakes annual audit of financial statements of the entire Project, including CERC, and the compliance with the World Bank's Anti-Corruption Guidelines.	Government of Georgia
7	***Final reporting***: The final report on CERC implementation is prepared and furnished to the World Bank once all emergency activities are completed.	Government of Georgia

6. BASELINE INFORMATION ON THE SITES PROPOSED FOR GRAIL PORJECT INTERVETION

6.1 Key Parameter of Irrigation and Drainage Schemes Shortlisted for Rehabilitation

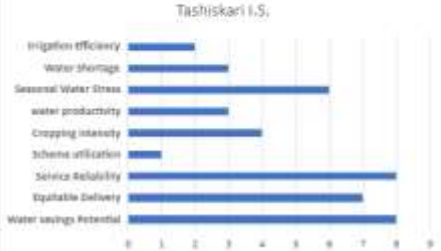
The below charts characterize by key parameters the five irrigation schemes and one drainage scheme shortlisted for GRAIL Project support.

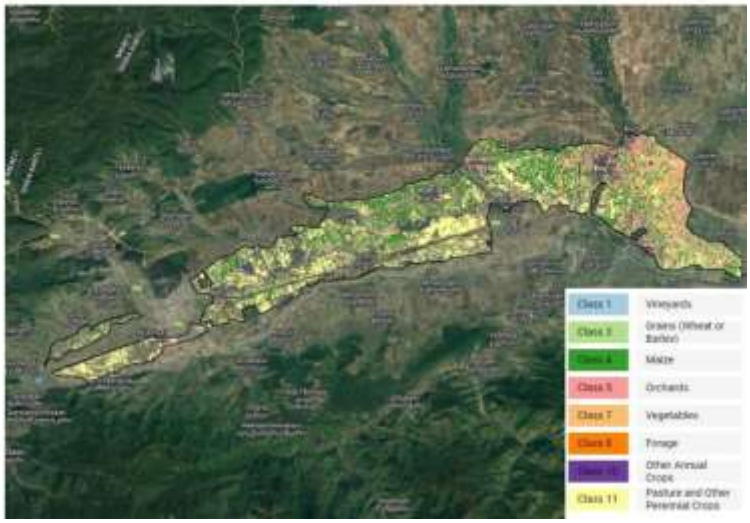
Tashiskari

Area: 12,615 Ha

Main crops:

Pasture and Other Perennial Crops
Maize



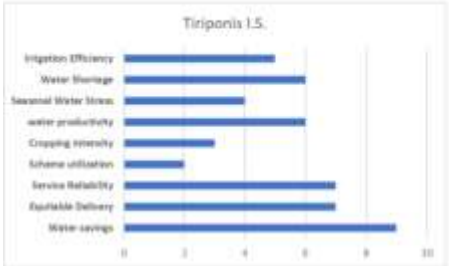


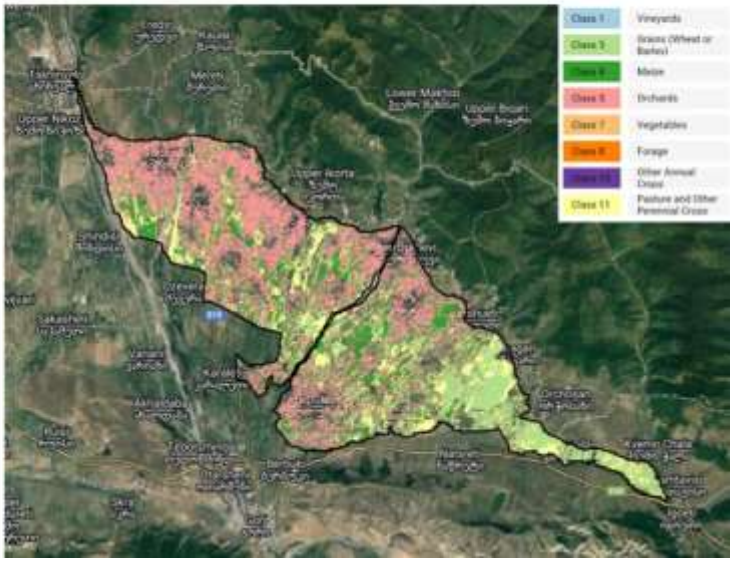
Tiriponi

Area: 5,210 Ha

Main crops:

Orchards
Pasture and Other Perennial Crops



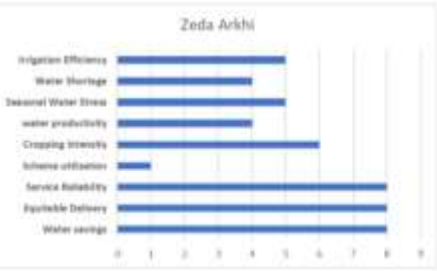


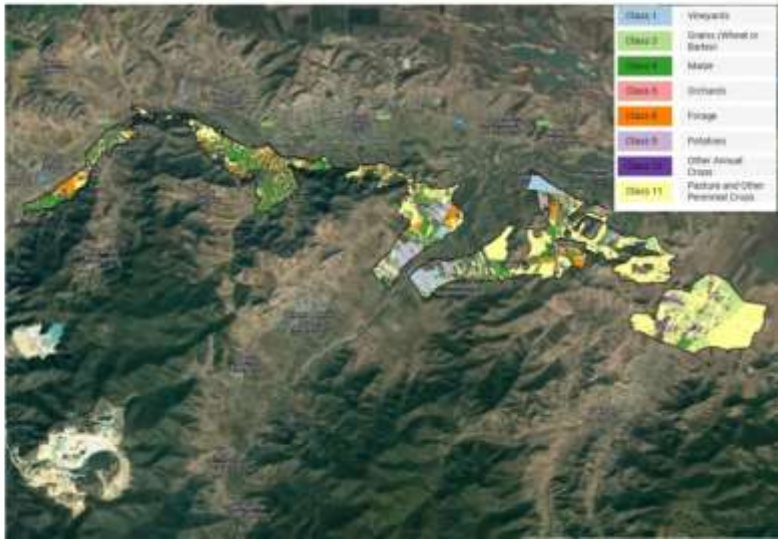
Zeda Arkhi

Area: 1,490 Ha

Main crops:

Pasture and Other Perennial Crops
Maize

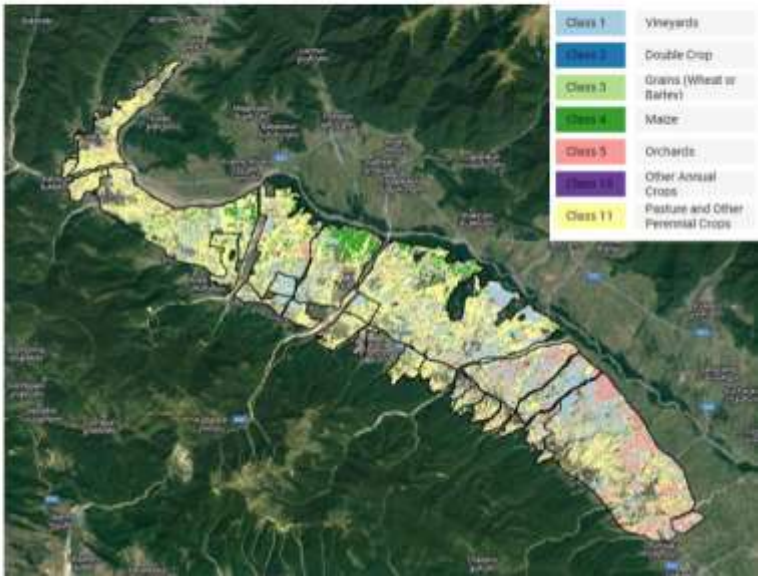




Zemo Alazani

Main crops: Pasture and Other Perennial Crops, Vineyards

	Area (HA)
Matani (D-6)	350
Matani (D-7)	380
Matani (D-14)	400
Qistauri (D-29)	400
Matani (D-34)	670
Ojio (D-39)	900
Atzkuri (D-42)	300
Ruispiri (D-58)	550
Gulgula (D-61)	400
Shalauri (D-75)	600
Vanta (D-90)	400
Akura (D-93)	760
Total	**6,110**

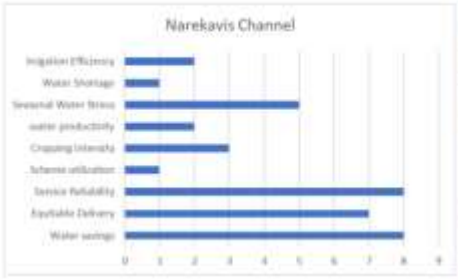


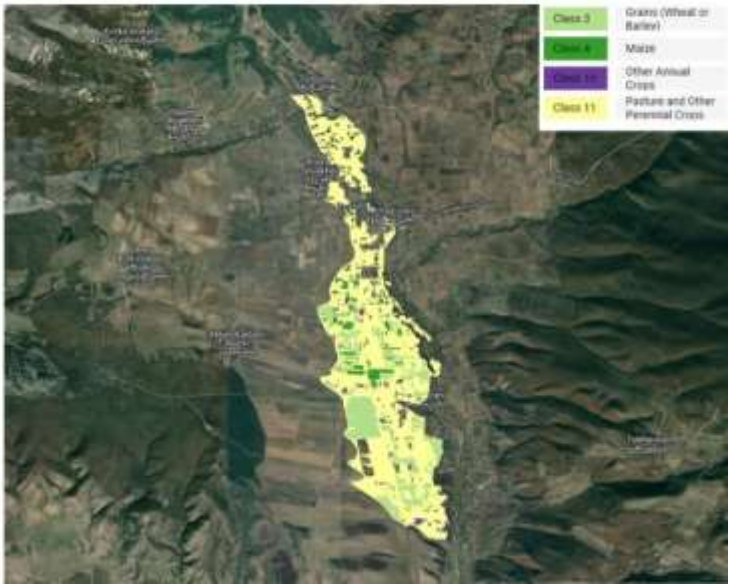
Narekavi res. & Scheme

Area: 655 Ha

Main crops:

Pasture and Other Perennial Crops
Grains (wheat or Barley)





Shavgele Massif

Area: 807 Ha

Main crops:

Pasture and Other Perennial Crops
Orchards

6.2 Biophysical Baseline

Administrative Structure, Landscapes, and Habitats

Irrigation and drainage schemes shortlisted for the Project support are located in Shida Kartli, Kvemo Kartli, Kakheti, and Mtskheta-Mtianeti regions of East Georgia and Samegrelo-Zemo Svaneti region of West Georgia.

The town of Gori is the administrative center of ***Shida Kartli***. The region comprises Gori, Khashuri, Kareli, Kaspi, Tskhinvali, and Java administrative units. The two latter are currently occupied by Russia and not under de facto jurisdiction of Georgia. GRAIL Project interventions do not go to these disputed areas.

The norther boundary of Shida Kartli follows the main ridge of the Caucasus mountain chain; the southern boundary follows Likhi mountain ridge, the southern boundary – Trialeti ridge, and the eastern boundary – Kharuli ridge and Ksani River. Mtkvari (Kura) River flows in the southern part of Shida Kartli lowland. Mtkvari River gorge elevates to the North and then flattens to form Tiripon-Mukhrani plain. Shida Kartli carries diverse habitats, including temperate dry steppes, broadleaf forests with dominating species of oak above 800 meters elevation from the sea level and with beech as the dominating species above 1200 meters from the sea level, mixed forests in the areas with higher humidity comprised of coniferous species and beech, and subalpine and alpine meadows above 2,000-2,200 meters above sea level.

The town of Rustavi is the administrative center of ***Kvemo Kartli***. The region comprises Tsalka, Dmanisi, Tetritskaro, Bolnisi, Marneuli, and Gardabani administrative units. The latter three have considerable number of population speaking Azerbaijani language. Due to its location, Kvemo Kartli represents the transit route connecting Georgia to Azerbaijan and Armenia via motor and rail roads. Rustavi has the second largest industry after Tbilisi.

Kvemo Kartli is located mostly on an alluvial plain bordered by Trialeti and Loqi mountain ridges. Mtkvari River splits the plain in two parts of Marneuli and Gardabani lowlands. Here, the elevation from the sea level ranges between 260 to 600 meters. Apart from Mtkvari, the area is crossed by Khrami and Algeti Rivers. Kumisi Lake is located in the North-East part of Kvemo Kartli, and Jandara Lake lies on the Gardabani lowland. The landscape if highly transformed with anthropogenic impact. Steppes for forested steppes were the natural habitats of the region, however, little has survived of that. At present, the area mostly carries cultivated agricultural fields under various crops.

The town of Telavi is the administrative center of ***Kakheti***. The region comprises Telavi, Gurjaani, Kvareli, Sagarejo, Dedoplistskaro, Signagi, Lagodekhi and Akhmeta administrative units. Kakheti is the main wine-producing area for Georgia and attracts increasing number of tourists. Also, it features several most important protected areas of Georgia. Kakheti connects Georgia to Azerbaijan and Armenia by road.

Nature is very diverse in Kakheti, with semi-deserts, forests, plains, meadows, and subalpine vegetation. Elevation from the sea level varies from 90-120m at which the Eldar Plain lies, to almost 4,500m up in the Caucasus Mountains. Southern slopes of the Caucasus descend steeply to the fertile Alazani valley, cultivated for vine and other crops. Mountainous Tusheti area has

rich summer pastures and well-preserved historic villages with fortified towers from medieval era. Around 2/3 of all floral species registered in Georgia are found in subtropical Lagodekhi area. Semi-arid Dedoplistskaro carries light forests and steppes, and floodplain forests spread along Metkvari River. Fauna is rich in large mammals such as tur, gazelle, deer, brown bear, lynx, etc.

The town of Zugdidi is the administrative center of Samegrelo-Zemo Svaneti. The region comprises Abasha, Chkhorotsku, Khobi, Martvili, Mestia, Senaki, Tsalenjikha, and Zugdidi municipalities and the town of Poti. The region has a highly diverse landscape and ecosystems. The northern region of the region is situated on the slopes of the Great Caucasus Mountain Chain. 96 % of Zemo Svaneti lies above 1,000 meters above the sea level and 65.8 % - above 2,000 meters. Khobi Municipality and the town of Poti are located in Kolkheti lowland with minimal elevation from the sea level and in particular locations – with negative elevation. The region is rich in surface water bodies, including numerous lakes and rivers, the largest of which are Rioni and Enguri. Most of Georgia's hydropower generation occurs in the territory of Samegrelo-Zemo Svaneti.

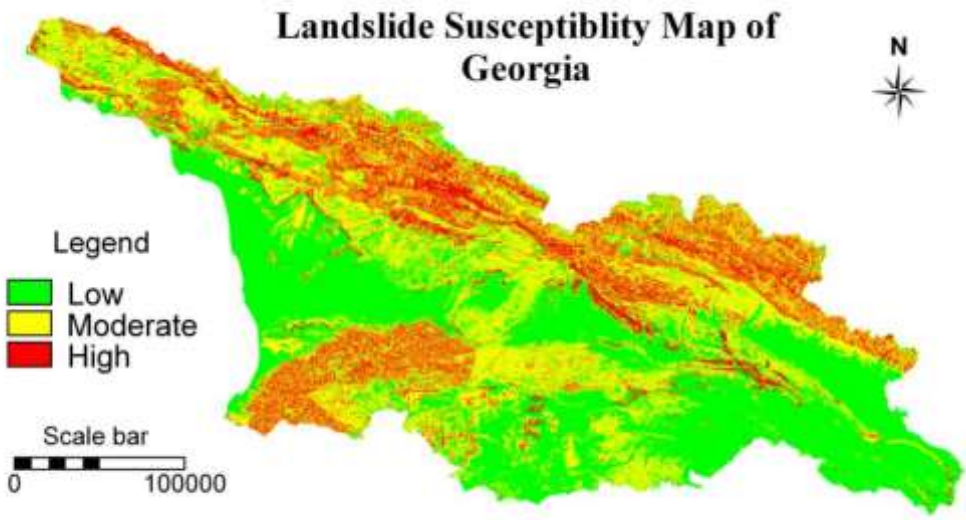
Kolkheti Plain carries wetlands, rainforests, and light forests. The climate is very humid subtropical. Predominant agricultural crops are citrus, tea, hazelnuts, maize, and commercially grown berries. Alnus and willow occur in rainforests, while oak, chestnut, hornbeam, beech, Zelkova, and Caucasus wingnut are common in drier forests. Eucalyptus was introduced to Kolkheti in 19th century. Large mammals occurring in Samegrelo-Zemo Svaneti region include wolf, fox, bear, wild boar, marten, otter, etc. Avifauna is represented by Colchic pheasant, wild goose, wild duck, and others. Also, Kolkheti Plain is an important habitat for numerous species of of migratory birds crossing it in Spring and Autumn.

Climate

Irrigation schemes considered for the Project intervention are located in East Georgia, while the only shortlisted drainage scheme is located in West Georgia. Climatic conditions already felt impacts of the global climate change, and its expected long-term trends considerably differ in the eastern and western parts of the country and represent two distinctive patterns. In eastern Georgia, where irrigation is prevalent, climate is characterized with increasing temperatures, eroding soils, intensifying droughts, floods, and an increased occurrence of hail. Countrywide, the availability of water resources is highly dependent on the seasons. River flows, especially in Eastern Georgia, depend on snowmelt. High flows occur in April to May, and low flows- in July to August, during the peak demand for irrigation services. In West Georgia, precipitation rates increased from 1960 to 2015, specifically in Svaneti low hill zones, Adjara Mountain areas, and Poti and Imereti mountain areas, with a few exceptions, such as the eastern part of Adjara at Goderdzi Pass. Apart from the Lagodekhi municipality, in which precipitation slightly increased, Eastern Georgia had a reduction trend in precipitation and observations suggest that a decrease of rainfall in the summer period will be observed. All climate scenarios show that precipitation is projected to decrease during the farming season (June-August period) and increase in autumn, spring, and winter months.

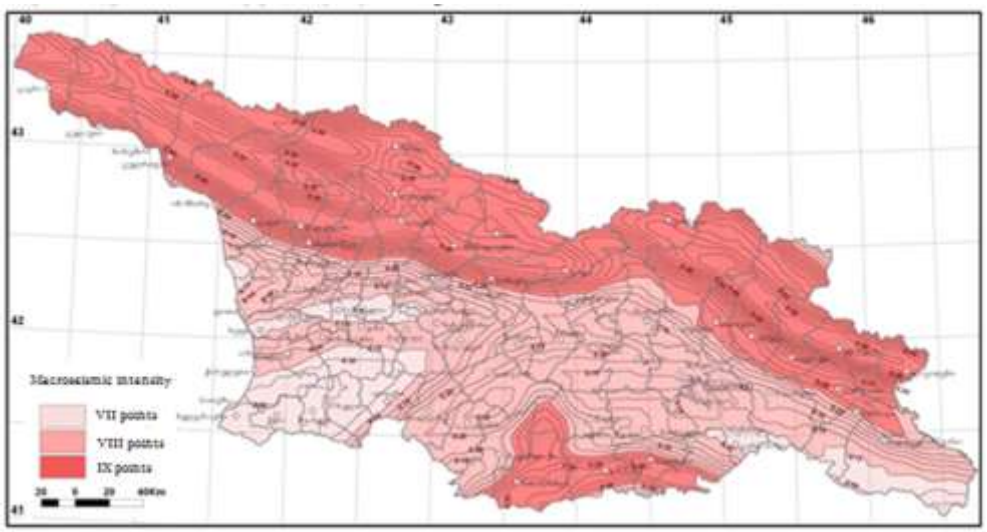
Geologic Activity

A study of geologic activity undertaken by G. Gaprindashvili (2011) resulted in zoning and mapping of landslide hazards for Georgia. According to the below map, most of the areas intended for the GRAIL Project intervention are located in "low danger" (green) zone, while part of the area may go into "moderate danger" (yellow) zone. It means that landslides will not pose major threat to the Project and its outcomes. However, in certain areas that are not geologically active at present, landslides may be triggered by anthropogenic impact in the form of vegetation clearance, slope cutting, and poor reinstatement of sites after earth works have been undertaken.



Tectonics and Seismicity

According to the seismic zoning of Georgia (Decree №1-1/2284 of the Minister of Economic Development of Georgia dated October 7, 2009, on approving Building Norms and Rules for Earthquake-Resistant Construction, the country is divided into 3 zones with different seismic activities (zones 7-9, with increasing seismicity), most of the territories intended for the GRAIL Project intervention are within zone VIII corresponding to likely earthquake magnitude of M=8 as per the Map of Seismic Hazards below.



Note: Acceleration is given in *g* units

Wildlife

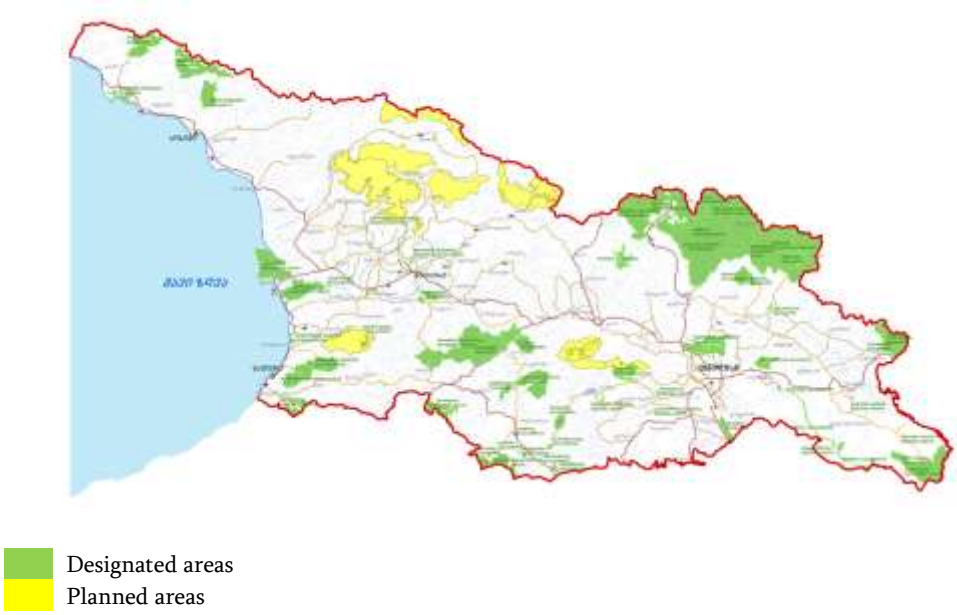
Georgia has ample and diverse flora comprising around 13,300 species, including 4,225 species of seed plants, 75 species of ferns, 600 species of mosses, 650 species of lichen, 5,000 species of fungi, and 2,000 species of algae. Some 380 species are endemic for Georgia, like Megrelian birch, Georgian almond, pine species *eldarica* and *pityusa*, and others. Some relic species are found in Kolketi area of West Georgia, such as Pontic oak, Cherry laurel, Pontic rhododendron, and others. Georgia is famous for carrying wild ancestors of several crop cultures, including vine and wheat, that comprises an important germplasm for crop breeding. Round 40% of Georgia's territory is under forest cover. Invest Georgia, forests occur as low as at the sea level, while in East Georgia, the forest belt appears at the elevation of 600-700 meters from the sea. Upper limit for forests is the subalpine zone. Mountain forests and flood plain forests carry special importance for natural balance and for the delivery of ecosystem services. Remarkably, a few virgin forest stands are preserved on the southern slopes of Caucasus mountain ridge.

Georgia's fauna is also quite rich, comprising of up to 100 species of mammals, 330 species of birds, 48 species of reptiles, 11 species of amphibians, 160 species of fish, and many more species of invertebrate. Some of these species are endemic for Georgia, like the Caucasian tur. Overall, species characteristic for Europe, Central Asia, and Western Asia prevail. Georgia is on the route of migratory species and carries an important bird area located closer to the Black Sea cost in western part of the country. Due to the landscape, a so called "funnel" is formed there with large number of migratory birds passing through a narrow corridor. Birdwatching is gaining popularity in various parts of the country.

Georgia created the national Red List of Species in 2006, updated in 2014, and plans to revisit it again. This is a list of vulnerable, rare, endangered, and critically endangered species of lora and fauna, compiled and formatted in line with the international Red List of Species maintained by IUCN (International Union for Conservation of Nature). Over 50 plants and over 130 animals appear on the Red List of Species. They are protected by law.

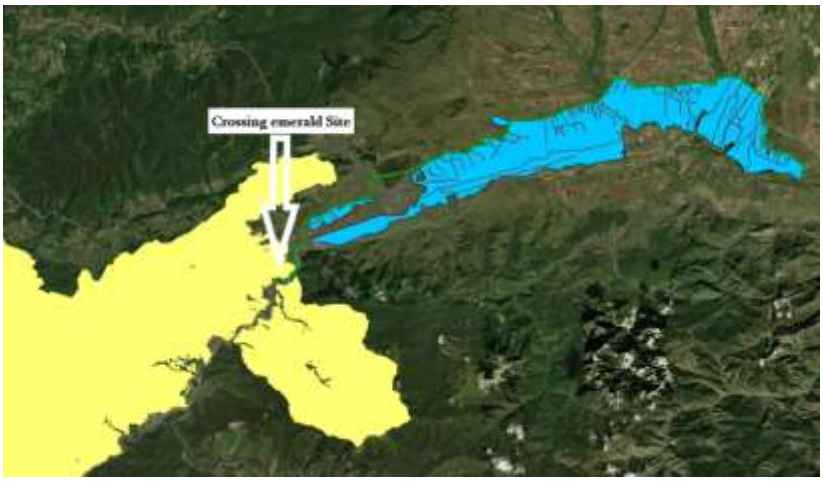
Protected Areas

Georgia has a well-developed system of nationally designated protected areas. Categories of protected areas consistent with the classification of the IUCN (International Union for Conservation of Species) include 14 State nature reserves, 13 national parks, 23 managed reserves, 40 natural monuments, and 3 protected landscapes. Total area of protected areas amounts to almost 800,000 hectares that comprises about 11,5 % of the country's territory. The first biosphere reserve was founded in north-west Tusheti area of Georgia in May 2021. Over 100,000 hectares are viewed for the establishment of new protected areas. There is high touristic interest in protected areas where the protection regime allows visitation. Some categories of protected areas are administered by the APA, while others are under the local administrative governance.

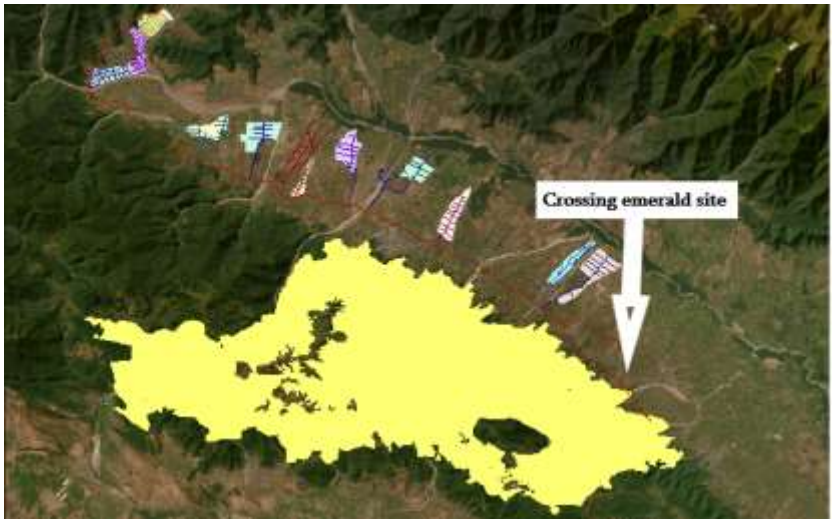


Georgia develops the system of internationally designated protected areas as well. In 2021, four protected areas comprising Colchic rainforests and wetlands were granted the status of UNESCO natural heritage. The number of Emerald Sites has been growing over the years in Georgia as part of the pan-European ecological network with the goal of preserving the biodiversity of Europe under the auspices of the Convention on the Conservation of European Wildlife and Natural Habitats (Bern, 1979).

Three of the irrigation and drainage schemes shortlisted for GRAIL Project support cross or are in immediate proximity to nationally and/or internationally designated protected areas, as shown in the below maps.



Main canal of Tashiskari irrigation scheme crossing Burjomi-Kharagauli National Park and an Emerald Site No GE0000010



Zemo Alazani irrigation scheme canal crossing Gombori Sanctuary and Emerald Site No GE0000027

Shavgele Masiff drainage scheme canal passing in 10 m distance from the boundary of Kolkheti National Park and Emerald Site No GE0000006

6.3. Economic and Social Baseline

Agricultural Economy

Approximately 41 percent of the total population live in rural areas, and the majority of those living in rural areas rely partly on agriculture for their livelihoods. Agriculture provides 19.1 percent of total employment. According to the most recent agricultural census conducted in 2014, the share of commercialized farms producing higher value crops for export remains low. Almost 80 percent of rural farmers operate less than one hectare of agricultural land, 14.9 percent operate one to two hectares, 4.3 percent operate two to five hectares, and only 1.3 percent have five hectares or more. Most smallholdings produce primarily for subsistence purposes and lack direct commercial potential. Productivity is low and stagnant for most crop and livestock products – both in absolute terms and relative to comparator countries. However, despite the apparent limitations of smallholder farms, a small but increasing number of medium-sized and larger commercially oriented producers and agri-business enterprises are driving the development of domestic market and export-oriented value chains.

Irrigation and Drainage Infrastructure

After regaining independence in 1991, Georgia went through a turbulent transition period following the collapse of the Soviet Union that resulted in the deterioration of a large part its irrigation infrastructure. This caused a sharp decline in the irrigated area. Drained and cultivated land also declined to 4 or 5 thousand hectares as maintenance provision collapsed. Since 2012, the areas covered with both irrigation and drainage services started to rebound as the Government began funding selective rehabilitation activities, focused on main and secondary infrastructure. From 2012 onwards, the irrigable area increased to around 130,000 ha as of 2020, and drainage service is available for 34,400 hectares of agricultural land. Most of the high-value agricultural production in Georgia is in the central and eastern regions and relies on irrigation.

Waste Management Infrastructure

Around 900,000 tons of municipal waste is generated annually in Georgia and more than 75 percent of it is estimated to end up in formal landfills. The rest is freely dumped in random locations, predominantly in rural areas. But out of all formal landfills operating in the country, only four hold environmental impact permits. Some of these landfills were established between the 1960s and the 1980s of the past century, without any protective features in place. They pose serious threat to the public and environmental health. Solid Waste Management Company of Georgia manages 54 waste disposal sites across the country. It has already closed 23 landfills and continues to maintain 31, of which, only one operates according to the EU standards.

The country lacks specialized landfills for construction waste and for hazardous waste. As an alternative solution, municipalities in Georgia are authorized to dedicate special places/plots for the disposal of non-hazardous construction waste. As for Asbestos containing materials, they are allowed to be disposed at solid waste disposal facilities, as well as small volumes of

cut-to-spoil material. Hazardous waste goes to long-term temporary storage in the facilities operated by private companies authorized to receive, recover, deactivate, and store hazardous waste.

Waste management hierarchy is adopted through the Waste Management Code, including principles of circular economy. However, there are very few recycling companies in the country. Additionally, most of the recyclable materials as most of the generated waste is not being separated. Regulatory improvements, institutional capacity building, and infrastructure are being developed for improved waste management.

Cultural Heritage

Georgia is World-famous for its cultural heritage and historic/culture/wine tourism represent important segments of international tourism to this country. Archaeologic finds dating from several millennia BC, pre-Christin towers and fortifications, early and medieval Christian architecture, ornaments and inscriptions in stone, unique technique of enclosed enamel and goldsmithing used to decorate icons, jewelry, and ritual objects are the main assets of historic cultural property of Georgia. Archaeologic treasures of the country include evidence of winemaking being originated eight millennia ago in the region where the country of Georgia is located nowadays (Marneuli, Kvemo Kartli Region), and remnants of early human species dating back to 1,8-1,7 million years BC (Dmanisi, Kvemo Kartli region). Movable historic and cultural property is preserved in the well-developed network of museums, while immovable assets are formally categorized as cultural heritage and protected by law. These include several archaeologic parks and open-space ethnographic museums.

Georgia ratified the Convention on Safeguarding of Intangible Heritage in 2008. Since then, several elements of national music, wine- and food-making, traditional rituals and sports have been entered in the UNESCO Intangible Heritage List. National legislation also recognizes and protects intangible cultural heritage.

Population and Its Vulnerable Groups

Population of Georgia has significantly decreased in the last 25 years due to intense out-migration and currently makes approximately 3.7 million, with 52 percent female and 48 percent male population. 41 percent of the population lives in rural areas and 59 percent lives in urban areas. 32 percent of the total population is concentrated in the capital city of Tbilisi.

The Project impacts may disproportionately fall on disadvantaged or vulnerable individuals or groups. The vulnerability may stem from a person's gender, age, health condition, disability, ethnic/language background, economic deficiency and financial insecurity or other circumstances, like being a single parent, being a caregiver for elderly or persons with disabilities, etc. For the purposes of the GRAIL Project implementation, the vulnerable or disadvantaged groups include and are not limited to the following elderly; individuals with chronic diseases and disabilities; internally displaced persons and refugees; women and female-headed households; persons not speaking Georgian language.

Two of the shortlisted irrigations schemes are expected to have particularly large populations of vulnerable groups. Tiriponi scheme in Shida Kartli region is the largest irrigation scheme among those shortlisted and is located near the conflict zone. Shida Kartli also has one of the largest numbers of IDPs who fled Tsklhinvali area as a result of the armed conflict with Russia in 2008. In total, there are 75 IDP settlements, with almost 17,000 IDPs in Shida Kartli. The settlements that are located close to the Tiriponi irrigation scheme include Karaleti, Shavshvebi, Berbuki, and Khurvaleti. Living conditions in these settlements are poor. Residents have little access to social and health infrastructure, such as kindergartens and ambulatories, and lack of access to agricultural land. Some of the settlements also face drinking water and sanitation issues. The largest post-2008 war settlement is Tserovani, in Mtsketa-Mtianeti region, but it is located remotely from Narekvavi irrigation scheme.

Zeda Arkhi irrigation scheme is located in Bolnisi population. According to the latest census, out of around 56,000 inhabitants of the municipality, around 60% are of Azerbaijani origin. Youth in ethnic minority regions are generally good in communicating in Georgian but in older generations, the knowledge of Georgia is limited. Project SEP takes this into account.

Of around 125 thousand persons with disabilities officially registered in Georgia, 10% live in Samegrelo-Zemo Svaneti region, 9% live in Kakheti, 8% in Kvemo kartli and 7% in Shida Kartli. As no disability-specific survey has been conducted in Georgia, the actual number of people who qualify as disabled may be higher. Georgia uses a traditional approach to grant disability status, focusing on the medical model and ignoring a more comprehensive assessment of social needs and function. Such an approach, therefore, likely underestimates the disability levels in the country and affects the policies developed. Moreover, the medical model may lead to legal exclusion. For example, regarding autism or Down syndrome, the state grants disability status only if it can be demonstrated that the individual is unable to perform the same tasks as his/her peers. Because it is difficult to demonstrate this among the very young, opportunities for helping children mitigate the diagnosis are missed, and help is provided too late. The Law on Medical and Social Examination has provisions on social approach in defining disability. Nevertheless, the actual procedure to grant disability status does not reflect the provisions in the law, requiring people go through medical examinations to obtain “medical proof” to qualify for state support. The state system assumes that all persons with disabilities will seek out an such an assessment. Georgia doesn't have standard designs to ensure public water and sanitation points are disability inclusive. However, for irrigation projects, this may not be as relevant as for water and sanitations projects.

Economy and Employment

Georgia experienced significant economic decline in 2008-2009 due to the armed conflict with Russia in 2008 and the World crisis of 2009. Georgia had a negative GDP growth of -3.7% in 2009. Following this, the economic growth became positive and increased over 2010-2011 to 6-7%. After 2013, the growth slowed down and since then stabilized at about 4-5%. COVID-19 pandemic was a severe blow for Georgia’s economy, but recovery has been impressive with double-digit economic upturn. Activities important for the national economy include

hydropower generation, tourism, production of wine and other agricultural commodities (nuts, berries, green spices), and mining (manganese, copper). Georgia takes advantage of its strategic location and develops its role as transport corridor between Asia and Europe. International highways, railway, oil and gas pipelines pass through Georgia and construction of undersea power and broadband cables is considered across the Back-Sea bed, connecting Georgia to Romania.

Labor market and employment in Georgia are influenced by several important factors. Over the 2022, there has been significant outflow of labor force to the various countries of Europe. At the same time, tangible number of working-age people arrived from Russia due to armed conflict with Ukraine and internal political tension. Overall, job numbers increased towards end of 2022, job gains including opportunities in arts, entertainment and recreation; finance and insurance; local government; healthcare and social assistance; education; and professional, scientific, and technical services. Although the system of higher and vocation education is impressive in terms of the number of schools and the graduates, surveys consistently indicate considerable mismatch between supply and demand in terms of skill mix: employers are not finding staff qualified for the types of offered jobs while jobseekers remain unemployed. Paramount importance of skill-based education is, therefore, flagged as one of the key challenges in human resource development. Average nominal monthly wage came close to 1600 GEL in the year of 2023. Pensions for those above 70 years increased by 65 GEL and made 365 GEL, while pensions for those below 70 years of age increased by 35 Gel and made 354 GEL. Pensions are slightly higher for the residents of high mountainous areas of Georgia.

Level of Poverty

Georgia is an upper middle-income country. The National Statistics Office reported that in 2021, the share of the population below the absolute poverty line in Georgia (absolute poverty rate) decreased by 3.8 percentage points compared to the same period of the previous year and amounted 17.5%. Based on the same source, in 2021, the absolute poverty rate in urban type settlements decreased by 2.1 percentage points and amounted to 15.0%, while in rural type settlements it decreased by 6.3 percentage points and amounted to 21.3%. The absolute poverty rate decreased compared to the previous year in all age groups of the population. Particularly, the indicator was 22.7% in the age group under 18 years (-3.7 percentage points), in the 18-64 age group – 17.3% (-3.9 percentage points), and in the age group 65 and older – 11.9% (-3.5 percentage points). Absolute poverty rates for both women and men fell by 3.8 percentage points and amounted to 17.1 and 17.9%, respectively. The share of the population under 60% of the median consumption decreased by 0.8 percentage points and amounted to 18.9%, while the share of the population under 40% of median consumption increased by 0.4 percentage points and amounted to 7.4%. The value of the Gini coefficient in terms of total incomes remains at the level of 0.37. Also, the value of the Gini coefficient in terms of total cash inflows has not changed and is at the level of 0.39.

A significant share of the Georgia's population remains involved in low-productivity agricultural activities contributing to high levels of poverty and inequality especially in rural

areas. Farms in general have a low level of productivity and are disconnected from markets, and agri-food export products and destinations remain highly concentrated. Almost 80% of households operate less than one hectare of agricultural land, 14.9 % operate one to two hectares, 4.3 % operate two to five hectares and only 1.3 % (8,577 households) have five hectares or more. For most small farms, the combination of small farm size and low farm productivity means that agricultural incomes are too low to survive on farm earnings alone and non-farm wages and transfers are the major sources of their income.

Healthcare

Universal Health Coverage was established in Georgia on 28 February 2013, with over 90% of the resident population entitled to a tightly defined package of state-funded benefits, substantially increased access to quality care. Nevertheless, state expenditure for public health remains relatively low (2.9 percent of GDP) and out-of-pocket spending as a percentage of total health expenditure remains very high (54% in 2018). In July 2017, the package of benefits was expanded to cover vulnerable households, pensioners, veterans, persons with disabilities.

Non-communicable diseases prevail (93%) as the cause of mortality in Georgia, led by diseases of cardio-vascular system and cancer. Prevalence of smoking, alcohol use, and obesity are showing an upward trend. The country is losing 2,4% of its GDP due to tobacco related death, disability, productivity loss and other burden. Prevention and control in preventive healthcare settings is suboptimal. In the wake of COVID-19 pandemic, Georgia had already been facing many challenges in the area of communicable diseases, with insufficient adherence to tuberculosis treatment. Spread of HIV/AIDS is mostly confined to high-risk groups, with a critical challenge of low detection rate and late diagnosis. The Hepatitis C Elimination Program is a success. Antimicrobial resistance persists is an issue of increased concern due to sub-optimal antimicrobial resistance surveillance and little use of diagnostic support for treatment decisions.

Gender-Based Violence

While there is a significant under-reporting of gender-based violence (GBV) in Georgia, particularly in rural areas, recent surveys indicate that GBV and, in particular, domestic and intimate partner violence is a concern in this country. According to the GBV research conducted by UN Women (2017), around 14 % of ever-partnered women aged 15-64 reported experience of at least one form of violence by an intimate partner in their lifetime, 6% reported physical abuse, and 2% - sexual abuse. In addition, 10% report that they have experienced some form of economic violence in their lifetime. In the same survey, 10% percent of women reported having experienced sexual harassment at the workplace. Over the last fifteen years, Georgia has progressively strengthened its legislation, institutional capacity and services in support of GBV survivors, and enforcement mechanisms. GBV services in Georgia include security/safety assistance by Police, legal aid, healthcare assistance/mental health counselling, psychological aid, shelter protection, and other types of assistance provided by support groups from NGOs.

7. ENVIORNMENTAL AND SOCIAL RISKS AND IMPACTS

1.1. Environmental and Social Risk Categorization

National legislation of Georgia does not provide for general risk categorization or any due diligence for projects with framework approach. EIA Code applies to individual investments and due diligence starts at the detailed design stage. Therefore, there are no national procedures applied to GRAIL Project in its entirety. Only site-specific investment designs will be examined for environmental risk level and checked for a need to undergo EIA.

GRAIL Project environmental and social risks are rated as ***substantial*** according to the Environmental and Social Risk Categorization applied by the World Bank. Rating is based on the inherent risk coming from the presence of sensitive environmental and social receptors within the Project's impact area; scope, scale, and nature of physical works required for Project implementation; and no prior exposure of Project implementing entities to the ESF of the World Bank (introduced in 2018) which is important because the Project must be implemented in material consistency with the World Bank's relevant ESSs.

Present ESMF is prepared for the Project prior to its commencement for meeting the requirement of ESS 1. Once individual investments are confirmed and detailed designs prepared, they will be screened for environmental and social risks. Investments categorized as high risk will not be eligible for the Project support. Those with moderate or substantial risk rating will be authorized for Project funding. Site-specific environmental and social instruments will be prepared for these investments according to the below guidance.

Environmental and Social Risk Screening of Subprojects

Environmental, social, and OHS specialists of MEPA PIU will review each proposed subproject to filter out high-risk operations that are ineligible for the Project support, and to determine what kinds of site-specific environmental and social instruments shall be prepared for each of them. Non-eligible high-risk activities to be exempt from the Project financing are the following:

- Subprojects that are included in the World Bank Group/International Finance Corporation Exclusion List;
- Subproject that are likely to have multiple and complex negative impacts on the natural and/or social environment that are not known upfront, are difficult to assess, and mitigation of which may not be financially or technologically feasible;
- Subprojects with impacts that spread beyond implementation sites or have trans-boundary nature;
- Subprojects that will affect critical or natural habitats such as wetlands, virgin forests, important bird areas, strict nature reserves, Emerald Sites, etc., as well as areas that are critical for the provision of ecosystem services;

- Subprojects that cause significant impacts on human populations, including settlements and local communities;
- Subprojects that require clearcutting or conversion of significant amounts of forests;
- Subprojects that affect and later natural balance of underground and aquatic ecosystems;
- Subproject that disrupts hydrological balance of catchments.

Further, MEPA PIU environmental, social, and OHS specialists will determine types and magnitude of the expected environmental and social impacts of eligible subprojects using checklist provided in Attachment 1 to this ESMF and will define whether a given investment carries substantial risks and requires conduct of Environmental and Social Impact Assessment (ESIA), or whether the risk is moderate and a self-standing checklist ESMP will suffice. If subproject implementation implies activities listed in Annex II of the EIA Code of Georgia, then environmental screening will be undertaken as defined in this Code. Depending on the screening outcome, NEA will conclude whether EIA procedure is applicable to a given activity. Risk assessment of subprojects includes determining expectance of the resettlement impacts and a need for the preparation of a Resettlement Action Plan (RAP) and determining higher than national average likelihood of chance finds screening checklist provided in Attachment 2).

Indicative outline of the ESIA report and the ESMP checklist template are attached to the present ESMF (Attachments 3 and 4 respectively). Detained guidance on the preparation of RAPs is provided in the Resettlement Policy Framework (RPF) of the GRAIL Project.

1.2. Impacts Expected in the Construction Phase

Vegetation Clearance

Rehabilitation works are expected to be mostly confined to the right-of-way of the beneficiary irrigation and drainage schemes. However, right-of-way may not be duly registered or not properly maintained. Both wild and agricultural plants may be growing along and even within the open canals. Some reconstruction works may require widening of the right-of-way to certain extent. Overall, environmental footprint of the Project will be minimal because earth works will require clearing of vegetation in relatively narrow strips of land along the existing canals. This may imply extraction of individual trees. Hence, modest negative impacts on transformed habitats are expected. Small parts of infrastructure to be rehabilitated under the GRAIL Project are located within or in proximity to protected areas carrying natural habitats. Possibility and extent of impacts on the vegetation of protected areas will be examined with particular scrutiny.

Noise, Vibration, and Emissions

Noise and dust propagation and vibration are typical for worksites where construction vehicles and machinery are operated. Emissions of inorganic dust from earth works and from loading of trucks, and emission of harmful substances and dust from combustion of diesel used by transportation means and machinery occur during construction works. Experience from the already implemented infrastructural project is that multitude of run-down old houses in rural

Georgia is prone to impacts from even moderate vibration coming from construction sites. In some cases, old houses develop cracks and structural damage due to aging regardless of construction works ongoing in their vicinity, but house owners claim that vibration has caused the damage and request compensation. Establishing attribution may require specialized investigation, take time and extra cost.

Generation of Construction Waste

Rehabilitation of irrigation and drainage infrastructure will generate construction waste. This may include limited volumes of asbestos-containing hazardous waste. According to the Waste Management Code of Georgia, sanitary landfills are not authorized to accept non-hazardous construction waste. Therefore, it is to be disposed at private, municipal, or State-owned land plots. Finding suitable space in proximity to the construction sites is not easy and always possible, while longer routes of transportation increase cost for contractor. Allocating State-owned land plot for construction waste disposal is a bureaucratic and lengthy procedure. Long delays are expected in their completion.

Asbestos-containing construction waste is accepted by sanitary landfills in the required packing. Handling of asbestos-containing waste carries a risk of health damage to workers if not property instructed on the rules of safety, adequate personal protection gear not provided or not used in a disciplined manner. There is an addition risk associated with safe disposal of asbestos-containing replaced pipes: in many cases, local communities do not allow construction contractors to remove and dispose such pipes claiming old pipes shall stay with the community for reuse in private farms and yards. Sharing information on the health hazards of being in contact with asbestos does not always help to changes public attitude to the subject matter.

Generation of Spoil

Cut-to-spoil material is used for backfilling as much as possible. Excess material may be accepted by municipal sanitary landfills charge-free in limited amounts to be used for landfill operation. Remaining spoil may be disposed in a private, State-owned, of municipal land plot. Finding options for the disposal of material is time consuming; especially so if local municipalities or private landowners are not willing to accept it. Administrative procedures for allocating a State-owned land for the disposal of spoil material is bureaucratic and long delays are likely with their completion.

Release of Construction Runoff

In case of oil and lubricant leakage from machinery and stockpiled construction materials, oil products and chemicals can penetrate the ground water or run off to water recipients. The same results are likely from improper servicing of vehicles and machinery. Liquid construction waste from concrete batching on site may become a heavy pollutant of soil and water if released without pre-treatment.

Sourcing of Natural Construction Material

Construction works under the Project will require supply of sand and gravel. Contractors may choose to purchase material from external suppliers and operate quarries on their own. Illegal extraction of mineral resources is highly uncommon in Georgia, however, extraction practices are often not environment-friendly. Sand and gravel are extracted from riverbanks. EIA is required for larger quarries and no environmental due diligence are applied to quarries below threshold. However, multiple small quarries located along the same river cause significant cumulative impact that is not captured and duly considered. Although extraction of material from riverbed is disallowed, enforcement if difficult as water flow is subject to seasonal fluctuation and some rivers shift beds overtime. Therefore, boundaries of plots authorized for extraction through licenses may not always stay outside of the watercourse, in which case license holders would proceed with material extraction from the riverbed. Finally, reinstatement of quarries is mandatory, but not duly enforced: reinstatement plans tend to be generic, and their implementation usually does not start until license term is close to expiry. Because licenses are valid for several years, parts of quarries that are no longer in use, remain abandoned without due reclamation for extended periods of time.

Cultural Heritage

Project implementation will not affect any known monuments of cultural heritage. However, conduct of earth works in the territory of Georgia is always associated with the likelihood of encountering chance finds. If works are to be undertaken near the known archaeologic sites, then this risk is higher than average. Chance finds cause delay and disruption in work schedule and may lead to the commercial loss for contractors. However, rushing resumption of works after encountering of a find carries the risk of damaging artifacts due to inadequate handling, packing, and transportation. Furthermore, resuming works without due exploration of the site may entail damage to artifacts present at the site but not yet unearthed.

Community Health and Safety

GRAIL Project implementation is not expected to require large labor influx, however, concentration of workers at and around worksites may cause various negative impacts on the nearby communities. Whether workers live at work caps or rent space in the houses of local residents, they will come into contract with locals. This may cause tensions due to cultural, ethnic, religious, or other differences. Cases of sexual harassment may increase. The same may be observed in the occurrence of sexually transmitted and other communicable disease. This includes the risk of spreading HIV/AIDS and COVID infections, especially in case of nation-wide outbreaks of the latter.

Movement of construction vehicles and machinery around construction sites through local settlements and roads may cause disruption of common traffic pattern, cause increased occurrence of traffic accidents.

If contractors choose to use security services for safeguarding worksites and their property located therein, local communities may suffer from abuse of power by security service staff.

Labor Management

All categories of Project workers may be susceptible to unfair treatment by their employers and poor treatment in the working environment, however, workers employed by construction contractors are known to be most susceptible to such risks. Employers may choose to use informal labor and do not sign contracts with workers; there may be delays with payment of wages; workers may be requested to work long hours without additional payment, without timely breaks, without taking leave for rest, or be otherwise exploited. Likelihood of forced labor and child labor is very low. Individual workers may experience discrimination by gender, ethnicity, religion, or other personal features. Sexual exploitation, abuse, and harassment at worksites are rare in Georgia, but the risk may not be entirely ruled out. Not all employers provide adequate housing, catering, sanitary conditions, and rest spaces at worksites. Poor living conditions at work camps may lead to the spread of infection and occurrence of non-communicable diseases.

Worksite Accidents

Physical works to be undertaken under the Project do not imply exposure to especially hazardous environment, explosives, radioactive or toxic substances. However, OHS risks are present at any worksite and may materialize in incidents of not properly managed. OHS threats associated with GRAIL Project implementation are conventional and relate to insufficient OHS risk assessment prior to commencement of works; inadequate planning and organization of worksite and poor housekeeping; lack of warning signage, demarcation, and protective fencing/barricading individual locations at worksite; operation of machinery in a poor technical condition or negligence of machinery operation guidelines; lack of workers' safety gear or its misuse may also cause accidents causing trauma or casualties.

Involuntary Resettlement

The project will not support construction of new irrigation and drainage infrastructure and hence, will not require much land take. However, reconstruction works may cause a need for acquiring small areas of land from private owners. Need for physical relocation is much less. Cleaning of canals and rehabilitating service roads may require terminating of informal encroachment into right-of-way and closing of informal water intakes. Project works may cause temporary restriction to the use of private land and other assets. Finally, accidental damage to private fences, gates, trees, etc. may occur during works near settlements. Project implementation plan will be developed the way excluding or minimizing canal rehabilitation works during irrigation/drainage season, to minimize disruption of service delivery to clients. However, if this may not be achieved, communities and individual water users may experience inconvenience of disruption in service delivery.

1.3. Impacts Expected in the Operation Phase

Economic impacts

Rehabilitation of irrigation and drainage schemes will have generally positive impact on the rural population engaged in agriculture through (i) resuming cultivation of previously farmed lands that said idle in the period of interrupted delivery of irrigation/drainage services; (ii)

increasing yields of crop production as a result of improved service delivery; and (iii) diversification into higher value crops requiring irrigation, thus improving household incomes and cash flow. Component 2 will result in more secure land rights, increasing the opportunity for farmers to sell or lease out their land, the value of which will have increased through irrigation and drainage improvement.

Administration of Service Delivery

GRAIL Project aims to assist the Borrower with the reform of water tariff policy towards gradual achievement of self-reliance of the service provider (GA) while keeping services affordable for water users and increasing fee collection. Furthermore, the Project will provide support in the establishment of WUAs for the improved management of tertiary and on-farm irrigation and drainage infrastructure. Improved accountability, optimized fees, and improved operation and maintenance of infrastructure are likely to stimulate more efficient water use and decrease of its loss through leakages.

Climate Resilience

Climate change impacts in East Georgia increasingly raise dependency of crop farming on irrigation service delivery. Higher frequency of occurrence and longer duration of draughts make growing of some crops impossible in certain areas or significantly disease yields unless irrigated. However, provision of irrigation infrastructure alone may not be sufficient for problem solving if scarcity of irrigation water becomes a bottleneck. GRAIL Project takes integrated approach to the challenges and plans to address both problems by rehabilitating of critical irrigation infrastructure and assisting with the adoption of advanced irrigation technologies characterized with efficient water use. The Project will also provide technical assistance and small grants for the adoption of climate-smart agricultural technologies.

Competition for Water Use

Implementation of the GRAIL Project will not directly influence competition for water use, because rehabilitation of schemes under the Project will not imply tangible increase of water intake by the schemes. However, operation of the rehabilitated schemes in future may be affected by intensified water use upstream, or economic development downstream may cause increase demand for water which will be limited during irrigation season due to operation of irrigation schemes. This may potentially trigger conflicts between water users and hinder growth unless watershed management planning is consistently applied. Also, conflicts may arise due to dissatisfaction of water users served by the schemes that were not selected for rehabilitation.

Erosion, Salinization, and Water Logging

Breakdown of hydraulic structures and canals, as well as their congestion may cause overflow and local flooding in the command area that leads to soil erosion. Erosion may also result from excessive water supply through flood irrigation. Some areas under food irrigation require existence and proper operation of drainage systems. Otherwise, they are prone to water logging. Application of the flood irrigation method in the areas with highly percolating soils, high

ground water table and saline lower layers of soil are likely to cause salinization of agricultural fields. Level of mineralization of the irrigation water in Georgia is favorable and does not cause risks of negatively affecting soil quality.

Increased use of Pesticides

Rehabilitation of the irrigation infrastructure will result in better yields, may lead to diversification of crops, and eventually increase incomes of rural families from agriculture. Along with highly positive social impacts of the above, activation of agro-production in better irrigated areas and land plots brought back to production as a result of resumed irrigation services may lead to increase in use of agrochemicals. Handling and application of pesticides carries risks to the heath of people exposed to pesticides, consumers of the products farmed with the use of pesticides, and may damage environment (soils, surface water, and ground water) with hazardous pollutants.

Systemic or Accident-related Deterioration of Irrigation Water Quality

For vast majority of irrigation water intakes in Georgia, no industrial point sources of pollution are located upstream. Neither there are highways and large bridges where accidents with hazardous cargo vehicles may occur. The only type of systemic pollution of irrigation water occurring in Georgia is from extractive industry. Occurrence of water pollution from extraction is low as the industry is modest in scale, however, the risks are high, especially as environmental regulations applied to mining sector are relatively weak and so is their enforcement.

Damage of Aquatic Ecosystems as a Result of Water Intake and Discharge

GA operates based on permitted volumes of water intake defined by MEPA. However, this permitting system is not based on the EIA of the planned intake. There is no national standard or formally adopted methodology for defining an ecological water flow to be maintained in natural water bodies by any types of water users. No State control is exercised over the quality of water drained from agricultural fields. Therefore, the risk of damage to river ecosystems from water intake and discharge by irrigation schemes does exist.

Damage or failure of reservoir dams

The Protect will not support works on irrigation reservoir dams. Only procurement of de-silting machinery is intended for Narekvavi reservoir. However, several irrigation schemes shortlisted for the Project support have reservoirs upstream and operation of these schemes depends on the good technical condition of dams. Furthermore, failure of those dams may threaten lives and properties of irrigation water users. Not all these reservoirs are likely to have proper instrumentation for monitoring their structural integrity and emergency preparedness plans for taking well-organized prompt action if the emergency strikes.

Contingent Emergency Response Component

GRAIL Project design incudes CERC that may be activated at any time into Project implementation in case an eligible crisis or emergency, such as a natural disaster involving a

formal declaration of a national or regional state of emergency, or a formal request from the Government of Georgia in the wake of a disaster, pandemic, or an armed conflict. Environmental and social risks related to CERC implementation include harming health and well-being of workers and the affected communities; damaging vegetation, landscapes, and ecosystems in the course of rapid implementation of emergency works, and storage/disposal of debris generated during disaster; and failure to undertake second tier mitigation measures agreed to apply once the emergency event is over.

8. RISK MANAGEMENT AND IMPACT MITIGATION

Most risks related to the construction and operation phases of the Project may be effectively mitigated, and only minor negative residual impacts are likely to persist. Mitigation measures are defined for the design, construction, and operation phases. ESMF presents a generic set of mitigation measures. Site-specific ESMPs will provide mitigation measures selected from this set, tailored to the specificity of each individual scheme and with greater level of detail.

8.1 Design Phase

Environmental and social considerations will be mainstreamed the process of producing detailed designs of the selected irrigation and drainage schemes to avoid or minimize any negative impacts (e.g., decreasing area requiring tree cutting) and maximize positive impacts (e.g., decreasing demand for energy and water) of rehabilitation. Detailed designed documentation will include analysis of water availability and suggested volumes of ecological water flow to be respected during operation of water intakes. MEPA's requirement is to retain at least 10% of the natural water flow at all times. The package of final design documents will also include a list of suggested quarries and vendors of natural construction materials in the vicinity of subproject sites; suggested sites for temporary and final disposal of spoil and construction waste; suggested locations for access roads, construction camps, vehicle and machinery servicing, and storage facilities as required.

Back Sea coast ecosystem may be affected by discharge from drainage canals if loaded with organic matter and residues of agrochemicals. If rehabilitation of the shortlisted drainage scheme is confirmed for the Project intervention, design options allowing partial treatment of drained water will be explored, including arrangement of artificial wetlands or designing of canals permissive for vegetation growth.

8.2 Construction Phase

Vegetation Clearance and Preservation of Biodiversity (aligned with ESS 1 and ESS 6)

Vegetation clearance in the Project impact zone, including clearing of right-of-way and open canals, will be preceded by inventory of trees belonging to both – wild growing and or cultural species. A need for extracting trees of Red List species will be identified and the use of fruit-bearing trees by local residents will be explored. This information will be used to make due payments established for the removal of specimen of Red Listed species from the nature and for considering due compensation for economic impact on communities.

Removal of vegetation, particularly trees, will be kept to essential necessity, which is allowing free passage of water and providing access roads for construction phase and servicing roads for future maintenance needs. Excessive clearing or unnecessary damaging of vegetation will be prohibited. This would include restriction of vehicle movement to the designated routes, as opposed to free crossing of terrain in and around worksites.

If any works are to be undertaken in the territory of the State Forest, PIU will obtain the special forest use permission from NFA. If works in the State Forest territory include tree

cutting, PIU will obtain permission for special tree cutting from NFA as well.

If any works are to be undertaken within or in immediate proximity to nationally or internationally designated protected areas, MEPA PIU will check whether planned interventions are permitted in the given categories of protected areas and will apply for formal permission to undertake them from the authorities administering them. If Project interventions require undertaking works in the Emerald Sites, a focused assessment of possible impacts on the involved Emerald Site will be undertaken if requested upon MEPA's request. Under any circumstances, no activities negatively affecting critical or natural habitats will be supported from the Project.

Noise, Vibration, and Emissions (aligned with ESS 4 and ESS 5)

Noise propagation from the operation of construction machinery will be managed by ensuring good working condition of the equipment, prohibition of engine idling, and disallowing operation beyond working hours (especially in proximity to settlements). Dust emissions will be managed by watering worksites during conduct of dust-generating activities and washing tires of construction vehicles and machinery as required. Also, transportation of construction materials and waste will be allowed under covered trucks only. Quality of fuel used for the operation of construction vehicles and machinery will be monitored and adherence to the established standards will be ensured.

If deteriorating old rural residential houses are located in the vicinity of the construction sites, special markers will be installed on the cracking walls, allowing to monitor aggravation of structural integrity of buildings in the relatively short period of construction activity. This information will be used for resolving possible disputes over the claims of local residents on vibration generated from construction sites affecting their houses and calling for compensation by the Project proponent. If attribution of damage to construction works is established, owners will be compensated based on the principles set forth in the Resettlement Policy Framework of GRAIL Project.

Earthworks (aligned with ESS 1)

Earthworks carry most risks to the landscapes and may cause erosion. To avoid or minimize these negative impacts, the following practices will be applied:

- Strip and store topsoil separately to apply later for site reinstatement;
- Pile up excavated earth separately from topsoil, in the convenient location clear of vegetation;
- Install warning signage and fencing, if appropriate, around excavations;
- Minimize the time of keeping the excavations open;
- Use excavated material for backfilling to the extent its morphology permitting and volume required;
- Remove excess material the preliminary agreed upon location;
- Reinstate the work site by spread topsoil and stimulating re-vegetation.

Chance Find Procedure (aligned with ESS 8)

Chance finds may be encountered during conduct of earth works. If works are undertaken near the known archaeologic sites, preliminary archaeologic examination will be undertaken at the worksite and excavation undertaken prior to commencement of works. In case of a chance find, works contractor is obligated to take all physical activity on hold and immediately notify technical supervisor. The latter passes on the information to the project proponent/employer (MEPA PIU in this case). MEPA formally notifies NACEP under the Ministry of Culture, Sports, and Youth. NACEP will organize site examination by qualified professionals, confirm cultural/historic value of a find, and organize rapid excavation at the site, if the find is movable. MEPA, through technical supervisor of construction works, will cooperate with NACHP within the frames of its mandate, facilitating on-site activity of NACHP. The latter will formally notify MEPA on the completion of their activity and authorize resumption of works. If the find is an immovable property, then Government of Georgia, based on the recommendation from the Ministry of Culture, Sports, and Youth, will take decision on resumption of construction works as designed, undertaking design changes to avoid damage to the find, or discontinuing works in the interest of preserving the find.

Construction Waste Management (aligned with ESS2 and ESS 3)

Hazardous and non-hazardous waste from construction works will be stored separately at worksites. Construction contractor, with support of technical supervisor and MEPA PIU will examine options for the final disposal of non-hazardous construction waste early in the contract life. If private landowners are willing to accept waste in their plots, formal agreement will be signed with them prior to waste delivery. If local government allocated sites on the land owned by municipally, a formal communication will be obtained for this arrangement as well. PIU environmental and social specialists will double check that waste disposal to the allocated site is safe for people and the environment. If these options do not work, contractor will apply to the National Agency of State Property under MESD. Unauthorized disposal of waste will be strictly prohibited. Disposed construction waste will be reinstated to the feasible level for harmonization with the landscape.

OHS specialists of PIU and technical supervisor will provide training on safe handling of asbestos-containing waste to the contractor's team. Safety requirements will include wearing of full protective gear – special clothing, boots, gloves and hoods; wearing of respirators and protective goggles; watering of surfaces to be operated during handing of asbestos; minimizing fragmentation of asbestos-containing structures to avoid unnecessary generation of dust; packaging and marking asbestos-containing waste; providing safe on-site storage for asbestos-containing waste; and using covered or closed trucks for transportation to the sites of final disposal. Sanitary landfills operated by the Solid Waste Management Company of Georgia accept asbestos-containing waste. Timely arrangements will be made with the closest landfill and a formal agreement signed. MEPA will lead information campaign targeting local communities to achieve their understanding of health treats of asbestos and consent on out-transporting of asbestos-containing pipes for safe disposal.

Other types of hazardous waste, such as used tires, batteries, and lubricants from construction vehicles and machinery will be handed over to specialized companies for destruction/deactivation or recycling as authorized. Contracts with such companies will be signed timely, so that waste is not retained at construction sites for extended periods of time.

Managing Excess Material (aligned with ESS 3)

Examination of options for the disposal of excess material will start early into construction works, knowing that search for and formalization of arrangements may take long. Sanitary landfills are not obligated to receive excess material, but may be willing to take it up in limited amount for the use in the operation of landfill. Other options are disposal in a private land plot, a plot owned by local municipality, or a plot of the State-owned land. Formal procedures for following the latter option are most cumbersome, hence, disposal in private or municipal areas will be given priority. Sites of material disposal will be compacted, countered, and harmonized with the landscape to the extent possible. Material will not be disposed in the locations where stockpiling may pose threat to human or environmental health.

Managing Construction Runoff (aligned with ESS 3)

In order to minimize pollution of land, and surface and ground water, priority will be given to servicing of construction vehicles and machinery in service centers. If servicing is to be provided at the construction site, location most remote from natural water bodies will be selected. Sites for storage of oil and lubricants and servicing of vehicles and machinery will have impermeable flooring and be confined so to prevent release of operation and accidental spills. If work camps are established, they will be equipped with septic tanks or pit toilets, and relevant servicing will be provided to maintain good sanitary conditions and to avoid pollution of water and ground water. Concrete batching plants must be provided with sedimentation pools of relevant parameters, so that settlement of solid particles can effectively take place prior to waster release.

Sourcing of Natural Construction Material (aligned with ESS 6)

Construction works under the Project will require supply of sand and gravel. Preference will be given to purchasing of material from authorized external suppliers. If contractors opt to extract material themselves, PIU will ensure they hold extraction licenses obtained from the NAMR. Towards obtaining of a license, applicant is required to develop the mining site reinstatement plan and agree it with MEPA. Environmental and social specialists of PIU will review these plans for quality and undertake track their timely implementation. Contractors will be contractually obligated to avoid extraction of sand and gravel from riverbeds.

Community Health and Safety (aligned with ESS 4 and ESS 10)

Contractors will be required to produce, agree with employer (MEPA), adopt, and adhere to the Code of Conduct. Each employee of contractor will read through and sign off the Code confirming commitment to respect requirements of this document. Contractor's personnel will be additionally instructed on behavior outside the worksites where they come in contact

with local residents. Contractors will develop and include community communication plan into C-ESMPs and implement it throughout the contract life. Requirements to be met by contractors will be made equally mandatory for sub-contractors. Local residents will be informed on the timing and nature of works to be undertaken. GM will be in place to allow project-affected persons (PAPs) voicing their concerns, submit complains, and ask questions. MEPA will operate Project GM to ensure timely and due consideration of all entries, their documenting, and their timely closure.

Works contractors will also be requested to develop for the inclusion to C-ESMP, periodically update, and implement traffic management plans. Speed limits will be established for movement of construction vehicles within and outside settlements. All vehicles will be kept in good working condition by regular checkups and timely servicing.

If contractors choose to use security services, PIU will undertake background check to screen service providers for any past violation of mandate and abuse of power. Performance of security personnel will be closely monitored.

Labor Management (aligned with ESS 2)

Project LMP will be respected at all workplaces related to GRAIL Project implementation, including PIUs, consultant firms, and construction companies. Contractors will be required to develop their own LMP in line with the Project LMP and strictly adhere to it. Contractors will conclude formal work agreements with all personnel and manage workers in agreement with the Labor Code of Georgia and LMP. Forced labor, child labor, any form of discrimination and abuse will be prohibited at worksites. Contractors will be responsible for giving fair wages to their employees and timely pay them, including for overtime; allowing break during the working day and between shifts; providing decent dormitories for workers if they stay at workcamps, as well as adequate sanitation, catering, and resting spaces.

Contractors will be required to develop, adopt, and operate GM for their personnel, including special channels for redressing grievances related to sexual exploitation, abuse, and gender-based violence.

OHS management (aligned with ESS 2)

Works providers will be contractually obligated to adopt and comply with good OHS management practice. This will imply worksite risk assessment, planning and organization of worksites, good housekeeping, provision and enforcement of the use of personal protective equipment, insuring health and life of all personnel. Training workers on worksite risks, safe behavior at worksites, and technique of applying OHS measures will be delivered on systemic basis. This will include induction training, periodic training on particular aspects of OHS, and daily toolbox talks. OHS specialists of technical supervisor and PIU will check and endorse OHS training plans for personnel to be delivered by contractors and will also periodically deliver training to contractors.

Contractors will be required to have properly functioning fire extinguishing equipment and

first medical aid kits on site. They will prepare emergency action plans and technical supervisor and PIU will periodically check contractors' preparedness to implement these plans. Emergency action plans will include provisions for acting in case of COVID infection outbreak.

All OHS incidents, accidents and near-misses will be recorded, and information used for adjusting OHS arrangements and training plans. In case of incidents resulting in damage of human or environmental health, PEMA PIU will notify the World Bank within 48 hours from learning about it and will cooperate with the World Bank by ensuring conduct of Root Cause Analysis with more granular information on the incident. A plan of corrective actions will also be developed, agreed with technical supervisor and the World Bank, and implemented to address root causes of the subject incident.

Involuntary Resettlement (aligned with ESS 5)

If land acquisition, physical relocation of residents, or other forms of involuntary resettlement is required under Component 1 of the Project, MEPA PIU will prepare RAP or an abbreviated RAP, as required, following RPF. RAPs will be developed in a participatory manner, disclosed, and discussed with PAPs. RAPs will be agreed with the World Bank and implemented prior to mobilization of contractor to the individual worksite. RAP implementation report will be produced and, also, agreed with the World Bank, after which commencement of works will be authorized. MEPA will support legalization of property in the name of PAPs if their property is not formally registered that hinders payment of compensations as per national legislation. In case of physical relocation and economic displacement, livelihood restoration options will be explored, agreed with the PAPs, and implemented to ensure that no one is worse off as a result of GRAIL Project implementation.

8.3. Operation phase

Mediating Competition for Water Use

Publicly acceptable order of priority followed by the Government implies meeting of demand for potable water supply first, followed by agricultural and industrial needs. The largest industrial water user is the hydropower sector. Some small hydro power plants (HPPs) intake water from the same reservoirs as those used by the irrigation schemes. If water sources used to feed Project beneficiary irrigation schemes are shared with HPPs or other industrial users, MEPA will facilitate signing of water sharing agreements ensuring that in case of water scarcity, priority is given to water use for irrigation purposes. The adoption of the new Water Law will introduce basin-based planning and management of water resources that would help to better regulate multiple types of water use and to avoid conflicts.

Affordability and Reliability of Services Provided through the Rehabilitated Schemes

GRAIL Project interventions in support to institutional reforms will follow the national Irrigation Strategy 2017-2025 worked out with technical assistance from GILM Project and adopted by the Government of Georgia, adhere to the principles of the Law of Georgia on the

Water User Organizations passed in 2019, and be informed by the experience gained through the previous attempts of stimulating cooperation of water users at the local level. Policy and institutional changes will be planned and undertaken transparently and in a participatory manner following guidance of the Project SEP.

Ensuring Safety of Dams (aligned with ESS 4)

Although GRAIL Project does not finance construction or rehabilitation of dams, safe and smooth operation of irrigation schemes selected for the Project interventions will depend on the integrity of dams upstream of these schemes. Furthermore, integrity of those dams would guarantee safety of Project beneficiary water user farmers. Therefore, MEPA will undertake assessment of dams that are not already covered by pre-feasibility study conducted under the ongoing ILMD Project and will close any identified gaps. This may include procurement and installation of instrumentation needed for monitoring critical parameters of dams, development of Emergency Preparedness Plans, and making institutional arrangements for emergency response – all based on the recent experience from dam safety enhancement activities undertaken on Sioni and Algeti dams under GILMD Project.

Managing Erosion, Salinization, Alkalization, and Water Logging (aligned with ESS 1)

To prevent the erosion of lands in the irrigation command area, anti-erosion measures will be undertaken on arable lands during cultivation. This would imply sowing crops horizontal to slope inclination, applying dense sowing of the crops, furrowing and bedding, irrigating by short furrows. Proper maintenance of irrigation schemes by GA and, later, by WUOs as well, will be essential for minimizing water filtration and leakages, which are significant causes of erosion. Congestion of canals and break-down of hydraulic structures should also be prevented by regular check-ups and timely maintenance, as they may cause flooding and waterlogging of agricultural areas. Water logging from excessive water supply is likely to decrease by providing relevant incentives through the reform of water tariff policy, and by promotion of and assistance in the acquiring of modern, optimized irrigation technologies (drip irrigation, sprinkle irrigation, etc.).

Protection of Aquatic Ecosystems (aligned with ESS 6)

Designs and operational arrangements for GRAIL Project beneficiary irrigation schemes will be made with consideration of nationally applied rule that requires retention of at least 10% of natural water flow in the rivers at all times. Furthermore, designs will be developed with consideration of prioritizing retention of natural seasonal dynamics of water flow (high and low water periods) during operation of the schemes. In the operation phase, GA will ensure that schemes are operated as designed and the 10% rules is strictly complied with. Unauthorized extraction of water from the schemes that would increase demand for water intake from headworks or create its shortage for formal users of services, will be strictly disallowed.

Safe Use of Pesticides and IPM (aligned with ESS 3)

Improving irrigation service delivery through rehabilitation/reconstruction of the selected schemes is likely to enhance intensity of agriculture and bring back to cultivation some areas abandoned due to discontinued irrigation as a result of deteriorated infrastructure. This may lead to increased use of fertilizers and pesticides. In order to reduce public health and environmental risks of excessive, unsafe, or improper use of pesticides, the Project will support development and delivery of extension and training material for sound pest and pesticide management to the water users of the Project area. Support will include provision of information on the Integrated Pest Management principles and guidelines on safe storing, handling, and application of pesticides.

Managing Risks Associated with Service Delivery

In order to prevent pollution of agricultural lands and agricultural produce with toxic compounds, GA should have access to reliable same time information on the quality of water in natural bodies, from where the irrigation water is abstracted. Towards this end, GRAIL Project will support enhancement of cooperation between NEA which is the generator and depository of waste quality information in Georgia, and GA. This cooperation will go beyond establishing smooth exchange of water quality information but will also include support to NEA in the development of specialized services for GA, such as forecasting of draught and flood risks and setting up an operational early warning system.

9. INSTITUTIONAL ARRANGEMENTS AND CAPACITY BUILDING FOR ESMF IMPLEMENTATION

Georgia, represented by the Ministry of Finance, is the recipient of the World Bank loan for the implementation of GRAIL Project and MEPA and MoJ through NAPR are designated by Georgia as project implementing agencies. Therefore, MEPA and NAPR carry responsibility for implementing GRAIL Project as set forth in the General Conditions applicable to the World Bank loans, Legal Agreement on the GRAIL Project implementation, and the Environmental and Social Commitment Plan (ESCP) for the Project. ESCP is fully dedicated to ESHS aspects of the Project implementation and is legally binding for the Borrower. These aspects are spelled out in greater detail in the present ESMF.

Both MEPA and NAPR will maintain PIUs for the purposes of Project implementation. Because physical works and other activities that carry environmental and social risks are to be administered by MEPA, PIU under this Ministry will employ at least one environmental specialist, once social specialist, one OHS specialist, and one community liaison specialist. TORs of these specialists will be agreed with the World Bank.

GRAIL Project was prepared and will be implementing following World Bank's ESF. Neither of the implementing agencies have experience in undertaking projects with the application of ESF, hence PIU will heavily relay on external consultant to be recruited for the Project implementation purposes. Furthermore, because ESF has been adopted the fall of 2018, there is no amplitude of well-qualified specialists in the labor market. Therefore, PIU will require on-the-job training and support to cope with the challenges of environmental and social management of the Project. This will include participation of PIU's environmental, social, and OHS specialists in short-term virtual and face-to-face structured training sessions, training on individual ESSs or particular issues under ESSs tailored to the needs of PIU, as well as recurrent guidance from the environmental and social specialists of the World Bank's team.

Technical supervision consultants will supplement PIU's in-house capacity for ESMF implementation. TORs of these consultants will be agreed with the World Bank. TORs will include clearly spelled out tasks of consultant in the fields of managing environmental and social performance of works contractors, providing professional support and guidance to contractors on the ESHS, and reporting to the employer (MEPA). Technical supervisors will be mandated to timely identify any ESHS issues that may arise during Project implementation, and support contractors in addressing such issues. Should contractors fail to take prompt and satisfactory corrective action, technical supervisors issue written notices to works contractors and follow up thereafter. In the event of lasting failure of contractors to implement corrective actions, technical supervisors must escalate the case to the employer (MEPA) and recommend managerial action for addressing the problem.

The World Bank provides Project implementation support to the Borrower throughout the Project life, that includes review and approval of TORs and bidding documents to ensure due incorporation of ESHS aspects in these documents, site-specific environmental and social

instruments to be prepared for subprojects, and quarterly implementation progress reports of MEPA that will include ESHS performance chapter. World Bank may request and review monthly progress reports from the technical supervisor to MEPA. World Bank team will undertake periodic field visits to the Project sites for stocktaking, quality control, and problem shooting.

10. SUPERVISION, MONITROING, AND REPORTING

MEPA and MoJ through NAPR have overall responsibility for the consistency of Project implementation with the ESMF. Buck of supervision and monitoring work is with MEPA because physical works carry most environmental, social, health and safety risks and physical works are undertaken under the Project subcomponents administered by MEPA.

Environmental, social, and OHS specialists of MEPA will collectively carry out environmental and social monitoring of Project-financed activities and manage performance of hired consultants and works contractors. Towards this end, these PIU specialists will engage from early stage of subprojects' preparation. Working with design consultants, PIU environmental and social specialists will ensure that designs are sensitive to expected generic risks and impacts of Project activities outlined in the present ESMF and incorporate risk mitigation measures into the preliminary designs. Later, the specialists will ensure that the final designs are informed by findings of site-specific environmental and social studies.

PIU environmental, social, and OHS specialists will work with procurement colleagues to ensure that due environmental, social, health and safety (ESHS) requirements for contractors are incorporated in the bidding documents and will help procurement team in the assessment of bids looking at the ESHS aspects. Environmental, social, and OHS specialists of PIU will participate in the development of TORs for technical supervision consultants to be hired by PIU for the oversight of works and will ensure that ESHS supervision function is well articulated in the TORs.

Once works contractors are selected, environmental, social, and OHS specialists of PIU, jointly with technical supervision consultant, will work with them to help with the completion and assure quality of contractors' ESMPs (C-ESMPs). Their role will be important in indicating a need for C-ESMP update to contractors and supervising the process of ESMP revision and approval.

Both contractor and technical supervisor of works will be required to employ environmental, social, and OHS specialists present at worksites to guide construction workers and provide training, as required. Contractor will report to the technical supervisor on all aspects of undertaken works, including ESHS. Technical supervisors will verify information received from contractors and use it, along with their own observations made at worksites, to produce monthly progress reports to the technical supervisor and MEPA. Technical supervisors' reports shall include filled out monthly field environmental and social monitoring checklist (template provided in Attachment 5 to this ESMF). Environmental, social, and OHS specialists of PIU will undertake quality control of technical supervisors' performance by reviewing and commenting on their reports, undertaking planned and unannounced field visits to verify information provided in the reports, providing professional opinion and guidance on addressing any outstanding issues, and following up on the implementation of corrective actions. PIU specialists will use monthly progress reports from supervision consultant for quarterly reporting to the World Bank in MEPA's progress reports. PIU specialists will keep

monthly reports from technical supervisors on file and make them available to the World Bank upon request.

MEPA, through technical supervisors, will be responsible for promptly reporting to MEPA on any OHS accidents/incidents that may occur at worksites. First notice on an incident should be given to the World Bank within 48 hours from the instance technical supervisor/MEPA learn about it. A more comprehensive report with relevant technical details and Root Cause Analysis will be provided at a later time acceptable to the World Bank. OHS specialists of technical supervisor and PIU will work out Corrective Action Plan, agree it with the World Bank, and monitor its implementation.

11. GRIEVANCE MECHANISM

The main objective of a Grievance Redress Mechanism (GM) prepared by social consultant is to assist to resolve complaints and grievances in a timely, effective and efficient manner that satisfies all parties involved. GM is described in detail in the Project's. Specifically, it provides a transparent and credible process for fair, effective, and lasting outcomes. It also builds trust and cooperation as an integral component of broader community consultation that facilitates corrective actions.

GM addresses grievances in an efficient, timely and cost-effective manner, that arise in the Project under Component 1 either due to actions by MEPA or the contractor/sub-contractors employed by MEPA, from affected communities and external stakeholders. A separate mechanism is developed to address worker grievances. The process is described in Labor Management Plan (LMP). MEPA is responsible for managing the GM, but many of the grievances on the Project will likely relate to the actions of the Contractor and so will need to be resolved by the Contractor. MEPA with the support of the Implementation Consultant will administer the GM process deciding whether they or the Contractor is responsible and determining the best course of action to resolve the grievance. The Implementation Consultant will support MEPA to monitor grievance resolution being undertaken by the contractor.

The Project GM deals with the issues of land and other assets acquisition (e.g., amount of compensation, suitability of residual land plots, loss of access roads, etc.) as well as the losses and damages caused by rehabilitation works, and any direct or indirect environmental and social impacts. Therefore, GM has to be in place by the time MEPA starts preparation of RAPs and other site-specific environmental and social instruments and shall function until the completion of all civil work activities and beyond till the defect liability period ends. PAPs and other potential complainants should be fully informed of the GM, its functions, procedures, timelines and contact persons during consultations meetings and other stakeholder engagement activities.

All grievance related correspondence will be documented and the grievance resolution process will be systematically tracked.

Specifically, the GM:

- Provides affected people with avenues for making a complaint or resolving any dispute that may arise during the course of the implementation of the projects;
- Ensures that appropriate and mutually acceptable redress actions are identified and implemented to the satisfaction of complainants;
- Supports accessibility and transparency in handling complaints and grievances;
- Manages time factor (avoids the need to resort to judicial proceedings (at least at first).

Complaint and grievances are divided in this manner:

- Complaint: an expression of dissatisfaction that is related to an impact caused by a project activity, which has adversely affected an individual or group. The interests of an individual or group wants a proponent or operator (or contractor) to address and

resolve it (e. g. problems related to dust deposition, noise or vibration). A complaint is normally of a less serious nature than a grievance; and

- Grievance: a claim raised by an individual or group whose livelihood, health and safety, cultural norms and heritage are considered to have been adversely affected (harmed) by a project activity which, if not addressed effectively, may pose a risk.

Typical grievances under component 1 may relate to:

- Land acquisition and physical displacement;
- Civil work damages;
- Environmental impacts; and
- Direct and/or indirect social - economic impacts.

As a Governmental Structure, the grievance practice at MEPA is based on the General Administrative Code of Georgia. As part of the project, MEPA will modify the GM practice to allow a PAP (Project Affected Person) to complain about any decision about concerns regarding the project. All types of grievances will be recorded by the GM. Anonymous grievances will also be accepted, recorded, and investigated to the extent feasible.

GRM will include following Steps:

Step 1: Submission of grievances either in writing via through telephone hotline/mobile, mail, social media (FB etc.), website, grievance logbook via a contractor organization and directly to the MEPA. The GM will also allow anonymous grievances to be raised and addressed.

Step 2: Recording of grievance, classifying the grievances based on the typology of complaints and the complainants in order to provide more efficient response, and providing the initial response immediately as possible. The typology will be based on the characteristics of the complainant (e.g., vulnerable groups, persons with disabilities, people with language barriers, etc.) and also the nature of the complaint.

Step 3: Grievance can be investigated in three stages, namely:

Grievance Resolution Committee (Stage 1)

Stage 1, of the GM involves an informal (oral) review of the complaint (whether written or oral). A local Grievance Resolution Committee (GRC) will be established in Municipality, with an office in the municipal building. Once a standing grievance has been logged, the corresponding local GRC will be engaged to define a solution to solve the grievance. At this stage the grievance is reviewed in an informal (oral) way and the Grievance Redress Committee members make and sign the minutes on the matter. If at Stage 1 the PAP's complaint is not resolved the PAP is informed about grievance resolution procedures of Stage 2. A PAP has the right to use the procedures of Stage 2 without applying to Stage 1 procedures. Timeframe for resolving the stage 1 grievance is 7 days. The GRC shall convene as per necessity (but at least once a month) and shall include eight members. Special

provisions will be made for any complaints of a confidential nature. The GRC is an eight-member committee comprising of the following:

1) PIU Team member as a Committee coordinator;
2) Regional/municipal representative (from "Gamgeoba") as a Committee secretary;
3) Village attorney ("Rtsmunebuli") as a Committee member;
4) Representative of a PAP as a Committee member;
5) Woman – representative of the Project Affected Household (AH) as a Committee member;
6) Representative of local non-government organization (NGO) taking into account the grievance character – as a Committee member;
7) Local specialist of social and environmental safeguards from the Supervision Consultant – as a Committee member;
8) Local specialist of social and environmental safeguards from the Construction Company – as a Committee member.

Members of the GRC will be invited in accordance with the types of complaints to be addressed. The meeting will start without the complainants by reviewing all PAP complaints received since the last GRC meeting, and to propose a solution to all grievances within the past one or two weeks. Then, the GRC will welcome the complainants whose grievances had been reviewed during the previous meeting to discuss proposed resolution.

For each grievance, the GRC will determine whether additional investigations are warranted. If so, additional information will be collected before the next GRC meeting and will also be provided to the PAP before the meeting. The GRC will then inform the PAP about the date, time and place of its review meeting, and invite the PAP accordingly.

The GRC will receive the complainant and discuss with them a solution to their grievance. The committee shall draw up and sign the minutes of their discussion on the matter. If the grievance is satisfactorily resolved, the PAP will also sign the minutes in acknowledgement of the agreement. In cases where the project has agreed to put in place additional measures, these will be specified, with a timetable for delivery, in the minutes of the meeting. If the grievance remains unresolved, the PAP will be explained the Stage 2 escalation process.

Grievance Resolution at Central Level (Stage 2)

In this stage, the grievance will be reviewed at the MEPA level. Unsolved grievances at Stage 1, with the complainant's consent, will be sent to MEPA in written form. Similarly, aggrieved complainants/PAPs dissatisfied with the GRC decision, can escalate their grievances to MEPA at the PIU Level. The GRC will assist him/her in lodging an official complaint. MEPA's GM Focal point will review the written complaints of PAPs, which were not satisfied at Stage 1 and send them internally to the appropriate departments for redress. The timeframe for referral is 10 days. The complainant shall be informed of the decision within a maximum of 30 days, in accordance with the response time stipulated in the Administrative Code of Georgia.

MEPA's Grievance Redress Commission (Stage 3)

If the grievance continues to be unresolved at Stage 2 by the appropriate department, it will be presented to MEPA's Grievance Redress Commission. The Grievance Redress Commission will review and decide upon the grievance in compliance with the Administrative Code of Georgia. The complainant shall be informed in writing of MEPA's decision. If MEPA's decision fails to satisfy the aggrieved affected persons, they can pursue further action by submitting their case to the appropriate court of law. The composition of the Grievance Redress Commission is as follows:

1) Member of Board of MEPA (Head of the Grievance Redress Commission);
2) PIU Team Leader (Deputy Head of Commission);
3) GRM Focal Point within in PIU (member);
4) Head of Legal Division (member);
5) Head of Resettlement Division (member);
6) Head of International Projects Division (member);
7) Head of Technical Supervision and International Projects Planning Division (member);
8) Resettlement and social issues consultant (member);
9) Environmental consultant (member).

11.1 Closure of Grievances

A grievance will be considered "resolved" or "closed" when a resolution satisfactory to both parties has been reached, and after corrective measures has been successfully implemented. When a proposed solution is agreed between the Project and the complainant, the time needed to implement it will depend on the nature of the solution. However, the actions to implement this solution will be undertaken within one month of the grievance being logged and will be tracked until completion. Once the solution is being implemented or is implemented to the satisfaction of the complainant, a complaint closes out form will be signed by both parties (MEPA - PIU Team and the complainant), stating that the complainant considers that his/her grievance is closed. The grievance then, will be archived in the Project Grievance database. A detailed grievance logbook will be maintained and submitted to the World Bank team.

In certain situations, however, the Project may "close" a grievance even if the complainant is not satisfied with the outcome. This could be the case, for example, if the complainant is unable to substantiate a grievance, or it is obviously speculative or fraudulent. In such situations, the Project's efforts to investigate the grievance and to arrive at a conclusion will be well documented and the complainant advised of the situation. PIU team will not dismiss grievances based on a cursory review and close them unless the complainant has been notified and had the opportunity to provide supplementary information or evidence.

11.2 Grievance Records and Documentation

MEPA will nominate a GM Focal Point to manage a grievance database to keep a record of all grievances received. The database will contain the name of the individual or organization lodging a grievance; the date and nature of the grievance; any follow-up actions taken; the

solutions and corrective actions implemented by the Contractor or other relevant party; the final result; and how and when this decision was communicated to the complainant.

Supervisor and construction companies in their monthly monitoring reports will provide information on grievance management. Grievance monitoring and reporting will occur in MEPA's six-monthly and annual public reports.

GRM Focal Point Contact Information.

The point of contact regarding grievance management and the local stakeholder engagement activities is the PIU GM Focal Point:

Description	Contact Details
Project Implementing Unite	Ministry of Environmental Protection and Agriculture -MEPA
To:	GRM – Focal Point Sophie Berishvili
Address:	6 Marshal Gelovani street, Tbilisi 0159, Georgia
E-mail:	Sophie Berishvili
Website:	https://mepa.gov.ge/
Telephone:	599270049

Information on the Project and future stakeholder engagement programs will be available on the PIUs website and will be posted on information boards in affected villages in the Project area. Information can also be obtained from the GM Focal Point.

12. INFORMATIN DISCLOSURE AND CONSULTATION

The Stakeholder Engagement Plan (SEP) for the GRAIL Project is developed by social consultant in accordance with the World Bank requirements. The objective of the SEP is to effectively engage with all stakeholders under component 1 and 2, who have an interest in or may be affected by the Project.

The involvement of the local population, SME agribusinesses and farms as well as all other interested parties is essential to the success of the project, to ensure smooth collaboration between project staff and local communities, minimize and mitigate environmental and social risks related to the project, as well as expand project benefits to all targeted beneficiaries including ones that may be traditionally vulnerable, disadvantaged, disproportionally affected by the project activities.

The purpose of the present SEP is to outline the target groups and methods of stakeholder engagement and the responsibilities in the implementation of stakeholder engagement activities, under Component 1 and 2 The intention of the SEP is to activate the engagement of stakeholders in a timely manner during project preparation and implementation phase. Specifically, SEP serves the following purposes:

i. stakeholder identification and analysis;
ii. planning engagement modalities and effective communication tools for consultations and disclosure;
iii. defining role and responsibilities of different actors in implementing the SEP;
iv. defining the Project's GRM;
v. providing feedback to stakeholders;
vi. monitoring and reporting on the SEP.

The SEP seeks to define an appropriate approach to identify relevant stakeholders and achieve their full engagement. The goal of this SEP is to improve and facilitate decision making process and includes active involvement of stakeholders and other parties. The SEP is a useful tool for managing communications between PIUs and its stakeholders.

Complete documentation will be maintained for the entire ESMF implementation process. The ESMF shall be uploaded on the project websites. The ESMF shall be disclosed internally within the Bank and shall be released in Info Shop. Before approval of the project, the ESMF shall be translated in local languages and shall be communicated to stakeholder communities.

The consultation and participation process of the stakeholders and beneficiaries will include four phases: (i) information disclosure and data collecting; (ii) preparation and planning of operations; (iii) implementation of operations; and (iv) monitoring and evaluation.

Information Disclosure and Filed Assessment Phase

Actors: MEPA, NAPR, GA, Sectoral Organizations, independent consultants. The actors will constitute the main task force in the data-collecting phase. This process will include consultations with PAPs and other relevant stakeholders. The field assessment will be carried

out using above-described focus group discussions techniques. PAPs will be consulted to participate in the process by providing socio-economic information about their livelihoods. Also, PAPs will be consulted through meetings with village committees to share information about the PIU, discuss the social impacts of project operations and the mitigation measures suggested. The contributions of the PAPs will be integrated into the subproject implementation process, from planning to evaluation.

Planning Phase

Actors: MEPA, NAPR, GA, PAPs (planning inputs, sounding board and advice-giving), representatives of local communities. Planning and coordination of the tasks of the various actors is the key to a successful implementation of the compensation arrangements. The PAPs will be consulted in the aim to obtain their positions on issues at stake. The requirements of their work programs/businesses activities will be incorporated into the compensation plans. The work will focus on: (a) taking stock of the legal framework for compensation; (b) settling institutional arrangements and mechanisms for payment of compensation; (c) defining tasks and responsibilities of each stakeholder; and (d) establishing a work plan.

Implementation Phase

Actors: The principal actors are PIU as well as WB, PAPs (endorsement of arrangements). The execution of the compensation operations will be conducted by the PIU, through their contracted specialist team. PAPs will be consulted about the compensation arrangements prepared. Cash compensation amount and amount of land offered for compensation will be presented to each eligible PAP for consideration and endorsement before cash payment or land for land compensation can be affected.

Monitoring and Evaluation Phase

Actors: PIU, independent consultants, GA and Sectoral Organizations, and PAPs. The PIU will organize project completion workshops with government agencies, GA and Sectoral Organizations and representatives of PAPs after completion of the compensation operations. This RPF in Georgian will be disclosed on the MEPA website before Project appraisal. The RPF in Georgian will also be disclosed to the APs at the relevant Municipality office (Mayor) and at village administration (Sakrebulo) once subprojects are identified.

Its English version will be disclosed on the World Bank website prior to Project appraisal and after the RPF is endorsed by the PIU. Once a RAP for a subproject has been prepared and approved by PIU and the WB it will be disclosed at relevant local government offices. A pamphlet in Georgian, summarizing compensation eligibility and entitlement provisions, will be distributed to all PAPs and affected households before the initiation of the compensation/rehabilitation process and before signing contract awards. The consultation process will be continued throughout the Project cycle.

13. ATTACHMENTS

Attachment 1.
Checklist for Environmental and Social Screening and Classification of Subprojects

(A) IMPACT IDENTIFICATION

May the subproject have a high impact on the environment?	
What are the expected beneficial and adverse environmental impacts of subproject?	
May the subproject have high impact on the local communities and other affected people?	

(B) MITIGATION MEASURES

Were there any alternatives to the subproject design considered?	
What types of mitigation measures are proposed?	
What lessons from the previous similar subprojects have been incorporated into the project design?	
Have concerned communities been involved and how have their interests and knowledge been adequately taken into consideration in subproject preparation?	

(D) CONCLUSION

1. Subproject is declined[1] ☐
2. Subproject is accepted ☐

Subproject preparation requires undertaking of Environmental and Social Impact Assessment ☐

Subproject preparation requires Completion of the Checklist Environmental and Social Management Plan for Small Construction and Rehabilitation Activities ☐

[1] A high environmental and/or social risk/impact subproject is ineligible for the Project support. Only activities with moderate or substantial risks may be funded from the Project proceeds.

Attachment 2.
Checklist for Resettlement and Cultural Resource Screening of Subprojects

Resettlement screening information		Yes	No
1	Is the information related to the affiliation, ownership, and land use status of subproject site available and verifiable? (The screening cannot be completed until this is available)		
2	Will subproject reduce other people's access to their economic resources, such as land, pasture, water, public services, or other resources that they depend on?		
3	Will subproject result in resettlement of individuals or families or require the acquisition of land (public or private, temporarily or permanently) for its development?		
4	Will subproject result in the temporary or permanent loss of crops, fruit trees and household infra-structure (such as ancillary facilities, fence, canal, granaries, outside toilets and kitchens, etc)?		
If answer to any above question (except question 1) is "Yes", then **ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement** is applicable and mitigation measures should follow this ESS and the Project **RPF**			
Cultural resources safeguard screening information		**Yes**	**No**
5	Will the project require excavation near any historical, archaeological, or cultural heritage site?		
If answer to question 5 is "Yes", **then** possible chance finds must be handled in accordance **with relevant procedures provided in the ESMF**			

Attachment 3.
Environmental and Social Impact Assessment Report Outline

(a) *Executive Summary*
Concisely discusses significant findings and recommended actions.

(b) *Legal and Institutional Framework*
Analyzes the legal and institutional framework for the project, within which the environmental and social assessment is carried out, including the issues set out in ESS1, paragraph 26.
Compares the Borrower's existing environmental and social framework and the ESSs and identifies the gaps between them.
Identifies and assesses the environmental and social requirements of any co-financiers.

(c) *Project Description*
Concisely describes the proposed project and its geographic, environmental, social, and temporal context, including any offsite investments that may be required (e.g., dedicated pipelines, access roads, power supply, water supply, housing, and raw material and product storage facilities), as well as the project's primary suppliers.
Through consideration of the details of the project, indicates the need for any plan to meet the requirements of ESS1 through 10.
Includes a map of sufficient detail, showing the project site and the area that may be affected by the project's direct, indirect, and cumulative impacts.

(d) *Baseline Data*
Sets out in detail the baseline data that is relevant to decisions about project location, design, operation, or mitigation measures. This should include a discussion of the accuracy, reliability, and sources of the data as well as information about dates surrounding project identification, planning and implementation.
Identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions.
Based on current information, assesses the scope of the area to be studied and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences.
Takes into account current and proposed development activities within the project area but not directly connected to the project.

(e) *Environmental and Social Risks and Impacts*
Discusses all relevant environmental and social risks and impacts of the project. This will include the environmental and social risks and impacts specifically identified in ESS2–8, and any other environmental and social risks and impacts arising as a consequence of the specific

nature and context of the project, including the risks and impacts identified in ESS1, paragraph 28.

(f) *Mitigation Measures*

Identifies mitigation measures and significant residual negative impacts that cannot be mitigated and, to the extent possible, assesses the acceptability of those residual negative impacts.

Identifies differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable.

Assesses the feasibility of mitigating the environmental and social impacts; the capital and recurrent costs of proposed mitigation measures, and their suitability under local conditions; and the institutional, training, and monitoring requirements for the proposed mitigation measures.

Specifies issues that do not require further attention, providing the basis for this determination.

(g) *Analysis of Alternatives*

Systematically compares feasible alternatives to the proposed project site, technology, design, and operation—including the "without project" situation—in terms of their potential environmental and social impacts.

Assesses the alternatives' feasibility of mitigating the environmental and social impacts; the capital and recurrent costs of alternative mitigation measures, and their suitability under local conditions; and the institutional, training, and monitoring requirements for the alternative mitigation measures.

For each of the alternatives, quantifies the environmental and social impacts to the extent possible, and attaches economic values where feasible.

(h) *Design Measures*

Sets out the basis for selecting the particular project design proposed and specifies the applicable EHSGs or if the ESHGs are determined to be inapplicable, justifies recommended emission levels and approaches to pollution prevention and abatement that are consistent with GIIP.

(i) *Key Measures and Actions for the ESCP*

Summarizes key measures and actions and the timeframe required for the project to meet the requirements of the ESSs. This will be used in developing the ESCP.

(j) *Appendices*

List of the individuals or organizations that prepared or contributed to the environmental and social assessment.

References—setting out the written materials both published and unpublished, that have been used.

Record of meetings, consultations and surveys with stakeholders, including those with affected people and other interested parties.
The record specifies the means of such stakeholder engagement that were used to obtain the views of affected people and other interested parties.
Tables presenting the relevant data referred to or summarized in the main text.
List of associated reports or plans.

Attachment 4.
Template for Checklist Environmental and Social Management Plan for Small Construction and Rehabilitation Activities

General Guidelines for use of ESMP checklist:

For low-risk topologies, such as broadband internet network arrangement activities, the World Bank safeguards team developed a streamlined approach to preparing ESMPs for minor rehabilitation or small-scale works in building construction, in the health, education and public services sectors. The checklist-type format has been developed to provide "example good practices" and designed to be user friendly and compatible with ESF requirements.

The EMP checklist-type format covers typical core mitigation approaches to civil works contracts with small, localized impacts. It is accepted that this format provides the key elements of an Environmental and Social Management Plan (ESMP) or Environmental and Social Management Framework (ESMF) to meet World Bank Environmental Assessment requirements under ESS1. The intention of this checklist is that it would be applicable as guidelines for the small works contractors and constitute an integral part of bidding documents for contractors carrying out small civil works under Bank-financed projects.

The checklist has three sections:

Part 1 includes a descriptive part that characterizes the project and specifies in terms the institutional and legislative aspects, the technical project content, the potential need for capacity building program and description of the public consultation process. This section could be up to two pages long. Attachments for additional information can be supplemented when needed.

Part 2 includes an environmental and social screening checklist, where activities and potential environmental issues can be checked in a simple Yes/No format. If any given activity/issue is triggered by checking "yes", a reference is made to the appropriate section in the following table, which contains clearly formulated management and mitigation measures.

Part 3 represents the monitoring plan for activities during project construction and implementation. It retains the same format required for ESMPs proposed under normal Bank requirements for Category B subprojects. It is the intent of this checklist that Part 2 and Part 3 be included into the bidding documents for contractors, priced during the bidding process and diligent implementation supervised during works execution.

CONTENTS

PART A: GENERAL PROJECT AND SITE INFORMATION

INSTITUTIONAL & ADMINISTRATIVE			
Country			
Project title			
Subproject title			
Scope of site-specific activity			
Institutional arrangements (WB)	Task Team Leader: (insert)	E&S Specialists: (insert)	
Implementation arrangements (Borrower)	Implementing entity: (insert)	Works supervisor: (tbd)	Works contractor: (tbd)
SITE DESCRIPTION			
Name of institution whose premises are to be rehabilitated			
Address and site location of institution whose premises are to be rehabilitated			
Who owns the land? Who uses the land (formal/informal)?			
Description of physical and natural environment, and of the socio-economic context around the site			
Locations and distance for material sourcing, especially aggregates, water, stones?			
LEGISLATION			
National & local legislation & permits that apply to project activity			
PUBLIC CONSULTATION			
When / where the public consultation process will take /took place			
ATTACHMENTS			
Attachment 1: Site plan / photo Attachment 2: Construction permit (as required) Attachment 3: Agreement for construction waste disposal			

Other permits/agreements – as required

PART B: SAFEGUARDS INFORMATION

ENVIRONMENTAL /SOCIAL SCREENING			
Will the site activity include/involve any of the following?	**Activity/Issue**	**Status**	**Triggered Actions**
	1. Building rehabilitation	[ ] Yes [ ] No	See Section **A** below
	2. New construction	[ ] Yes [ ] No	See Section **A** below
	3. Individual wastewater treatment system	[ ] Yes [ ] No	See Section **B** below
	4. Historic building(s) and districts	[ ] Yes [ ] No	See Section **C** below
	5. Acquisition of land[2]	[ ] Yes [ ] No	See Section **D** below
	6. Hazardous or toxic materials[3]	[ ] Yes [ ] No	See Section **E** below
	7. Traffic and Pedestrian Safety	[ ] Yes [ ] No	See Section **F** below
	8. Social Risk Management	[ ] Yes [ ] No	See Section **G** below

[2] Land acquisitions includes displacement of people, change of livelihood encroachment on private property this is to land that is purchased/transferred and affects people who are living and/or squatters and/or operate a business (kiosks) on land that is being acquired.

[3] Toxic / hazardous material includes but is not limited to asbestos, toxic paints, noxious solvents, removal of lead paint, etc.

PART C: MITIGATION MEASURES

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
0. General Conditions	Notification and Worker Safety	(a) Notify local construction and environment inspectorates and communities on the upcoming activities (b) Notify public on the works through appropriate notification in the media and/or at publicly accessible sites (including the site of the works) (c) Acquire all legally required permits for construction and/or rehabilitation (d) Formally agree with Employer that all work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment. (e) Ensure that workers' PPE complies with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots) (f) Appropriately signpost construction site to inform workers on key rules and regulations.
A. General Rehabilitation and /or Construction Activities	Air Quality	(a) Suppress dust during pneumatic drilling/wall destruction by ongoing water spraying and/or installing dust screen enclosures at site (b) Keep the surrounding environment (sidewalks, roads) free of debris to minimize dust (c) Disallow open burning of construction / waste material at the site (d) Disallow excessive idling of construction vehicles at sites
	Noise	(a) Limit construction noise to daytime unless extreme urgency. Notify local communities on the works schedule if it deviates from standard working hours (b) Ensure that during operation, engine covers of generators, air compressors and other powered mechanical equipment are closed, and equipment placed as far away from residential areas as possible
	Water Quality	(a) Establish appropriate erosion and sediment control measures such as e.g. hay bales and / or silt fences to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers.
	Waste management	(a) Identify waste collection and disposal pathways for all major waste types expected from demolition and construction activities

		(b) Separate mineral construction and demolition wastes from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers. (c) Collect construction waste and dispose properly to the designated locations (d) Whenever feasible, reuse and recycle appropriate and viable materials (except asbestos)
B. Individual wastewater treatment system	Water Quality	(a) Ensure that the approach of handling sanitary wastes and wastewater and the design of the treatment system is approved by relevant authorities (b) Ensure that before discharging into receiving waters, effluents from individual wastewater systems are treated in order to meet the minimal quality criteria set out by national guidelines on effluent quality and wastewater treatment (c) Undertake monitoring of newly established wastewater treatment systems and report to Employer on the monitoring outcome (d) Wash construction vehicles and machinery only in designated areas where runoff will not pollute natural surface water bodies.
C. Cultural Heritage sites /buffer zones	Cultural Heritage	(a) If the cable ducks or shelters will be arranged within buffer zone of cultural heritage site, prior consent of the Ministry of Education, Science, Culture and Sport should be obtained. all construction activities are planned and carried out in line with local and national legislation. (b) Acquaint personnel with the procedures for handling chance finds. Take all physical activity on hold if a change find is suspected or reported by staff and immediately notify Employer in writing. Do not resume work until formal notice from the Employer.
D. Acquisition of land	Land Acquisition Plan/Framework	(a) If expropriation of land was not expected but is required, or if loss of access to income of legal or illegal users of land was not expected but may occur, immediately consult the World Bank's Task Team Leader (b) Make sure not to enter a subproject site and not to start any physical activity in it prior to receiving formal notice on the completion of resettlement and full delivery of compensation to the affected people
E. Toxic Materials	Asbestos management	(a) If asbestos is located on the subproject site, mark it clearly as hazardous material (b) When possible, appropriately contain and seal asbestos to minimize exposure (c) Treat asbestos prior to removal (if removal is necessary) with a wetting agent to minimize asbestos dust (d) Handle and disposed asbestos using skilled & experienced professionals

		(e) If asbestos material is being stored temporarily, securely enclosed it inside closed containments and mark appropriately. Take security measures against unauthorized removal from the site (f) Do not reuse the removed asbestos
	Toxic / hazardous waste management	(a) Temporarily store all hazardous or toxic substances on site in safe containers labeled with details of composition, properties and handling information (b) Place containers of hazardous substances in leak-proof containers to prevent spillage and leaching (c) Transport waste to official landfills and dispose excess excavated material at sites agreed with the local authorities. (d) No not use paints with toxic ingredients or solvents, or lead-based paints
F. Traffic and Pedestrian Safety	Direct or indirect hazards to public traffic and pedestrians by construction activities	(a) Signpost, place warning signs, arrange barriers and traffic diversions so that the work site is clearly visible, and the public is warned of all potential hazards (b) Establish traffic management system and conduct staff training, especially for site access and near-site heavy traffic. Provide safe passages and crossings for pedestrians where construction traffic interferes. (c) Adjust working hours to local traffic patterns, e.g., avoid major transport activities during rush hours or times of livestock movement (d) Actively manage traffic if required for safe and convenient passage for the public.
G. Social Risk Management	Public relationship management	(a) Assign local liaison person within Contractor's team to be in charge of communication with and receiving requests/ complaints from local population (b) Consult local communities to identify and proactively manage potential conflicts between an external workforce and local people (c) Raise local community awareness about sexually transmitted disease risks associated with the presence of an external workforce and include local communities in awareness activities. (d) Inform the population about construction and work schedules, interruption of services, traffic detour routes and provisional bus routes, blasting and demolition, as appropriate. (e) Limit construction activities at night. When necessary ensure that night work is carefully scheduled, and the community is properly informed, so they can take necessary measures.

		(f) At least five days in advance of any service interruption (including water, electricity, telephone, bus routes), advice community through postings at the work site, at bus stops, and in affected homes/businesses. (g) Address concerns raised through Grievance Redress Mechanism established by the Employer within the designated timeline within the scope of Contractor's liability (h) To the extent possible, do not locate work camps in close proximity to local communities (i) Undertake siting and operation of worker camps in consultation with neighboring communities
	Labor management	(a) Recruit unskilled or semi-skilled workers from local communities to the extent possible. Where and when feasible, worker skills training, should be provided to enhance participation of local people. (b) Provide adequate lavatory facilities (toilets and washing areas) in the work site with adequate supplies of hot and cold running water, soap, and hand drying devices. A temporary septic tank system should be established for any residential labor camp and without causing pollution of nearby watercourses (c) Raise awareness of workers on overall relationship management with local population, establish the code of conduct in line with international practice and strictly enforce them, including the dismissal of workers and financial penalties of adequate scale (d) Immediately inform technical supervisor of works and the employer about any accidents/incidents happening at work sites and/or resulting from any contractual activity of works provider which has resulted in tangible damage to human and/or environmental health, including but not limited to trauma or death at work site, traffic accident, emergency emission/pollution of environment with hazardous substances, etc.

PART D: MONITORING PLAN

Activity	What (Is the parameter to be monitored?)	Where (Is the parameter to be monitored?)	How (Is the parameter to be monitored?)	When (Define the frequency / or continuous?)	Why (Is the parameter being monitored?)	Who (Is responsible for monitoring?)
CONSTRUCTION PHASE						
1.						
2.						
n.						
OPERATION PHASE						
1.						
2.						
n.						

Attachment 5. Monthly Field Environmental and Social Monitoring Checklist

Site location					
Name of contractor					
Name of supervisor					
Date of site visit					
Status of civil works					
Documents and activities to be examined	Status				Comments
	Yes	Partially	No	N/A	
Contractor holds license for extraction of natural resources					
Contractor holds permit for operating concrete/asphalt plant					
Contractor holds agreement for final disposal of waste					
Contractor holds agreement with service provider for removal of household waste from site					
Work site is fenced, and warning signs installed					
Traffic is regulated with sufficient warning and signalling signage sufficient for timely slowdown, safe bypassing of temporary barriers and night-time visibility					
Works do not impede pedestrian access and motor traffic, or temporary alternative access is provided					
Working hours are observed					
Construction machinery and equipment is in standard technical condition (no excessive exhaust and noise, no leakage of fuels and lubricants)					

Construction materials and waste are transported under the covered hood					
Construction site is watered in case of excessively dusty works					
Contractor's camp or work base is fenced; sites for temporary storage of waste and for vehicle/equipment servicing are designated					
Contractor's camp is supplied with water and sanitation is provided					
Contractor's camp or work base is equipped with first medical aid and fire-fighting kits					
Workers wear uniforms and protective gear adequate for technological processes (gloves, helmets, respirators, eyeglasses, etc.)					
Servicing and fuelling of vehicles and machinery is undertaken on an impermeable surface in a confined space which can contain operational and emergency spills					
Vehicles and machinery are washed away from natural water bodies in the way preventing direct discharge of runoff into the water bodies					
Construction waste is being disposed exclusively in the designated locations					
Extraction of natural construction material takes place strictly under conditions specified in the license					
Excess material and topsoil generated from soil excavation are stored separately and used for backfilling / site reinstatement as required					

Works taken on hold if chance find encountered and communication made to the State agencies responsible for cultural heritage preservation					
Upon completion of physical activity on site, the site and contractor's camp/base cleared of any remaining left-over from works and harmonized with surrounding landscape					

Attachment 6. Environmental and Social Management Framework for Contingent Emergency Response Component

1. Types of Emergencies that May Unfold in Georgia

Georgia's geographical location, relief, climate-forming conditions, unstable hydrological network, and complex geological setup pose a significant natural threat to its environment and the population. Landslides, debris flow, falling rocks, and mudflows are considered major geological hazards in the country. At the same time, floods, flashfloods, hail, avalanches, and droughts are qualified as the most frequent natural hydro-meteorological hazards. Landslides and floods are frequently associated with significant economic loss, and in some cases, they even cause human death. They damage buildings, agricultural lands, roads, and other infrastructure. As for debris/mudflows, due to the extremely sensitive geological conditions of the country, they take place in almost all mountainous river basins. Due to its complex landscape, rock falls are also frequent in Georgia; these active gravitational processes are observed almost everywhere.

These natural processes are common around the year, but floods/flashfloods and landslides are particularly intensive during the spring and summer seasons; the population and infrastructure in the mountainous regions are mainly within the risk zone.

Earthquakes are also very common in Georgia; seismic activity varies in different regions; however, on a broader scale, the southern slopes of the Caucasus belong to the 9-magnitude zone, while the Kolkheti lowland to 7 and the rest of the country to 8 magnitude zones.

Georgia's geographical location, complex landscape, and diverse climatic zone set the conditions for a wide variety of negative consequences of climate change as well. Climate change is the main trigger or co-factor in several adverse environmental effects e.g., sea-level rise, damaging houses, and infrastructure along the coastal zones, the growing frequency, and intensity of floods, flashfloods, landslides, and mudflows damaging the economy of the country. Besides, due to decreasing rainfall, increasing temperature, and enhanced evaporation, forest fires have been frequenting in Georgia recently.

Outbreaks of infectious diseases and especially COVID-19 caused significant problems to the country, including the loss of life and adverse effect on the country's fragile economy.

Armed conflicts due to geopolitical tensions and regional instability have occurred in Georgia in the recent past and may not be excluded in the observable future.

2. Emergency Response Activities Eligible for Financing from CERC

The specific activities and their description(s), which will be eligible for financing under the CERC, will be determined in agreement with the World Bank and the Government of Georgia, in the event of an emergency. These can include indicative activities such as: a) detailed

damages and needs assessment to understand costs of the emergency, b) civil works that need to be taken urgently during and after emergency conditions. This includes but is not limited to the repair of damaged infrastructure e.g., water supply and sanitation systems (sewerage and wastewater components), dams, reservoirs, canals, roads, bridges, and transportation systems, energy and power supply, telecommunication, and other infrastructure affected by the hazard event. This also may include re-establishment of the urban and rural solid waste system, water supply and sanitation (including urban drainage), repair, restoration, or rehabilitation of damaged public buildings, including schools, clinics/hospitals, and other administrative facilities, removal and disposal of debris associated with any above-mentioned eligible activities, c) direct financial or other types of support to impacted beneficiaries, d) direct support to impacted government or other public agencies or bodies to respond to the crisis, and e) other activities that are specific to the emergency situation.

3. Types of Activities not Eligible for Financing from CERC

CERC may not finance emergency response activities which:

- involve the significant conversion, clearance or degradation of critical natural habitats, forests, environmentally sensitive areas, significant biodiversity and/or protected conservation zones;
- will cause, or have the potential to result in, permanent and/or significant damage to nonreplicable cultural property, irreplaceable cultural relics, historical buildings and/or archaeological sites;
- will negatively affect rare or endangered species;
- do not meet minimum design standards with poor design or construction quality, particularly if located in vulnerable areas;
- require or involve:
    - purchase, application, or storage of pesticides or hazardous materials, other than hazardous wastes and asbestos-containing debris generated due to the emergency event,
    - building dams, retaining walls or other similar structures that will alter riverbanks or seacoast and/or disrupt breeding sites of aquatic species,
    - mining or land reclamation,
    - activities on the land that has disputed ownership, tenure, or user rights.

4. Environmental and Social Risks Associated with Likely Emergency Response Activities

Potential impacts of the proposed activities under CERC are provided in the table below.

Activity	Potential ES impact issues (risks)
Repair of damaged infrastructure including, but not limited to: water supply and sanitation systems (sewerage and wastewater components), dams, reservoirs, canals, roads, bridges, and transportation systems, energy and power supply, telecommunication, and other infrastructure affected by the hazard event,	• Damage to the environment from disorganized disposal of debris, cut-to-spoil material, construction waste; • Increase dust, noise, vibration water pollution, solid/hazardous/toxic waste, wastewater, oil/fuels, public health, and safety; • Possible exposure to asbestos-containing materials, inefficient sourcing and use of construction materials and land acquisition; • Degradation of sensitive ecosystems and impacts on surface and groundwater; • Damage to the health and safety of communities from improper handling of emergency toxic emissions and spillages; • Failure to properly demarcate and close access to danger zones (toxic pollution, radiation, fire, unstable buildings, and infrastructure, etc.), • Failure of provision of drinking water; • The collapse of make-shift tents and shelters provided in a zone of disaster; • Disorganized movement of emergency response vehicles and heavy-duty machinery; • Failure to prevent the spread of disease while undertaking activities in the infection hotspots; • Damage to health and safety of emergency response workers due to lack of adequate personal protective equipment and failure to use it as instructed; • Worksite hazards (earthquake aftershocks, fire, flooding, unstable buildings/infrastructure, release of gas, electric shocks from damaged wiring, etc.). • Conflict with local communities due to unfair prioritization of affected settlements/households for targeting with emergency response activities; • Exclusion of disadvantaged communities from delivery of response actions; • Temporary use of community access roads and private land for the needs of response activities; • Accidental damage to private property during response works.
Re-establishment of the urban and rural solid waste system, water supply, and	Same as above

sanitation (including urban drainage)	
Repair of damaged public buildings, including schools, hospitals, and administrative buildings	Same as above

5. Environmental and Social Screening of Emergency Response Activities and Risk Mitigation

Environmental and social due diligence applied to activities proposed for CERC financing includes undertaking the following steps:

- Environmental and social specialists of MEPA undertake environmental, social, cultural heritage, health and safety screening of the proposed activity using screening templates included in the present ESMF as Attachments 1 and 2.
- High-risk activities and/or activities appearing on the CERC exclusion list provided in section 3 above are rejected from the GRAIL Project support.
- MEPA prepares an Environmental and Social Management Plan (ESMP) using the template of a checklist ESMP provided in the attachment 3 of this ESMF. Mitigation measures are split into those applicable during emergency response works and those to be undertaken once the emergency no longer exists. The former includes measures for managing the following types of risks: occupational health and safety of workers; health and safety of nearby communities; gender-based violence; handling, storing, and transporting of toxic substances; on-site storage of debris and construction waste; temporary land take, restriction of access, and accidental damage to private property. Mitigation measures such as safe final disposal of various types of waste; site reinstatement, revegetation, and landscaping; restoration of accidental damage made to private property may be deferred to post-emergency phase.
- MEPA prepares and implements abbreviated Resettlement Action Plan (a-RAP) in case undertaking of an emergency response action requires private land acquisition or physical relocation. Consultation with local authorities and affected people is required in the process of the a-RAP preparation. Affected people must be compensated prior to the commencement of works.
- World Bank approves ESMPs and a-RAPs for all CERC operations, however, depending on the urgency of action, post-review of these documents is allowed. Approved environmental and social instruments are disclosed through MEPA's webpage and through the external website of the World Bank.
- MEPA mobilizes field-based technical supervisor of works for the oversight of emergency response activities, receives weekly briefs from supervisor, and uses supervision information for adaptive management of CERC-financed activities. Technical supervisor is obligated to immediately notify MEPA on occupational

health and safety accidents and any damage to the health of communities inflicted by emergency response actions.

- MEPA receives full monthly supervision reports from a technical supervisor, including results of environmental and social monitoring. Reports must highlight any temporary solutions to environmental and social threats applied by construction contractors in agreement with technical supervisor that will require further mitigation post emergency.
- MEPA follows up on the application of post-emergency mitigation measures through environmental and social monitoring until full completion of the prescribed actions.

Attachment 7.
Minutes of Consultation Meetings

Georgia Resilient Agriculture, Irrigation, and Land Project

Public Consultation Meetings with Project Stakeholders
Minutes of Meeting N1

Place of Meeting: Khobi Municipality (Tsotne Dadiani str. №189, city Khobi)

Date: November 8, 2023

Number of Attendees: 16

Meeting was conducted by the Environmental, Social and Health and Safety Group of Project Consultants from the Ministry of Environmental Protection and Agriculture of Georgia.

Aim of the consultation meeting was to present Environmental and Social documents of Georgian Resilient Agriculture, Irrigation, and Land Project to local Stakeholders and receive feedbacks from them. List of documents discussed during the meeting were: (1) Environmental and Social Commitment Plan; (2) Environmental and Social Management Framework; (3) Stakeholder Engagement Plan; (4) Labor Management Procedures; and (5) Resettlement Policy Framework.

Meeting was organized by the representatives of Project Implementing Unit:

Meeting was attended by:

Head of Khobi Municipality City Hall;
Assistant of the Head of Khobi Municipality City Hall;
And land owners-irrigation services users from Khobi Municipality.

Issues Discussed:

During the meeting Project Stakeholders received general information regarding Project Environmental and Social Management Framework as well as World Bank and Georgian Legislation Standards and Norms relevant to Project planning and implementation stage. Addition to this were discussed: External and Internal Grievance Mechanism, WB Gender Based Violence Operating Procedure; procedures described in Resettlement Policy Framework, Occupational Health and Safety management, as well as Grant program and its opportunities within the Project. During the meeting Project Engineer also discussed some technical characteristics acknowledgeable at that moment.

Issues Raised:

1. When are you planning to start Project Implementation?

The Project design company might be selected in January. Design should be ready in 18-20 month after contract is signed. Approximately a year or more will be needed to go through all logistical and technical procedures before the construction activities actually start.

2. Will all Project designs be ready at the same time?

Rehabilitation activities necessary for Project proper implementation, will be planned during design stage.

3. Is installation of pumps in canals planned by the Project as well?

Project considers rehabilitation of whole system, building of pumping stations as well. Existing systems will be completely rehabilitated and cleaned. Infrastructure will be also improved where needed. If it is necessity and possibility canal network can also be increased.

4. Dose Project consider rehabilitation of drainage canals or only earth canals will be left?

It's difficult to answer this question at this stage. A proper assessment should be done. Mainly rehabilitation of drainage canals is not considered, nevertheless all the existing international standards will be respected and final decision will be made accordingly. Before final design approval, Project team will present drawings to Stakeholders.

5. Will Shavgele Drainage canal fully be rehabilitated?

Yes, it's planned to have full rehabilitation of Shavgele within the Project, that includes as rehabilitation of main collector, also internal canal networking. PIU team showed particular site location to the meeting attendees.

6. Does Project consider only rehabilitation works or will there be any social programs as well?

Some benefits in grants receiving are considered for women farmers. After the Grant guidebook is approved, more detailed information will be published on information leaflets and presented to local communities during the future stakeholder meetings. Nevertheless, there will be one strict condition – grants will be given to women who are owners or co-owners of those land properties that are irrigated and part of the Project.

Feedback Received:

- Mayor of Khobi was satisfied by the information received from the group of Project Implementing Unit.

- Attendee informed PIU team that the land he rents is located near Project effected area where he plans to cultivate oranges and tangerines. Therefore, he expects that Project will have a very positive impact on his future agricultural activity.

Comments:

- Health and Safety Specialist presented Project traffic management plan, that has to be followed during the Project implementation stage. Land owners and municipality representatives received information regarding health and safety prevention measures for local population.

- Attendees had a request, to clean those wild grasses growing along the canals, that are obstacle for normal functioning of drainage system. They claimed that they do not give access to land plots and make cultivation process difficult. They also had request to clean existing territory along with Project implementation activities. Even just one time cleaning would assist local farmers a lot.

Minutes of Meeting N2

Place of Meeting: Gori Municipality (City Groi, Grigol Peradzis str. N5)

Date: November 10, 2023

Number of Attendees:13

Meeting was conducted by the Environmental, Social and Health and Safety Group of Project Consultants from the Ministry of Environmental Protection and Agriculture of Georgia.

Aim of the consultation meeting was to present Environmental and Social documents of Georgian Resilient Agriculture, Irrigation, and Land Project to local Stakeholders and receive feedbacks from them. List of documents discussed during the meeting were: (1) Environmental and Social Commitment Plan; (2) Environmental and Social Management Framework; (3) Stakeholder Engagement Plan; (4) Labor Management Procedures; and (5) Resettlement Policy Framework.

Meeting was organized by the representatives of Project Implementing Unit:

Meeting was attended by:

Deputy Head of Gori Municipality Service Center;
Head of Tiriponi Service Center;
Deputy Head of Shida Kartli and Samtskhe- Javakheti Region;
Representative of Gori Municipality City Hall;
Representative of Gori Municipality City Hall;
Representative of Gori Municipality City Hall;
And land owners - irrigation services users from Gori Municipality.

Issues Discussed:

During the meeting Project Stakeholders received general information regarding Project Environmental and Social Management Framework as well as World Bank and Georgian Legislation Standards and Norms relevant to Project planning and implementation stage. Addition to this were discussed: External and Internal Grievance Mechanism, WB Gender Based Violence Operating Procedure; procedures described in Resettlement Policy Framework, Occupational Health and Safety management, as well as Grant program and its opportunities within the Project. During the meeting Project Engineer also discussed some technical characteristics acknowledgeable at that moment.

Issues Raised:

1. Will irrigation tariff increase after the rehabilitation is done?

Irrigation water tariff is fixed by Georgian National Energy and Water Supply Regulatory Commission (GNERC). Decision on the existing is neither up to the Ministry of Environmental Protection and Agriculture of Georgia nor to Georgian Melioration Company. Therefore, it is difficult for PIU team to give exact information on the following. It should fix by GNERC according to the water range that will be used by farmers in future.

2. Can you name particular villages that will be affected by Project?

First of all, it worth to be mentioned, that Project considers rehabilitation of only existing canals. Total Project area is 5210 hectares. According to irrigation schemes that are selected at this stage, following canals are plan to be rehabilitated: Tashiskari, Tiriponi, Zeda - Arkhi, Zemo - Alazani, Narekvavi and Shavgele. As for Tiriponi, all the villages that are using this canal will benefit from the Project.

3. Will water debit in main canal stay same or will it change after rehabilitation?

Main canal will be rehabilitated, but it won't change debit of the water supply.

4. As you might be aware, 3 parts of Tiroponi canals are located on occupied territory of Georgia. How are you planning to proceed a rehabilitation works on those locations? If rehabilitation will be difficult to perform, would it be possible at least to clean these parts of canal?

Negotiations regarding the issue is led by the Ministry of Regional Development and Infrastructure of Georgia. Neither PIU, nor Project design team is planning to have rehabilitation activities on occupied territory of Georgia. Nevertheless, the issue will definitely be considered by design company at technical assessment and project design stage. Project will have active communication on the issue with local community and Municipality representatives.

Feedback Received:

- Water allocator in main canal is not properly done, that makes obstacles for the villagers to have enough debit of irrigation water after the month of June. We would appreciate if following will be considered during Project design phase and such allocator will be installed, that will guarantee equal water debit access to all villages.

Comments:

Project Social and Resettlement Specialist, presented planned rehabilitation activities, irrigation programs for farmers and local communities and its awareness raising activities within the Project.

Project Engineer, presented technical part of Project rehabilitation and renovation activities.

Minutes of Meeting N3

Place of Meeting: Akhmeta Municipality (Akhmeta, Cholokashvili str. N 49)

Date: November 15, 2023

Number of Attendees: 21

Meeting was conducted by the Environmental, Social and Health and Safety Group of Project Consultants from the Ministry of Environmental Protection and Agriculture of Georgia.

Aim of the consultation meeting was to present Environmental and Social documents of Georgian Resilient Agriculture, Irrigation, and Land Project to local Stakeholders and receive feedbacks from them. List of documents discussed during the meeting were: (1) Environmental and Social Commitment Plan; (2) Environmental and Social Management Framework; (3) Stakeholder Engagement Plan; (4) Labor Management Procedures; and (5) Resettlement Policy Framework.

Meeting was organized by the representatives of Project Implementing Unit:

Meeting was attended by:

Representative of Akhmeta City Hall;
Representative of Akhmeta City Hall;
Representative of Akhmeta City Hall;
And land owners - irrigation services users from Akhmeta Municipality.

Issues Discussed:

During the meeting Project Stakeholders received general information regarding Project Environmental and Social Management Framework as well as World Bank and Georgian Legislation Standards and Norms relevant to Project planning and implementation stage. Addition to this were discussed: External and Internal Grievance Mechanism, WB Gender Based Violence Operating Procedure; procedures described in Resettlement Policy Framework, Occupational Health and Safety management, as well as Grant program and its opportunities within the Project. During the meeting Project Engineer also discussed some technical characteristics acknowledgeable at that moment.

Questions Raised:

1. Which existing water networks are going to be rehabilitated? Do you have a list of villages?

Project area in total is 6110 hectares. According to the currently selected irrigation scheme list of potential canals are following: Tashiskari, Tiriponi, Zeda - Arkhi, Zemo - Alazani, Narekvavi and Shavgele. Particularly in case of Zemo Alazani, 12 distribution canals (D-6, D-7, D14, D-29, D-34,

D-39, D-42, D-58, D-61, D-75, D-90, D-93) under Project will be rehabilitated.

2. What you mean under modernization; Installation of the new pipes?

Under modernization we mean rehabilitation of existing canals (pipes) according to the international practices and standards, in the way that farmers had necessary water supply for agricultural crops irrigation purposes.

3. How Grant Program beneficiaries under the Project will be selected?

As there is no final Project design yet, it is difficult to identify exact agricultural land area criteria for each beneficiary. However, Project considers number of Consultation Meetings with local communities and farmers, were detailed information regarding Grant Program and its beneficiaries will be provided.

4. Does Project consider rehabilitated of any additional water distribution canals except the ones that already been listed?

The list presented to you is provided by Georgian Melioration Company. Currently this is the first phase of rehabilitation, we have no additional information at this stage.

5. What you mean under the WB financed Project? Is Government receiving any credit?

Government of Georgia will also have financial contribution in Project implementation. Half of finances for Project implementation will be used from Government's budget and half of it from the WB loan.

6. Can you provide us information on Project implementation area in KM's?

The following information is not precise yet. What currently can be said is that, total amount of internal canal rehabilitation is 6110 hectares. Also head structures and main canals will be rehabilitated accordingly.

7. Who will determine the size of distribution canal?

Networking and canal distribution will be done by Georgian Melioration Company. Several types of distributions were named, selection was done according to the criteria determined by GMC.

8. When each Sub-Project will start and finish?

The Project design company might be selected in January. Design should be ready in 18-20 month after contract is signed. Approximately a year or more will be needed to go through all logistical and technical procedures before the construction activities actually start.

9. What environmental impact can Project have on river Alazani? Will there be an enough water debit especially in summer season?

Give you precise information on this is difficult at this stage. More information can be provided during Project design phase.

10. Does Alazani canal rehabilitation involve 4 Telavi and 4 Akhmeta villages? What will be the budget amount of this Sub-Projects?

It will be difficult to name exact villages at this stage, however we can say that 12 distribution canals are planning to be rehabilitated. Currently its impossible to name exact budget of Sub-Projects, Project total budget is 80 million USD.

11. Do you have experience of building boreholes? For example, to provide drinking water for animals; if yes is the following considered to accomplish within the Project?

No, the following is not considered under the Project.

Feedback Received:

Project will lose its sense if Ilto water reservoir will not be rehabilitated.

Minutes of Meeting N4

Place of Meeting: Telavi Municipality (Telavi, King Erekle the II ave. N 16)

Date: November 15, 2023

Number of Attendees: 3

Meeting was conducted by the Environmental, Social and Health and Safety Group of Project Consultants from the Ministry of Environmental Protection and Agriculture of Georgia.

Aim of the consultation meeting was to present Environmental and Social documents of Georgian Resilient Agriculture, Irrigation, and Land Project to local Stakeholders and receive feedbacks from them. List of documents discussed during the meeting were: (1) Environmental and Social Commitment Plan; (2) Environmental and Social Management Framework; (3) Stakeholder Engagement Plan; (4) Labor Management Procedures; and (5) Resettlement Policy Framework.

Meeting was organized by the representatives of Project Implementing Unit:

Meeting was attended by:

Representative of Telavi City Hall;
Representative of Telavi City Hall;
Representative of Telavi City Hall;

Issues Discussed:

During the meeting Project Stakeholders received general information regarding Project Environmental and Social Management Framework as well as World Bank and Georgian Legislation Standards and Norms relevant to Project planning and implementation stage. Addition to this were discussed: External and Internal Grievance Mechanism, WB Gender Based Violence Operating Procedure; procedures described in Resettlement Policy Framework, Occupational Health and Safety management, as well as Grant program and its opportunities within the Project. During the meeting Project Engineer also discussed

some technical characteristics acknowledgeable at that moment.

Questions Raised:

1. Which map will be guide for Project Team during implementation stage?

A new topographic map will be prepared and geological works will be performed. Assessment will start from very beginning, as if there was no irrigation canal before. New canals will be constructed.

Feedback Received:

Georgian Melioration Company made rehabilitation of Telavi irrigation canal, last year. Totally 150 hectares were rehabilitated, nevertheless problem appeared on one distributor. The reason for this was following: part of the pipe was located on private land property (approx. 25m); therefore, land owner did not give access Melioration Company to perform construction activities there.

The problem could also be that 600 mm. canal under the Melioration ownership was crossing private lands. Agricultural activities could cause a pipe damage that would be a problem for the local community.

Comments:

- Please consider during rehabilitation works that the sewage system is connected to the main canal. New sewage system should be installed as well. We had such cases before and decision was made to install new systems for local community.

Minutes of Meeting N5

Place of Meeting: Khashuri Municipality (city Khashuri, Tabidze str. N2)

Date: November 17, 2023

Number of Attendees: 26

Meeting was conducted by the Environmental, Social and Health and Safety Group of Project Consultants from the Ministry of Environmental Protection and Agriculture of Georgia.

Aim of the consultation meeting was to present Environmental and Social documents of Georgian Resilient Agriculture, Irrigation, and Land Project to local Stakeholders and receive feedbacks from them. List of documents discussed during the meeting were: (1) Environmental and Social Commitment Plan; (2) Environmental and Social Management Framework; (3) Stakeholder Engagement Plan; (4) Labor Management Procedures; and (5) Resettlement Policy Framework.

Meeting was organized by the representatives of Project Implementing Unit:

Meeting was attended by:

Member of Kashuri Sakrebulo
Represnetaitve of Khashuri City Hall;
Represnetaitve of Khashuri City Hall;
Represnetaitve of Khashuri City Hall;
And land owners - irrigation services users from Khashuri Municipality.

Issues Discussed:

During the meeting Project Stakeholders received general information regarding Project Environmental and Social Management Framework as well as World Bank and Georgian Legislation Standards and Norms relevant to Project planning and implementation stage. Addition to this were discussed: External and Internal Grievance Mechanism, WB Gender Based Violence Operating Procedure; procedures described in Resettlement Policy Framework, Occupational Health and Safety management, as well as Grant program and its opportunities within the Project. During the meeting Project Engineer also discussed some technical characteristics acknowledgeable at that moment.

Questions Raised:

1. Does Grant amount depend on agricultural land size?

Currently Grant Guidebook is under preparation. This document will give more precise information who will have possibility to take part in Grant Program, particularly: what should be minimum amount of land hectares that beneficiary should own, and which agricultural crops will be chosen to finance. Before he Program announcement, consultation meetings will be conducted. The Program will also be published on the website of the Ministry and the Rural Development Agency.

2. When Project will start?

Project design company might be selected in January. Design should be ready in 18-20 month after contract is signed. Approximately a year or more will be needed to go through all logistical and technical procedures before the construction activities actually start.

3. Little New-Village community have 900m distance from irrigation canal. When particularly this part of the canal will be rehabilitated?

If existing situation is urgent, it's better to address the Georgian Melioration Company on this. Project will start in April and will continue approximately for 18 months. Therefore, this process can be prolonged.

4. Situation in Kareli Region is more or less fine, Khashuri Municipality is in a very bad condition. Addition to these 2 bumping stations were robbed, where only building is left, therefore it is impossible to perform any rehabilitations activities there. (Ktisi bumping station – 800 hectare and Vayi station – 3400 hectare). Does Project consider fixing such issues as well? Or only rehabilitation of famers irrigation canals is planned within the Project?

Currently we do not have exact information on bumping station, but we will find it out. What is irrigated through gravitation (meaning self-powering) that parts will definitely be considered within the Project.

5. Will tariff for water suppliers stay the same after rehabilitation?

It will be difficult for PIU team to answer this question.

6. Will all distributors be checked during internal canal design (patches are damaged) or community should address regarding this issue individually?

No individual request will be needed. Project will consider rehabilitation of whole network. If its necessary old ones will be rehabilitated if not the new ones will be constructed. Previous practices showed that mainly old patches are relocated with new ones.

Feedback Received:

- There are concrete patches in Village 9 Oak, which were damaged long time ago. Irrigation canal comes on the edge of the village. The issue has to be solved.

Project implementation area include primarily designed area. Meaning that primarily irrigated areas will be rehabilitated from the beginning. Everything will be renovated and given the primary shape, in accordance to the international standards.

- Rehabilitation of the main pipeline is essential; Village will take care of the rest.

- It will be good to perform a site assessment.

Comments:

- Involvement of local community and farmers in Project design and implementation stage is essential. In case of Liakhvi pipeline communication with locals was very poor, that left lot of unsolved issues.

- We ask to have permanent communication with local community from Project Implementation and Design Team. We believe that information shared by us can be very profitable and productive for Project further effective implementation.

- A big amount of water leakage has been observed on main pipeline of the village Vaya, that caused landslide. The area is fully flooded, village access road is blocked. We have request to consider the following and fix village main pipeline.

- According to the information provided from Georgian Melioration Company internal pipes are not on local community balance. Previously there were farmer associations established by the WB financial support. Later, these associations stopped functioning and were under the Municipality management. It's essential to create such associations again in order to control and manage such issues under the participation of local communities. It will be

better if water -supplier associations are still established.

Yes, we had such practice in previous Project. It's still planned to create such associations within the Project and local farmers will be the part of it.

It's also important to establish a management unit that will take control of these associations.

Minutes of meetings N6

Place of Meeting: Bolnisi Municipality (city Blonisi, Sulkhan-Saba Orbeliani str. N 106)

Date: December 1, 2023

Number of Attendees: 26

Ethnical Minorities: - 3 Azerbaijans from the local community

Meeting was conducted by the Environmental, Social and Health and Safety Group of Project Consultants from the Ministry of Environmental Protection and Agriculture of Georgia.

Aim of the consultation meeting was to present Environmental and Social documents of Georgian Resilient Agriculture, Irrigation, and Land Project to local Stakeholders and receive feedbacks from them. List of documents discussed during the meeting were: (1) Environmental and Social Commitment Plan; (2) Environmental and Social Management Framework; (3) Stakeholder Engagement Plan; (4) Labor Management Procedures; and (5) Resettlement Policy Framework.

Meeting was organized by the representatives of Project Implementing Unit:

Meeting was attended by:

Representative of Bolnisi City Hall;
Representative of Bolnisi City Hall;
And land owners - irrigation services users from Bolnisi Municipality.

Issues Discussed:

During the meeting Project Stakeholders received general information regarding Project Environmental and Social Management Framework as well as World Bank and Georgian Legislation Standards and Norms relevant to Project planning and implementation stage. Addition to this were discussed: External and Internal Grievance Mechanism, WB Gender Based Violence Operating Procedure; procedures described in Resettlement Policy Framework, Occupational Health and Safety management, as well as Grant program and its opportunities within the Project. During the meeting Project Engineer also discussed some technical characteristics acknowledgeable at that moment.

Questions Raised:

1. Is it planned to make rehabilitation of Mashavera irrigation system?

No, Project considers only rehabilitation of Zeda-Arkhi irrigation system.

2. Will Zeda-Arkhi irrigation system be enough for every villager in Bolnisi? Now, existing system is not enough for Shua-Arkhi (village Arkhi) and village houses. Currently Shua-Arkhi system is not functioning. Does Project consider its rehabilitation? Approximately 1500 families are irrigating agricultural lands from this system. Currently this part of the village is not irrigated.

Project considers rehabilitation of canals that irrigate all agricultural lands by Zeda-Arkhi system, that is 1500 hectare in total. If following area goes under Shua-Arkhi system, then is will also be rehabilitated.

3 . When rehabilitation activities will start?

Project design company might be selected in January. Design should be ready in 18-20 month after contract is signed. Approximately a year or more will be needed to go through all logistical and technical procedures before the construction activities actually start.

4. Will the pipeline networking be arranged for every agricultural land?

Yes, that's exactly how its planned to be. Open and closed systems will be arranged. Benefit of the closed system is that water loss will be minimum. The aim of Project is to provide water for everyone equally and with minimum loss.

Feedback Received:

- Rehabilitation of Zeda-Arkhi system is important, but Shua-Arkhi rehabilitation is essential. The last one collects 4 cub meter water in it.

- Is it possible to connect Shua-Arkhi with the Village canal and to make rehabilitation of Shua-Arkhi separately? Plenty of agricultural land were irrigated with village canal, now its not functioning for several years.

Detail observation and assessment has to be done regarding that issue. After design company will start operating, more information will be obvious.

Aim of this meeting is to give you a general information regarding the Project. After design company will start operating, more detailed discussion will be conducted with local community.

Active involvement of local farmers in Project implementation stage is essential. Several Consultation Meetings will be conducted, where information regarding separate collectors will be introduces and relevant feedbacks will be expected.

- The network systems have also to be considered and fixed. It occurred that some farmers could irrigate the lands for days and some could not do it at all, that was the reason of unequal distribution.

Particular training and awareness sessions will be conducted to farmers on that issue. In order to give them information and instruct what amount of water can be used by them for proper irrigation process for particular types of crops. The land laboratory tests will also be done, according to that precise information will be known which cultures are better to plant and which not.

Minutes of Meetings N 7

Place of the meeting: Dusheti Municipality (city, Dusheti, Rustaveli str. N27)

Date: December 6, 2023

Number of Attendees:15

Meeting was conducted by the Environmental, Social and Health and Safety Group of Project Consultants from the Ministry of Environmental Protection and Agriculture of Georgia.

Aim of the consultation meeting was to present Environmental and Social documents of Georgian Resilient Agriculture, Irrigation, and Land Project to local Stakeholders and receive feedbacks from them. List of documents discussed during the meeting were: (1) Environmental and Social Commitment Plan; (2) Environmental and Social Management Framework; (3) Stakeholder Engagement Plan; (4) Labor Management Procedures; and (5) Resettlement Policy Framework.

Meeting was organized by the representatives of Project Implementing Unit:

Meeting was attended by:

Representative of City Hall, Jimvally administrative district;
Representative of City Hall, Magaro-Kari administrative district;
Representative of City Hall, Chopotri administrative district;
Head of Finance Department of Dusheti City Hall;
And land owners - irrigation services users from Dusheti Municipality.

Issues Discussed:

During the meeting Project Stakeholders received general information regarding Project Environmental and Social Management Framework as well as World Bank and Georgian Legislation Standards and Norms relevant to Project planning and implementation stage.

Addition to this were discussed: External and Internal Grievance Mechanism, WB Gender Based Violence Operating Procedure; procedures described in Resettlement Policy Framework, Occupational Health and Safety management, as well as Grant program and its opportunities within the Project. During the meeting Project Engineer also discussed some technical characteristics acknowledgeable at that moment.

Questions Raised:

1. Water reservoir is located in Gremiskhevi administrative district. Does Project consider system networking on this territory?

No, Project does not consider system networking on this territory. Its planned only to purchase a water pump.

2. What impact will Project have on Dusheti Municipality?

Water reservoir will be cleaned, water pump will be installed, more water will be accumulated, that will improve the irrigation process.

3. When Project is planning to start?

Project design company might be selected in January. Design should be ready in 18-20 month after contract is signed. Approximately a year or more will be needed to go through all logistical and technical procedures before the construction activities actually start.

Comments:

1. Rehabilitation process will lose its sense if pump stations is not installed. Previously water was coming from Bazaleti water reservoir and that's how these territories were irrigated. If Project is planning to follow previous scheme, that will have no positive impact on local population.

2. Have you visited Gremmy Valley? River bed is forested and wild. Environmental conditions are very bad. The following has to be taken in to account.

Please infrom design company about the issue. The Company should be in active communication with local community during Project design and implementation phase. Design company will make detailed assessment of particular territory.

3. Main fields are at the left side of the canal, which need to be irrigated. Does Project consider there rehabilitation as well?

Project does not consider rehabilitation of the canal's left side. But local community can write an official letter regarding the issue and address to the Ministry.

4. Rehabilitation process will lose its sense if river basin and valley are not cleaned. They have not been treated last 5 years. The risk of flooding is high because of valley absence on the territory.

As the following reservoir is located in Gremiskhevi, Head of Municipality was interested why it was named as Narekvavi. Previously there was 1200 agricultural lands around this territory, currently the amount of land plots decreased, because of the irrigation problem.

The issue is also important from environmental point of view. There is no fish in the river.

Attendees requested full rehabilitation of the system. Also, they asked who was recipient of the following request.

An official letter should be officially sent to the Ministry of Environmental Protection and Agriculture of Georgia and Georgian Melioration Company.