

**MINISTRY OF ENVIRONMENTAL PROTECTION AND
AGRICULTURE OF GEORGIA**

Georgia Irrigation and Land Market Development Project



**ENVIRONMENTAL AND SOCIAL
MANAGEMENT FRAMEWORK**

**Tbilisi 2014
(Amended November 19th 2019)**

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LIST OF ACRONYMS

AA	Amelioration Association
ASP	Agriculture Support Project
BP	Bank Policy
CQC	Consultant Qualification
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
ESMF	Environmental and Social Management Framework
FBS	Fixed-Budget selection
FMM	Financial Management Manual
GA	Georgian Amelioration LTD
GEF	Global Environment Facility
GILMDP	Georgia Irrigation and Land Market Development Project
GoG	Government of Georgia
GRM	Grievances Redress Mechanism
IBRD	International Bank for Reconstruction and Development
IC	Individual Consultants
ICB	International Competitive Bidding
IDA	International Development Association
IFAD	International Fund for agriculture Development
IFR	Interim und audited Financial Report
IPSAS	International Public Sector Accounting Standards
LA	Loan Agreement between the WB and GoG defining terms and conditions of the Loan
LCS	Least-Cost Selection
M&E	Monitoring and Evaluation
MEPA	Ministry of Environmental Protection and Agriculture of Georgia
MoF	Ministry of Finance of Georgia
MRDI	Ministry of Regional Development and Infrastructure
NAPR	National Agency for Public Registry
NGO	Non-Governmental Organization
O&M	Operation and Maintenance
OP	Operational Policy (of the World Bank)
PAP	Project Affected Person
PDO	Project Development Objectives
POM	Project Operational Manual
PPMD	Project Planning and Monitoring Division
QCBS	Quality and Cost-Based Selection
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
SA/DA	Special Account/Designated Account opened in the Treasury
SOE	Statements of Expenditures
SSS	Single-Source Selection
TA	Technical Assistance
TOR	Terms of Reference
Treasury	The State Treasury
WB, or Bank	The World Bank

1. INTRODUCTION

Government of Georgia recognizes the poor condition of the agriculture sector and includes into the State strategy much greater attention to it with a particular focus on rebuilding public services to support small farmers and the eventual privatization of state-owned enterprises. Ensuring effective irrigation and drainage services and securing land titles are seen as two essential foundations for greater private investment in high value irrigated agriculture.

Currently 278,000 ha of land are under irrigation and 109,000 ha of land are under drainage. In total there are around 130 irrigation schemes in Georgia. Irrigation mainly is needed in the East part of Georgia, where the main crops are vegetables, fruits, maize, and grapes. State Ltd. called the Georgian Amelioration (GA) is in charge of maintenance and exploitation of all irrigation schemes. Due to poor conditions of the irrigation canals, only 24,000 ha of land were irrigated in 2012. The water charge is 75 GEL per ha per year. As of today collection rate is very low, the canals are poorly maintained, and, as a result, GA cannot serve to all customers in need of irrigation. The Government is subsidizing the costs of operation and maintenance of the system. In the year of 2013, some 8 mln. GEL was allocated from the State budget to the GA to make up for non-payment by customers. As for the drainage system, the total area under drainage is around 128,000 ha, comprising 108,000 ha in West Georgia (Kolkheti lowland) and 20,000 ha in East Georgia. At present drainage service coverage is limited to approximately 30,000-35,000 ha. On the remaining areas previously under drainage, the open main canals and other elements of water collection network need cleaning. Spillway pumping stations and closed drainage systems are non-operational. The amelioration medium-term development program (2014-2017) envisages implementation of rehabilitation works of drainage schemes on 80 000 ha.

The Ministry of Environmental Protection and Agriculture of Georgia (MEPA) sought assistance of the World Bank and the International Fund for Agricultural Development (IFAD) in developing the institutional framework and rehabilitating infrastructure for irrigation and drainage service provision and also to develop land market in Georgia. In 2015, the World Bank allocated financial resources in the amount of around 50 mln USD to assist Georgia with the implementation of the Irrigation and Land Market Development (ILMD) Project. In 2019, Government of Georgia requested, and the World Bank agreed to provide additional financing of ILMD Project in the amount of 20 mln USD. The Project focuses on two key areas: (i) irrigation and drainage improvement and (ii) land market development. This Environmental and Social Management Framework applies to all activities of the parent project and additional financing, with the exception of systematic land registration activities under Component 2 of the project, which are guided by World Bank policy OP 4.00 on use of country systems.

The MEPA will be an implementing entity for ILMD Project, with the overall responsibility for its implementation and coordination, while day-to-day managerial functions will be delegated to the Project Planning and Monitoring Division (PPMD) of MEPA.

2. PROJECT DESCRIPTION

Project Objectives and Key results

The Project Development Objective (PDO) is to: (i) improve delivery of irrigation and drainage services in selected areas; and (ii) develop improved policies and procedures as a basis for a national program of land registration.

The PDO level results indicators for the Project are: (i) Absolute volume of irrigation water supplied to Project rehabilitated schemes; (ii) Area provided with improved irrigation and drainage services; and (iii) Recommended policies and procedures for a national program of land registration submitted to government. The complete list of outcome indicators and intermediary indicators is given in Annex 1.

Project Description

The Project consists of three components:

- Component 1 Irrigation and Drainage Improvement
- Component 2 Land Market Development
- Component 3 Project Management

Component 1 - Irrigation and Drainage Improvement (US\$54.65 million)

This component includes four Subcomponents:

- Sub-component 1.1 Irrigation and Drainage Rehabilitation and Modernization
- Sub-component 1.2 Strengthening of Irrigation and Drainage Institutions
- Sub-component 1.3 Strengthening of Land Management Agency
- Sub-component 1.4 Feasibility study of Small Reservoirs

Sub-component 1.1 Irrigation and Drainage Rehabilitation and Modernization (US\$49.13 million)

Rehabilitation and Modernization. This sub-component finances the rehabilitation and modernization of selected irrigation and drainage schemes including design, construction and construction supervision. The Project supports the rehabilitation of head works, dams, primary and secondary (off-farm) canals, tertiary (on-farm canals), and other minor structures in the project areas. The Project restores previously irrigated and drained areas only, and not build new schemes. Irrigation and drainage systems serving approximately 20,000 ha will be rehabilitated under the Project. While a large part of the rehabilitation involves reconstruction of original systems, there will be opportunities to modernize water control and delivery structures, including automation of headworks or introduction of Supervisory Control and Data Acquisition (SCADA) to monitor and control water distribution in some of the larger canal systems.

Selection of Irrigation and Drainage Schemes. Schemes were selected based on criteria to help ensure the financial, economic, social and environmental feasibility of investments and their compliance with the World Bank safeguard polices. Criteria included: (i) sufficient water available to the scheme; (ii) technical viability of rehabilitation; (iii) complementarity between selected schemes in order to minimize off-farm rehabilitation costs per ha; (iv) maximum cost of rehabilitation of US\$3000 per hectare (for off-farm and on-farm systems); (v) willingness to pay for water, financial and economic viability; (vi) complementarity with other sector developments ongoing in the area; and (vii) positive environmental, social and safeguards assessments. Selection was preceded by a public information campaign to ensure widespread beneficiary understanding of Project.

Scope of Rehabilitation Works on First Three Schemes. Three irrigation schemes were selected for the Project support: Kvemo Samgori Scheme (Kakheti), Tbisi-Kumisi Scheme (Kvemo Kartli Region) and Zeda Ru (Shida Kartli). The estimated value of works for their rehabilitation is US\$20.03 million or 48 percent of the total Project budget for this sub-component. The first phase of works included rehabilitation of headworks and primary (main) canals for the three schemes as well as dam safety investments. Subsequent interventions will include rehabilitation of secondary and tertiary systems. Design and works for rehabilitation of on-farm systems (with the exception of some critical on-farm irrigation infrastructure¹) is underway.

Sub-component 1.2 Strengthening of Irrigation and Drainage Institutions (US\$3.52 million)

The Project finances the following seven activities under this subcomponent:

- Preparation of National Irrigation and Drainage Strategy
- Preparation of National Rehabilitation and Modernization Plan
- Institutional Strengthening of GA in Management, Operations and Maintenance
- Upgrading of GA Machinery and Equipment for Maintenance
- Preparation of Operation, Maintenance and Financing Plans for Selected Schemes
- Preparation of Annual GA Operational Plans for 2015/16
- Development of Institutional Arrangements for On-Farm Irrigation Service Delivery

Preparation of National Irrigation and Drainage Strategy². The Project provided technical assistance to develop a Strategy that defines the long-term vision for (i) national regulation and monitoring of irrigation water delivery including environmental monitoring; (ii) institutional arrangements for on-farm and off-farm irrigation and drainage services; (iii) water pricing and cost recovery; and (iv) rehabilitation and modernization. The strategy also defines the government's approach to increasing resilience to climate change through improved irrigation and drainage management.

The Project finances consultants and operating costs for the **preparation of a national rehabilitation and modernization plan** that will prioritize rehabilitation and modernization over the next 5-10 years as a basis for nationwide government and donor funded investments. The plan will be based on: (i) technical assessments following completion of the on-going inventory to identify all canals and structures and their functional condition; (ii) financial and economic assessments of the viability of rehabilitating different types of irrigation and drainage systems different agro-climatic regions; (iii) social assessments of the impact of rehabilitation; and (iv) environmental assessments including an assessment of the impact of rehabilitation on national and river basin water balances and the implications of climate change. Preparation process would include farmer consultations to assess their priorities. Opportunities to introduce modern technologies such as more efficient water conveyance, distribution and application to reduce water losses, modern low-cost technologies for water measurement and new pumping technology will also be identified.

Institutional Strengthening of Georgian Amelioration LTD (GA) in Management, Operations and Maintenance

The Project finances: (i) *maintenance management improvement* - consultants to prepare guidelines on the preparation of maintenance plans for on-farm systems, off-farm systems and dams, and training of GA staff on this topic; (ii) *water delivery management and technology improvement* - consultants for the introduction

¹ Such as entirely non-functional section of canals and siphons, missing control and distribution gates.

² "Irrigation Strategy for Georgia 2017-2025" was adopted on 24.05.2017 by Ministerial Decree #2-81

of improved methods for estimating crop water requirements, scheduling and monitoring water delivery and training of GA staff on this topic; and computer programs for calculating crop water and irrigation requirements (such as CropWat from FAO), information technology (IT) upgrading and measuring devices for improved water delivery; (iii) *irrigation service plans and service agreements* - consultants to prepare guidelines on irrigation service plans and service agreements between GA and their clients for each irrigation scheme selected under the Project and delivery of training to GA staff on this topic - the service agreements would define water delivery and maintenance services to be provided by GA, terms of payment and arrangements for dispute resolution; and (iv) *billing system technology improvements* – IT software and equipment upgrading to improve billing and financial management systems as well as training of GA staff in how to use improved billing systems.

Upgrading of GA Machinery and Equipment for Maintenance

The Project finances the purchase for GA the new maintenance and cleaning equipment (including, excavators, bulldozers, small pickup trucks, technical service vehicles, back loaders, compressors, weed cutters, global positioning system devices, and canal diggers), office facilities and equipment needed to maintain each irrigation scheme selected under the Project. A requirement for procurement of such equipment will be a GA plan and budget for the use and maintenance of this equipment.

Preparation of Operation, Maintenance and Financing Plans for Off-Farm Systems on Selected Schemes

The Project supports preparation of an operation, maintenance and financing plan for each irrigation scheme selected under the Project in order to mitigate the risk of inadequate operation and maintenance following rehabilitation. The plans will cover operation and maintenance of off-farm systems. For off-farm systems, the plan will include: (i) an operation and maintenance schedule; (ii) an estimate of full operation and maintenance costs for the off-farm system, to be included in the GA annual cost projections; and (iii) calculation of the relative contribution to operation and maintenance costs from irrigation service fees from farmers and government subsidies to GA.

Preparation of annual GA Operational Plans for 2015/16

The Project supported preparation of GA operational plans for 2015 and for 2016. The plan defined the GA scope of services, planned expansion of its client base, organizational structure, human resources, physical asset requirements, management systems and financing requirements for the business plan. The plans draw on findings from the other six key activities under this subcomponent.

Development of Institutional Arrangements for On-Farm Irrigation Service Delivery

GA are currently responsible for on-farm irrigation service delivery but providing such services to a large number of small farmers is challenging. The Project will support a phased transition to improved arrangements for on-farm irrigation service delivery involving greater water user participation and will help to establish these arrangements on irrigation schemes selected under the Project.

The Project explores institutional options for on-farm irrigation system ownership and management, drawing on international experience, including water user organization (WUO) development. Options that consider the potential role of existing or new private or public service providers and operators (including GA), will also be examined. The Project explores options both in terms of (i) ownership of on-farm infrastructure; (ii) functions to be undertaken by these organizations (including water delivery and distribution, maintenance and irrigation service fee collection); and (iii) financing of operations and maintenance and will identify any necessary legislative changes that are required to implement institutional options. In defining the institutional options for on-farm water management, the Project will ensure that the interests of all water users including women and vulnerable groups are properly represented, including through the development of WUOs, to help ensure fair access to irrigation. Inclusion of women and vulnerable groups will be ensured through social mobilization practices that ensure high levels of their participation in field level consultation on institutional options and

encouraging their participation in the governance structures of institutions responsible for on-farm water management.

The institutional options for ownership and management of on-farm systems on each scheme should be established before rehabilitation of on-farm systems (with the exception of some critical on-farm irrigation infrastructure) on that scheme begins. This means:

- (i) Ownership of on-farm irrigation infrastructure must be defined and if required transferred;
- (ii) Organizations responsible for the management of on-farm systems must be legally registered;
- (iii) Organizations responsible for the management of on-farm systems must have a clearly defined organizational structure, governance arrangements in place and management staff appointed.
- (iv) An operation, maintenance and financing plan must be prepared for the scheme including: (a) an operation and maintenance schedule; (b) an estimate of full operation and maintenance costs for the on-farm system, to be included in the budget of the organization responsible for the management of on-farm systems; and (c) calculation of the relative contribution to operation and maintenance costs from irrigation service fees from farmers and government subsidies.
- (v) An agreement between the Ministry of Environmental Protection and Agriculture (MEPA), the organization owning the on-farm system, and the organization responsible for on-farm water management, must be in place, setting out their respective obligations regarding rehabilitation, operation, maintenance and financing.
- (vi) An agreement between organizations responsible for the management of on-farm systems and water users must be in place that includes a definition of payment arrangements.
- (vii) Water users must have been consulted on rehabilitation designs, and there must be a consensus amongst water users to proceed with the proposed rehabilitation.

The Project finances: (i) *preparation of the legal and institutional framework for on-farm water management and ownership* - consultants for design of charters, organizational and governance structures of organizations responsible for on-farm water management including WUOs; (ii) *public awareness of organizations responsible for on-farm water management including WUO* - preparation and printing of materials for public awareness, operating costs for public awareness workshops with farmers in project irrigation schemes; (iii) *social mobilization and advice on establishment of organizations responsible for on-farm water management* - consultants to provide advice on the establishment of organizations for on-farm water management including social mobilization of water users and operating costs for social mobilization in the project schemes; (iv) *training and consultancy for organizations responsible for on-farm water management* – a program of training and consultancy on organizational development, legal support, management, operation and maintenance of on-farm systems and financial management to be provided by the Project, where appropriate in cooperation with the GA Water User Support Unit; (v) *GA Water User Support Unit strengthening* – consultants for preparation of guidelines and training material and training of GA staff on organizational development, legal support, management operation and maintenance of on-farm systems and financial management for organizations responsible for on-farm water management including WUO. The Project will establish a team of six to eight field consultants which will work in close cooperation with the GA water user support unit, to be located on project schemes, to implement field level activities with water users and other stakeholders for each of the activities described above.

Sub-component 1.3 Strengthening of Land Management Agency (US\$1 million)

Until 2004, land registration was carried out annually in Georgia, compartmentalizing the land according to designation/categories, property types and characteristics of the quantitative and qualitative status of land resources. The national land balance (document reflecting the quantitative-qualitative status of land resources) was approved by the Government of Georgia (GoG) and recommendations for rational land use were issued. Land Inventory was carried out by the local and central government through strictly defined and distributed

competences/functions based on legislations. However, the whole process was organizationally supported by the state department of land management.

In 2004, as a result of the institutional reform carried out by the GoG, the state department of land management was abolished - a key institution in the coordination process of land inventory and land balance production. Out of all the department's functions, only those related to the rights of land registration and land rights cadaster functions were transferred to the LEPL National Agency of Public Registry (NAPR). No other government agencies were responsible on conducting activities targeted on the accounting of land actual use and based on the results, land balance production. Accordingly, in 2004 agricultural land registration and balance production were ceased in Georgia.

Presently, reliable information related to the land management is unavailable in the country. The largest part of the land is not registered by NAPR and it is unknown what part of land belongs to the state and or the private owner. Accordingly, the government cannot set boundaries of state-owned land plots or already privatized one. Moreover, MEPA does not have the actual data of agricultural and arable land fund, pastures, etc. Providing comprehensive and up-to-date information on the state of land resources in the country is a prerequisite for land market development, rational land use and defining land policy.

Considering the current challenges, in 2019, the Parliament of Georgia adopted a revised land legislation - Law of Georgia on Target Land Designation and Sustainable Management of Agricultural Land, initiating the resumption of the land inventory process ceased in 2004. According to the new law, the National Agency for Sustainable Land Management and Land Use Monitoring (a legal body of public law) will be established under MEPA and will start operation from 1st January 2020. The Agency will be responsible for an inventory of land resources, creation of land information system and setting up an annual land balance.

Due to the many years of gap in this field, the country is facing the lack of experienced or qualified human resources in land management field. Moreover, the Ministry and the newly established Agency should consider the new methodologies and technological approaches for land registration and land balance production. Strengthening of National Sustainable Land Management and Land Use Monitoring Agency. Functional review of new Land Management Agency in terms of land use plan, land valuation, & land mobility services. Activities to be carried out include: provision of comprehensive and up-to-date information on the state of land resources and establishment of land mobility services (matching farmers, investors and opportunities).

Sub-component 1.4 Feasibility assessment of Irrigation Reservoirs Rehabilitation and Construction Program (US\$1 million)

General objective of the sub-component is the preparation of a comprehensive feasibility assessment (FA) of the East Georgia Irrigation Reservoirs Rehabilitation and Construction Program. The Program aims to add storage to the water supply systems and thereby make water supplies more secure and irrigation services more reliable (and less subjected to climatic risks and disruptions). Activities to be carried: To assess, prioritize and design a comprehensive water storage augmentation program.

Component 2 - and Market Development (US\$12.35 million)

The Component finances pilot phase of a land registration program in order to redefine and test the policies and procedures for registration of agricultural land that would allow the majority of existing land ownership rights to be registered. The implementing agency for the component is the Ministry of Justice (MOJ) and day-to-day management of activities is delegated to the NAPR.

This Component involves three key elements: (i) *Policy and Procedural Development*, including the preparation of Guidelines for Land Registration, developing the methodology for land registration,

defining policies, procedures and dispute resolution mechanisms; (ii) *Pilot Registration* in about forty areas (12 pilot areas + 28 irrigation areas) containing a total of about 146,000 parcels which have been preliminarily selected based on a classification of land tenure situations in the country; and (iii) *Land Registration Monitoring System Development* which will involve design and implementation of a system for monitoring land registration, and evaluating its economic impact. Detail Description of Component 2 activities is given in the Project Operation Manual (POM) prepared by the NAPR for Land Market Development activities of the Project.

Component 3 Project Management (US\$3 million)

Sub-component 3.1 Ministry of Environmental Protection and Agriculture's Project Management (US\$1.95 million)

This component finances Project management, including coordination and technical supervision of the implementation, financial management, procurement, monitoring, evaluation and progress reporting, relating to Component 1. *Sub-component 3.2 NAPR Project Management* would finance similar project management activities relating to Component 2.

3. INSTITUTIONAL AND LEGAL FRAMEWORK

3.1. Institutional Framework

In the 2006, the Government abolished the Department for Amelioration Scheme Management, which had been responsible for the management of primary and secondary irrigation and drainage canals. Four State-owned limited liability companies were established instead to operate primary, secondary (off farm) systems.

Amelioration Service Cooperatives were formed in 2001 and were responsible for operation and maintenance of tertiary (on-farm) systems but were poorly managed and the Government transformed them into Amelioration Associations (AAs) through the amendment of the Law on Amelioration. . Some 259 AAs were established covering 237,000 ha, of which 43 were targeted for support under the WB funded Irrigation and Drainage Community Development Project. In 2005, the Government effectively withdrew support for AAs.

The four Ltds were intended to be financially independent. This required raising water user charges to AAs 12 times to GEL 75 per ha at a time when the system was in poor technical condition and the Ltds could not guarantee water supply. As a result, relations between Ltds and AAs have deteriorated to a point where in 2008 collection of charges from farmers averaged 16% of the amounts due. The Ltd. model failed because: (i) Ltds were not able to secure sufficient public or private finance to improve the infrastructure; (ii) customers were highly dissatisfied with the quality of service; (iii) there was not a well-organized client base following collapse of the AAs; and (iv) cost recovery has been extremely low.

Attempts to privatize the Ltds did not attract sufficient interest and in March 2012 these four Ltds were merged into a single Ltd – the GA. This is a 100 % State owned company. By the Decree #122 dated January 29, 2013 of the Cabinet of Ministers GA is responsible for management of the entire irrigation and drainage network in Georgia, including primary, secondary and tertiary canals. All such infrastructure, including that which was previously owned by the AAs, is now legally owned by the

MEPA. The inventory of this infrastructure is well defined for those schemes selected under the project for rehabilitation as an inventory is needed as a basis for design. However, the inventory is incomplete for many other schemes and the government has initiated a nationwide inventory to address this.

The main responsibilities of the GA defined in its charter include:

- a) plan the Company's activities in the business area and determine the development prospects taking into account water users' demands for water and irrigation services;
- b) provide irrigation services (water delivery, excess water removal) to physical and legal bodies through water supply, water management, irrigation, drainage and pasture watering schemes;
- c) carry out operation and protection of irrigation, pasture watering schemes and independent hydraulic structures as specified in the current legislation;
- d) provide irrigation of cultivated lands and windbreaks, improve soil quality within the irrigation service areas and perform other duties within the Company's mandate;
- e) contract legal and physical persons for the execution of works, water supply, excess water removal and provision of other services;
- f) train and improve the qualifications of the staff members, ensure their participation in conferences, workshops and other events;
- g) carry out any other activities provided that they are not contrary to the current law and interests of the Company and its partners.

The below section briefly presents the roles of entities that may have involvement in the Project primarily, but not exclusively, from an environment perspective.

a) The Ministry of Environmental Protection and Agriculture of Georgia

The MEPA, through its amelioration department, carries out the following activities:

- a) elaborate uniform State policy in the sphere of amelioration and state control of its implementation;
- b) carry out observation and inventory of irrigated lands served by amelioration schemes and adjacent areas and develop their database;
- c) organize State control over rational use of land, soil conservation and fertility preservation-improvement.

Also the mandate of the MEPA is to support sustainable development of the country in the field of environment; to organize environmental planning system; to elaborate and implement state policy, target programs, strategy of environmental protection for sustainable development, national environmental action programs and management plans in the field of environmental protection and natural resources; to protect and preserve unique landscapes and ecosystems, rare and endangered species of flora and fauna that are characteristic for the country, biodiversity, atmospheric air, water, land and mineral resources; to implement public administration (regulation, registration, supervision and control) on waste management and chemicals; to follow the Georgian legislation in the field of environmental protection and to implement the international commitments within its competence.

b) The Ministry of Regional Development and Infrastructure of Georgia

Ministry of Regional Development and Infrastructure coordinates regional development policy, extension of drinking water supply infrastructure, construction and improvement of water supply systems; elaborates and implements unified State policy in designing and construction of international and secondary road networks and scientific-technological progress issues.

c) Georgian National Energy and Water Supply Regulatory Commission

The commission regulates irrigation water fees. The rate of 75 GEL per ha irrigated was established by this Commission. This amount is not adjusted according to the crops cultivated or number of times the irrigation water is supplied during a season.

3.2. Legal Framework

Below is an overview of the laws of Georgia most relevant for ILMD Project implementation:

Constitution of Georgia (1995, last amended in 2018) lays down the legal framework that guarantees environmental and social protection, and public access to information with regards to environmental conditions. The legal enforcement of constitutional requirements relating to environmental protection is implemented through the framework Law on Environmental Protection (December 10, 1996, as amended). The framework law is underpinned by a series of other laws, including the laws described below.

Environmental Assessment Code (June 1, 2017), which fully entered into effect from January 1, 2018, introduces new procedures for screening, scoping, Environmental Impact Assessment (EIA), issuance of Environmental Decision and reporting on the adherence to the terms of Decision. The Code lists activities that are subject to environmental decision and require EIA. The new law introduces Strategic Environmental Assessment as well as Transboundary Environmental Impact Assessment for the projects and strategic documents, subject to EIA and to be implemented in Georgia, which may have a significant transboundary environmental impact. The law also lays down the rules and procedures related to the public participation in environmental decision-making. Two significant laws related to the environmental assessment have been repealed after the Code fully entered in effect on January 1, 2018. Those two laws are: Law on Environmental Impact Permit and Law on Ecological Expertise.

Law on Licenses and Permits (June 24, 2005) regulates activities that may result in increased hazard to human life or health. The law defines a list of activities that require licenses and permits, and sets out the rules for issuing, amending and abolishing licenses and permits. The objective and main principles in the regulation of activities or operations via licenses or permits are to ensure security and protection of human health, security and protection of the living and cultural environment for people, and protection of State and public interests.

Law on Water (October 16, 1997) establishes the principal legal requirements relating to Georgia's water resources, including water protection and consumption. In accordance with the Law on Water, water resources located within the country are owned by the State and water can be abstracted only for consumption activities. Any actions directly or indirectly violating the State ownership rights for water resources are prohibited.

Rules for water intake and discharge for existing water resources are regulated by the Decree #17 of Government of Georgia, dated January 3, 2017 as amended by May 22, 2028 by decree #244. The decree regulates water intake and discharge from natural water bodies for irrigation and drainage activities. This decree sets forms of the substances that can be discharged into the open water sources. In addition to that appendix 2 of the decree sets up norms how water should be abstracted from water sources.

The Law on Soil Protection (May 12, 1994) is aimed at ensuring preservation of integrity and improvement of soil fertility. The law defines obligations and responsibilities of land users and the State regarding provision of soil protection conditions and ecologically safe activities. The law sets the maximum permissible concentrations of hazardous substances in soil and restricts the use of fertile soil for non-agricultural purposes, or activities that could affect soil resources or quality.

Law on Protection of Atmospheric Air (June 22, 1999) regulates protection of the atmospheric air from adverse anthropogenic impacts. Adverse anthropogenic impacts on atmospheric air include human induced effects on causing or capable of causing a negative impact on human health and the environment. This law is not concerned with the regulation of the indoor air quality.

Waste Management Code (December 26, 2014) establishes the legal basis relating to waste management issues and is designed to reduce waste generation by promoting re-use and recycling of waste.

Law on Wildlife (1996) mandates the Ministry of Environment and Natural Resources Protection of Georgia (now MEPA) to protect wildlife through the issuance of hunting permits and licenses, the declaration of hunting areas, the control of poaching etc.

Law on Red List and Red Book of Georgia (June 6, 2003) establishes the legal basis for protecting rare and endangered species, including the development of a Red List and Red Data Book of Georgia. This law is related to Georgia's commitment to the Convention on International Trade of the Endangered Species of Wild Fauna and Flora, dated 3 March 1973. The Red List of Georgia was approved by the Presidential Decree on Approving the Red List of Georgia, No. 303, dated 2 May 2006.

Law on Procedures for Expropriation of the land for public necessity (July 23, 1999) The law determines rules of granting the right to expropriation for necessary public purposes and rules of implementing expropriation. It also It contains a list of activities (projects), which may require expropriation for necessary public purposes, including electricity transmission and distribution lines. This law contains very generic provisions expropriation of property under the urgent need and recognizes the need for providing preliminary, full and fair compensations.

Labour Code of Georgia (2010; last amended in 2019) Labour and human resource management in Georgia is primarily regulated through the Labour Code of Georgia (The Code regulates labour relationships between workers and employees working in Georgia in enterprises, institutions, and organizations, regardless of their ownership or organisational form. It supports the realisation 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.

The law of Georgia on Occupational Health and Safety (February 19, 2019) sets up the principals of the occupational health and Safety standards within the companies and enterprises existing in Georgia. The principals of the law also determine equal right for all citizens of Georgia with respect of the

Occupational Health and Safety issues within the country. This law sets general principals towards expected hazards and sets norms how these risks should be mitigated.

Following are the main environmental standards in place for managing and controlling water, soil, waste, etc.:

Decree of the Government of Georgia on Approval of the Technical Regulation on the Methodology to Determine (calculate) the Environmental Damage, 2014.

Decree of the Government of Georgia on Approval of the Technical Regulation on Environment Protection, 2014.

Decree of the Government of Georgia on Approval of the Technical Regulation on Removal, Storage, Use and Reinstatement of the Fertile Layer of the Soil, 2013.

Decree of the Government of Georgia on Approval of the Technical Regulation on Arrangement, Operation, Closure and Subsequent Care of Landfills, 2015.

Decree of the Government of Georgia on Approval of the Technical Regulation for Drinking Water, 2014.

Decree of the Government of Georgia on Approval of the Technical Regulation on Pollution Protection of Georgian Surface Water, 2013.

Decree of the Government of Georgia on Approval of the Technical Regulation on the Norms of Acoustic Noise in the Premises of Residential Buildings and Public/public Institutions, 2017.

Sanitary Rules and Standards on Prevention of Surface Water Pollution, approved by Order No. 297/n, issued by Minister of Labor, Health and Social Affairs, 2001.

Methodological Guides on Assessment of Level of Chemical Pollution of Soil (MG 2.1.7.004-02).

Hygienic Standards on Maximum Permissible Concentrations of Airborne Pollutants for Settlements (HN 2.1.6. 002-01).

Sanitary Norms 2.2.4/2.1.8 003/004-01 Noise at Work Places, Residential and Public Buildings and Residential Territories.

Most of the standards are included in different Technical Regulations, adopted by the Government. Technical Regulation represents a “Sub-statutory Normative Act” as per Art. 7(9) of the “Law on Normative Acts” (2009). The requirements applicable to the Technical Regulations are described in the Law of Georgia on Product Safety and Free Movement Code (2012). According to the Code: “any binding acts, containing technical standards should be adopted in the form of Technical Regulations” (Article 56).

Adopted Technical Regulations, as any other normative acts of Georgia containing technical standards are registered with the registry of technical regulations maintained by the MoJ.

3.3. International Agreements

Georgia is a party to the following international legal instruments relating to environmental and social issues:

- The European Social Charter, 1965.
- European Convention on the Protection of the Archaeological Heritage, 1992.
- Convention for the Protection of the Architectural Heritage of Europe, 1985.
- Convention for the Safeguarding of Intangible Cultural Heritage, 2003.
- Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention), 1979.
- European Landscape Convention, 2000.
- Convention on Biological Diversity, 1992.
- Cartagena Protocol on Biosafety to the Convention on Biological Diversity, 2000.
- Convention to Combat Desertification, 1994.
- Framework Convention on Climate Change, 1992.
- Framework Convention on Climate Change, Kyoto Protocol, 1997.
- Aarhus Convention on Access to Information, Public Participation in Decision Making and Access to Justice in Environmental Matters, 1998.
- Vienna Convention for the Protection of the Ozone Layer, 1985.
- Montreal Protocol on Substances That Deplete the Ozone Layer and amendments made in London 1990, Copenhagen 1992, Vienna 1995, Montreal 1997, and Beijing, 1999.
- Geneva Convention on Long-Range Transboundary Air Pollution, 1979.
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 1989.
- Stockholm Convention on Persistent Organic Pollutants, 2001.
- Rotterdam Convention on the Prior Informed Consent for Certain Hazardous Chemicals and Pesticides in International Trade, 1998.
- Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention), 1979.
- Agreement on the Conservation of Bats in Europe (EUROBATS), 2001.
- Agreement on the Conservation of African-Eurasian Migratory Waterbirds, 2001.
- Paris Convention on the Protection of the World Cultural and Natural Heritage, 1972.
- Georgia has ratified 17 International Labor Organization (ILO) Conventions, among them all 8 ILO fundamental conventions:
 - Forced Labor Convention, 1930.
 - Freedom of Associations and Protection of the Right to Organize Convention, 1948.
 - Right to Organize and Collective Bargaining Convention, 1949.
 - Equal Remuneration Convention, 1951.
 - Abolition of Forced Labor Convention, 1957.
 - Discrimination (Employment and Occupation Convention), 1958.
 - Minimum Age Convention, 1973.
 - Worst forms of Child Labor Convention, 1999.

4. ENVIRONMENTAL STANDARDS AND TECHNICAL REGULATIONS

4.1. World Bank Safeguard Policies

WB OP 4.01 Environmental Assessment is considered to be the umbrella policy for the World Bank's environmental safeguard policies. These policies are critical for ensuring that potentially adverse environmental and social consequences are identified, minimized, and properly mitigated. These policies receive particular attention during the project preparation and approval process. The World Bank carries out screening of each proposed project to determine the appropriate extent and type of Environmental Assessment to be undertaken and whether or not the project may trigger other safeguard policies. The Borrower is responsible for any assessment required by the Safeguard Policies, with general advice provided by the World Bank staff. The safeguard policies and triggered by the ILMD project include:

Operational Policy	Triggers
Environmental Assessment (OP 4.01)	If a project is likely to have potential (adverse) environmental risks and impacts in its area of influence.
Pest Management (OP 4.09)	If procurement of pesticides is envisaged; If the project may affect pest management in the way that harm could be done, even though the project is not envisaged to procure pesticides. This includes projects that may (i) lead to substantially increased pesticide use and subsequent increase in health and environmental risk, (ii) maintain or expand present pest management practices that are unsustainable, not based on an IPM approach, and/or pose significant health or environmental risks.
Involuntary Resettlement (OP 4.12)	Physical relocation and land loss resulting in: (i) relocation or loss of shelter; (ii) loss of assets or access to assets; (iii) loss of income sources or means of livelihood, whether or not the affected people must move to another location.
Safety of Dams (OP 4.37)	If a project involves construction of a large dam (15 m or higher) or a high hazard dam; If a project is dependent upon an existing dam, or dam under construction.
Projects on International Waterways (OP 7.50)	If the project is on international waterway such as: any river, canal, lake, or similar body of water that forms a boundary between, or any river or body of surface water that flows through, two or more states (or any tributary or other body of surface water that is a component of this waterway); any bay, gulf, strait, or channel bounded by two or more states or, if within one state, re-recognized as a necessary channel of communication between the open sea and other states-and any river flowing into such waters.

4.2 Comparison between National Environmental Legislation and World Bank Requirements

The requirements of Georgian environmental legislation are in general comparable to World Bank policy approaches. However, there are also several differences between local legislation and World Bank policy requirements, the most substantial of which are summarized below. Georgian Environmental Impact Assessment (EIA) legislation does not require classification of activities into environmental categories A, B, and C, as it is established in OP/BP 4.01. Instead, the Georgian law distinguishes between activities that require an EIA and those that do not. None of the physical works that may be supported from the ILMD Project require EIA and the State ecological expertise. The national legislation does not provide

definition of an Environmental and Social Management Plan (ESMP) and does not require its preparation however Georgian legislation requires that EIA reports include a list of environmental mitigation measures and describes procedures for their implementation. Georgia is a party to the Aarhus convention and the disclosure of environmental information is made in line with the guiding principles of the Aarhus convention.

Below is the list of the activities that are regulated by construction technical rules and standards:

- Foundations of hydro technical (hydraulic) structures;
- Concrete and reinforced concrete structures made of thick silicate concrete;
- Hydro technical structures; basic provisions of designing;
- Organization of construction operations;
- Ground structures, bases and foundations;
- Isolation and lining coatings;
- Protection of constructions and structures from corrosion;
- Electrical- technical devices;
- Highways;
- Bridges and pipes;
- Rules of testing;
- Amelioration schemes and structures;
- Reinforced concrete constructions to be cast in and production of articles (goods);
- Metal constructions;
- Main pipelines;
- Provisions on production norms of material costs in construction;
- Norms of land allocation for main water conduits and sewage collectors;
- Norms of land allocation for amelioration canals.

5. ENVIRONMENTAL AND SOCIAL SCREENING

World Bank conducts environmental screening for each proposed investment project in order to determine the scale and character of its potential impacts on the natural and social environment. The rules and procedures for screening are described in WB OP 4.01. Environmental classification of projects is based on a number of factors: sensitivity of the location, scale of impact, duration of potential impact, etc. According to the World Bank policy there are three environmental categories: A, B and C.

The ILMD Project will not finance construction of new irrigation and drainage schemes, nor new dams and reservoirs. It is designed to rehabilitate the existing infrastructure and to improve and restore water delivery / drainage services to the areas that are currently covered or were covered with the existing schemes in the past and to improve flood control structures for protecting the investments in rehabilitation of the irrigation infrastructure. Environmental and social risks of ILMD Project are, therefore, medium. They are not expected to influence territories outside the project sites, neither to be significant or irreversible. Therefore, according to the *OP/BP 4.01 Environmental Assessment*, the ILMD Project is classified as environmental category B. Because not all schemes to be rehabilitated are known at the Project preparation stage, and because most of the environmental and social impacts of the Project interventions in various sites are going to be similar and predictable, the present ESMF was prepared as a

guidance of site-specific environmental work to be undertaken upon delivery of the detailed designs for individual schemes. This work implies development of site-specific ESMP, using the ESMP Checklist for the Rehabilitation of Irrigation and Drainage Schemes. If a proposed intervention is classified as environmental Category A, then it may not be supported by the Project and must be turned down.

Some of the ILMD Project activities under Component 1 may require temporary and/or permanent land acquisition / physical relocation of households and businesses, uprooting of trees and/or standing crops that leads to the loss of income. Although the design solutions will strive to minimize resettlement needs, they may not be entirely excluded or ruled out. Therefore, the ILMD Project triggers *OP/BP 4.12 Involuntary Resettlement*. The Resettlement Policy Framework (RPF) for application under Component 1 was prepared. Site-specific Resettlement Action Plans (RAPs) will be prepared, as required, once the detailed designs are available and the resettlement needs are clear. Works will be allowed only after the RAPs are implemented and compensations delivered to the affected people.

Under Component 2, the piloting of the land registration process may require resolving cases where landowners have extended their residences or land use onto State-owned land. Formalization of ownership could result in people losing access to State-owned land with negative economic impacts. Rather than applying OP4.12 to this component, however, it is agreed that a ‘Country Systems’ approach should be followed. In this case, the country system to be evaluated for equivalence and acceptability (per OP 4.00) are the Land Reform Strategy and Action Plan and Operations Manual, which set out the policy and standards to address such cases of loss of access to land, and the institutional mechanism which is being set up to implement them. The land registration pilots are governed by the Land Reform Strategy and Action Plan and the Operations Manual.

OP 4.09 Pest Management is triggered, because some agricultural areas, which had been out of irrigation due to deteriorated infrastructure, will be brought back to irrigation as a result of ILMD Project implementation. This is likely to stimulate agro-production, and subsequently – the use of pesticides. While there is no need to develop a Pest Management Plan, promotion of good pest and pesticide management practices, including Integrated Pest Management (IPM), is supported by the Project.

Some Irrigation schemes being rehabilitated under the ILMD Project are fed with water from the existing reservoirs. No new reservoirs will be constructed under the project, but because operation of some Project-supported schemes will depend on the integrity of the dams of the existing reservoirs, *OP/BP 4.37 Safety of Dams* is triggered. It means that for any scheme included for rehabilitation into the ILMD Project’s work program and dependent on a dam-supported reservoir, technical condition of such dam, as well as its operation and maintenance pattern will be examined and remedial actions will be undertaken as part of the Project, as required. More specifically, due diligence for ensuring dam safety may include updating of the dam safety information including river hydrology to determine the 10,000 years floods, undertaking physical works and/or providing additional equipment to address critical issues of dam safety, installing early warning system and establishing a dam safety panel to review dams-related documentation and advise on the required actions. The Government established the required dam safety panel to oversee compliance with national legislative and World Bank dam safety requirements before any irrigation and drainage rehabilitation contract is signed under the ILMD Project.

OP/BP 7.50 Projects on International Waterways is triggered. Most of the irrigation schemes of East Georgia, including those supported by the Project, abstract water from trans-boundary rivers Mtkvari and

Alazani, or their tributaries. Water drained from the agricultural lands in West Georgia is discharged to the rivers draining into the Black Sea. However, the Project interventions including investments under the irrigation and drainage rehabilitation and modernization subcomponent and the flood control improvement subcomponent will not increase water intake or discharge beyond the designed parameters of the existing schemes, because they will be strictly limited to the rehabilitation of the existing irrigation and drainage infrastructure without altering of their original capacities. On this basis, an exemption from the requirement of communication to riparians was granted by the World Bank's Regional Vice President.

6. POTENTIAL IMPACTS

The Project will be carried out nationwide, but in the first year of implementation the rehabilitation works will take place in Shida Kartli, Kvemo Kartli, (Kareli, Tetrtskharo and Marneuli districts) and Kakheti (Sagarejo and Gurjaani districts).

The potential positive and negative environmental and social impacts of the ILMD Project are described below for the construction and operation phases.

6.1 Construction phase impacts

Impacts on the landscape and biodiversity. During the construction period there may be damages to the vegetation cover from the movement of vehicles and earth works, and disturbance of the animal life from the excessive construction noise. Borrowing and mining for aggregates may cause erosion of slopes and river beds, disturbance of the aquatic life in rivers, as well as loss of aesthetic appearance of landscapes.

Generation of spoil material and construction waste. Rehabilitation works will cause generation of construction waste and spoil materials.

Noise, vibration, and emissions. Noise, vibration, and emissions will be generated in the course of the transportation of construction materials and operation of the heavy construction equipment. 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 the construction works.

Pollution with construction run-offs. As a result of oil and lubricant leakage from machinery and stock piled 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.

Impacts on archaeological sites. Limited risk of encountering archaeological sites is expected during the earth works. There are no known and registered cultural heritage sites along the corridors of the existing irrigation and drainage networks.

Work-site accidents. Physical works to be undertaken under the Project are not associated with any extraordinary risks for workers and other personnel. Common threats come from the 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.

Social impacts. Negative social and economic impacts may be caused if temporary and/or permanent use of private land plots cannot be avoided in the course of infrastructure rehabilitation. Informal land use along canals is even more likely to be encountered. Clearing servicing roads or otherwise getting access to the infrastructure for its rehabilitation may necessitate terminating encroachment into the right of way. Works on the irrigation and drainage schemes during the irrigation/drainage season may disrupt service provision to the customers, leading to the negative impact on their crops.

6.2 Operation phase impacts

Economic impacts. Rehabilitation of irrigation and drainage schemes will have generally positive impact on the rural population engaged in agriculture. It is expected to result in improved irrigation and drainage for cultivating approximately 33,500 ha. Irrigation will result in (i) abandoned agricultural land being brought back into production; (ii) an increase in yields of existing crop production; 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.

Increased water fees and poor collection rates. Over the last 15-20 years the irrigation and drainage systems significantly deteriorated, because no proper operation and maintenance has been provided. As a result, water users stopped paying fees as they were not getting adequate service. Fee collection rates dropped dramatically. Project investment into the rehabilitation of irrigation and drainage infrastructure may result in the increase of water fees. Improved irrigation and drainage services are believed to lead to higher efficiency of agriculture and increased incomes of service users. However this is a medium-term perspective. Meanwhile, collection rates may remain low or even drop further, leading to poor operation and maintenance of the rehabilitated schemes and their premature deterioration. The Project will contribute to improved irrigation service fee collection through (i) preparation of a national irrigation and drainage strategy which will define improved water charging policies; (ii) preparation of costs operation, maintenance and financing plans for Projects selected irrigation which will inform setting of water charges; and (iii) development of improved on farm water management arrangements including fee collection.

Competition for water use. Implementation of the ILMD Project will not directly influence competition for water use, because rehabilitation of schemes under the Project will not imply 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. Potential conflicts may arise from dissatisfaction from water users in schemes neighboring those rehabilitated under the Project, whose schemes will not be rehabilitated. Such conflicts can be mitigated through (i) public information explaining the criteria for scheme selection and (ii) public information to explain selection of schemes to be rehabilitated under other sources which will be explained in the national rehabilitation plan which the preparation of which is also supported under the Project.

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 health 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 are there 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 mining is not subject to environmental permitting in Georgia and there are no formal standards established for irrigation water quality.

Damage of aquatic ecosystems as a result of water intake and discharge. GA operates based on licenses for water intake issued by the Ministry of Environmental and Natural Resources Protection. However, the licensing procedure is not based on the environmental impact assessment of the permitted 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. In Georgia, there are 34 dams intended for irrigation purposes. The largest of them are: Sioni, Tbilisi, Algeti, Dalis Mta, and Zonkari dams. Dalis Mta is not operating at present. Zonkari reservoir is located in Tskhinvali region, which, *de facto*, is currently not under the control of the Georgian government. Tbilisi, Algeti and Sioni dams are in normal technical condition and are well functioning. All other dams are much smaller. They were supplied through pumping stations and are not operational at present. Early warning and monitoring systems of dams does not exist in the country. Installation of the early warning and monitoring systems for Sioni and Algeti reservoirs had started in 2008, however the works were taken on hold.

7. IMPACT MITIGATION

Most of the 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 defined for the design, construction, and operation phases. The ESMF presents a generic set of mitigation measures. Site-specific EMPs will provide mitigation measures selected from this set and specified as required, so that every EMP fits each individual scheme.

7.1 Design phase

Environmental and social considerations will be taken into account in the process of designing rehabilitation of the selected schemes in order to avoid or minimize the potential negative impacts. Detailed designed documentation will include analysis of water availability and suggested volumes of ecological water flow to be respected during operation of water intakes.

The final design documents' package will include a list of suggested borrow pits and vendors of natural construction materials in the vicinity of sub-project sites; suggested sites for temporary and final disposal of spoil and waste; suggested locations for access roads, construction camps, vehicle and machinery servicing, and storage facilities as required.

7.2 Construction phase

Degradation of landscapes and soil erosion. Earth works, including material borrowing, carry most risks to the landscapes and may cause erosion. To avoid or minimize these negative impacts, the following practices must be applied:

- Strip and store topsoil separately, in the nearest location clear of vegetation;
- Pile up excavated earth separately from topsoil, in the convenient location clear of vegetation;
- Minimize the time of keeping the excavated trenches open;
- Backfill excavated material to full extent and remove residual amount to the preliminary agreed upon location;
- Reinstatement of the work site by spread topsoil and stimulating re-vegetation as appropriate;
- Apply slope stabilization techniques (terracing, drainage, gabions, greening, etc.) as appropriate on the steep slopes prone to erosion;
- Do not extract gravel from watercourses. Mine for the material in the river bed away from the water stream and reinstate the area by leveling;
- Ensure proper lining of canals and adequate assembling of pipes to avoid water filtration, which may cause soil erosion along canals.

Landscape degradation may be minimized by using of the already existing quarries and spoil disposal sites. Construction camps, if required, are to be placed in areas with minimal vegetative cover and away from any important animal and plant habitats.

Waste management. Demolition debris and other construction waste will be temporarily stored in the specifically designated location at the work sites and will be finally disposed of at the sanitary landfills as agreed with the Solid Waste Management Company of Georgia and/or local authorities, as required by law. Excess material generated through earth works and borrowing will also be disposed in the

preliminary agreed locations that are environmentally sound for the placement of spoil. Because there are no specialized disposal sites for hazardous waste in most parts of Georgia, the used tires, filters, oils, and other similar waste from vehicle servicing will go to municipal landfills too, unless no sound options for recycling are available.

Noise and emissions. Dust from the construction site will be minimized, especially closer to the residential areas, by using closed/covered trucks for transportation of construction materials and debris and watering works sites in dry weather. The vehicles and machinery will be regularly checked, serviced, and equipped with effective exhaust mufflers to avoid excessive emissions and noise. Idling of engines will be disallowed.

Management of construction run-offs. 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 water release.

Chance finds. If any archaeological finds are encountered in the course of earth excavation works, the contractor will immediately take activity on hold and inform the client. The client shall contact the State Agency for Protection of Historical and Cultural Monuments and seek guidance on the further course of action. Works may resume only after receiving formal permission from the State Agency for Protection of Historical and Cultural Monuments.

Workers' Health and Safety. Works contractor will be obligated to ensure that the construction machinery and equipment is maintained in proper technical condition. Workers operating complex equipment must be adequately trained and strictly follow operation manuals. All personnel present at work sites must be supplied with relevant personal safety gear and instructed to permanently use it.

Social Impacts. If land acquisition and/or physical relocation of residents is required under Component 1, the RPF for ILMD Project Component 1 will be followed. After the approval of the final designs for individual interventions and setting an official cut-off date, the RAPs will be developed if required and discussed with the affected people. RAPs will be developed and implemented in a participatory manner, involving affected men and women, as it is required by the applicable Georgian legislation and WB policies. Compensation packages for the affected people will be worked out according to the guiding principles of RPF and be delivered prior to mobilization of works contractors to the given project site. A Grievance Redress Mechanism (GRM) is established to address cases of disputed compensation and any other grievances that PAPs might have with land and/or assets to be alienated by the project. The rehabilitation works will mainly be undertaken not during the irrigation season (in case of working canals) in order not to cause nuisance to water users. For those canals that are not functional, works may be carried out at any time of a year.

7.3 Operation phase

Mediating competition for water use. The 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. In such cases formal agreements are signed between water users. In most cases, HPPs are the secondary users, while the priority use is by irrigation. Overall, conflicts over water use are not acute in Georgia at present, partially due to abundance of the resource in most parts of the country, as well as due to lack of water delivery infrastructure and affordability problems. However, future economic development and growth, as well as possible long-term impacts of climate change may increase demand for water and limit its natural availability. Therefore, it is important that the new Water Law, currently in works, is expected to introduce principles of watershed management and improve regulations for water intake and discharge. Furthermore, the national irrigation strategy to be prepared under the Project will define arrangements for regulation of water abstraction by hydropower and irrigation users which will help to mitigate conflicts. The institutional development plan to be prepared for each irrigation scheme should include measures to facilitate resolution of disputes between irrigation users at a local level.

Ensuring affordability of services and sustaining O&M of rehabilitated schemes. Amelioration service is regulated by Georgian legislation and normative acts, as well as by contracts signed between the GA and water users. As the current amelioration service fee doesn't fully cover maintenance costs of the schemes, the government allocates subsidy from the State budget. Arrangements for operation and maintenance of amelioration systems is regulated by "the rules of technical maintenance of amelioration systems" approved by the decree dated November 25, #2-206 by the Minister of Agriculture. In the short to medium term perspective, the government is likely to continue regulating financial mechanism of O&M of the irrigation schemes that would include management of fees in the socially acceptable manner. Project will contribute to improved irrigation service fee collection through (i) preparation of a national irrigation and drainage strategy which will define improved water charging policies; (ii) preparation of costs operation, maintenance and financing plans for Projects selected irrigation which will inform setting of water charges; and (iii) development of improved on farm water management arrangements including for fee collection.

Ensuring safety of dams. Algeti and Sioni dams are two large irrigation dams that are already known to be related to the implementation of the ILMD project, and more dams may get involved depending on the choice of irrigation schemes to be rehabilitated under the Project. Because installation of early warning and monitoring systems at these two dams got interrupted in the past, completion of this undertaking is now planned as part of rehabilitation works on the Tbisi-Kumisi irrigation scheme (Algeti dam) and Kvemo Samgori irrigation scheme (Sioni dam). If other dam-dependant schemes are included into the Project, then their technical condition and operational modality will also be carefully examined, and actions taken according to the OP/BP 4.37. Overall, the dams that are related to any ILMD Project activities should be checked for identifying their technical integrity and ensuring presence of adequate monitoring systems. Also, Early Warning Systems, Emergency Preparedness Plans, and Emergency Action Plans should be developed and adopted for them, as well as annual inspection and reporting by the established dam safety panel.

In case of damage or failure of a reservoir dam, there is a designated entity - Agency for Managing Emergency and Urgent Situations - that is mandated to enter the site and undertake rescue operations.

Managing erosion, salinization, alkalization, and water logging. To prevent the erosion of lands in the irrigation command area, it is important to undertake anti-erosion measures 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 is 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 water-logging of agricultural areas. Water logging from excessive water supply is likely to decrease to a mere minimum as a result of installing and operating of water metering systems and levying of economically reasonable fees, which is an ongoing process and will be further supported by ILMD Project. Data on soil quality are essential for identifying areas where flood irrigation must not be applied to avoid salinization. Other irrigation technologies should be considered in the fields where physical and chemical characteristics of soil and the high water table make flood irrigation a non-favorable option.

Managing irrigation water quality. In order to prevent pollution of agricultural lands and agricultural produce with toxic compounds, it is recommended that water supply agency obtains and checks relevant surface water quality data available from the hydrological monitoring posts operating in the country. If the established maximum allowable concentration of toxic compounds is exceeded in the water abstracted for agricultural use, GA must address the Ministry of Environment and Natural Resources Protection, to have the source of pollution identified and eliminated, and the damage mitigated to the reasonable extent.

Protection of aquatic ecosystems. The GA carries licenses that are valid till 2015, for the water intake from specific river basins for the needs of specific irrigation schemes. These licenses represent the primary tool of regulation of water use, however they are based on water demand and on the scheme's design capacity of water intake rather than on the scientifically worked out amounts of ecological water flow required for sustaining aquatic ecosystems. At present, MEPA is in the process aligning the national environmental legislation with the guiding principles adopted in the EU. The new Water Law is in works, and MEPA is striving for the adoption of conventional new methodology for establishing ecological water flow in surface water bodies. It is expected that by the time of expiry of the licenses held by the GA, more advanced rules of licensing will be in place, and will apply from 2015 onwards. The same is expectation holds for regulation of discharged water quality.

Pesticide Use and IPM practices. Improving irrigation services is likely to enhance intensity of agriculture and to 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 supports development and delivery of extension and training material for sound pest and pesticide management to the water users of the Project area. Support includes provision of information on the Integrated Pest Management principles and guidelines on safe storing, handling, and application of pesticides.

Mitigating Social Impacts

Any negative social impacts resulting from private land acquisition necessitated under Component 1 will be addressed prior to the operating phase. Negative social impacts from land acquisition will be mitigated through the preparation and implementation of RAP following principles of impact assessment and compensation outlined in the RPF. These will be completed during the construction phase. During the operation phase there will be ongoing monitoring of RAP implementation including assessment of income and employment levels, standards of living and degree of satisfaction of affected persons. This ongoing monitoring will highlight any detrimental effects of RAP implementation, which can be addressed accordingly.

8. STAKEHOLDER CONSULTATION

According to the Constitution of Georgia, every citizen has a right to obtain information regarding the activities that may cause environmental impacts. Furthermore, Georgia is a party to the Aarhus Convention, which establishes the principles of public access to information regarding environmental issues. It calls for the involvement of all interested parties for achieving sustainable development.

Present ESMF was publicly disclosed through the web-site of MEPA and discussed with stakeholders during ILMD Project preparation. The ESMF, as updated at present, will be re-disclosed in country and through the World Bank's external web page. Site-specific ESMPs prepared for individual investments were also disclosed and discussed with project-affected people. The same practice of disclosure and public consultation will apply to the site-specific ESMPs to be produced for all investments to be identified and financed throughout the life of the Project.

9. GRIEVANCE REDRESS MECHANISM

In line with World Bank requirements, PPMD established the Project GRM for stakeholders. This mechanism should build up communication channels between ILMD Project and internal/external stakeholders.

Thus, PPMD can use several means for collecting feedback, inquiries or complaints of the stakeholders:

- Corporate phone numbers and email of PPMD that can be used by the Project stakeholders (any inquiries/complaints received via these will be transmitted to the Project level) [Tel: (+995 32) 2 47 01 01; E-mail: giorgi.kalandadze@mepa.gov.ge; Sophiko1@hotmail.com].

GRM follows the existing GA practice, yet supplements it with the following actions in order to create a comprehensive grievance redress mechanism as per World Bank requirements:

- In addition to the above channels, the stakeholder complaints / suggestions in relation to the Project planning and implementation can be made in writing, by email or by telephone to the following PPMD Contact Person:

Contact name	Sophie Berishvili, ES Consultant, PPMD
E-mail	Sophiko1@hotmail.com
Mobile Telephone	/ + 995 595 00 02 07 / +995 32 24 40 40 (574)
Address	6 Marshal Gelovani street, Tbilisi, Georgia

- The inquiries can also be communicated to the local authorities and contractors as well. namely, the Representatives of Sagarejo Mayor in Gori and Tetritskaro Communities, who will subsequently transmit these to PPMD Contact Person:

A sample grievance form for the Project is provided Attachment 5.

The current practice under ILMD Project is such that all inquiries, complaints and requests are collected centrally in GA chancellery unit, registered in the central database and then distributed to the relevant units / departments for consideration and response provision. Following this, a decision and/or response to the inquirer/complaint is communicated through the channel specified by her/him within 10 calendar days as per the General Administrative Code of Georgia (1999, amended in 2018).

The Project grievance mechanism adapts the current ILMD practice in that the grievances are administered by the PPMD Contact Person who receives the Project-related inquiries/complaints and enters them in the Community Inquiry and Grievance Logbook. Depending on the form of the inquiry, PPMD will reply until the inquirer is satisfied with the answer. Questions and requests that have not been answered to satisfaction of a stakeholder twice will be escalated as grievances and will be addressed by a committee including ILMD Project Manager, the Contractor’s Project Manager, and the local authority concerned.

PPMD will require its contactors to record any inquiries communicated to them and to transfer these to PPMD Contact Person for inclusion in the Logbook. Based on the nature of issues to be considered, PPMD will engage the contractors as needed when managing the received inquiries.

10. SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT AND MANAGEMENT PLANNING

Following the guiding principles of the World Bank policies and the national legislation, irrigation infrastructure proposed for rehabilitation with the ILMD Project support will undergo environmental and social screening. No high-risk works will be supported. Site-specific ESMPs will be prepared for moderate and low-risk rehabilitation works.

Responsibilities of various entities with respect to implementation of ESMPs and monitoring their implementation are briefly summarized below:

Design Consultants will be responsible for taking into account environmental and social aspects in the process of their work and strive for minimizing negative impacts through the design solutions. If development of ESMPs is made part of the design consultant tasks, the consultant will also be responsible for conducting this part of work in a participatory manner in consultation with local

stakeholders, and for incorporation of stakeholder comments as well as the feedback from the Project and the World Bank into the final versions of ESMPs.

Environmental Consultants may be hired by project implementing agency for developing ESMPs, if these functions are not integrated into the terms of reference of design consultants. Consultants' responsibilities pertaining environmental management planning processes are described above.

Works Contractors will be responsible for the incorporation of costs of ESMPs' implementation into their bids. ESMPs therefore must be included into all tender packages. Adherence to all requirements of ESMPs, included into their contracts, throughout the contract term will be mandatory for works contractors. Contractors shall possess all relevant licenses and permits.

Technical Supervisor(s) will be responsible for oversight over the proper implementation of civil works, including adherence to the measures provided in the ESMPs. Technical supervisor will identify any issues which may arise from inadequate application of mitigation measures provided in ESMPs and recommending corrective actions. Technical Supervisors shall verify that the Contractors possess all relevant licenses and permits. To adequately perform this duties Technical Supervisor(s) must include relevant expertise and skill mix in their team(s).

PPMD of MEPA will organize development of ESMPs and will ensure their compliance with the requirements of local legislation and the World Bank OPs; share draft ESMPs with the World Bank, and conduct public consultation meetings. All environmental documents will be developed in Georgian and English languages, disclosed nation-wide, and made available for local stakeholders in a convenient format. The project implementing entity will also ensure that ESMPs are included into the tender documents for civil works, so that potential bidders are able to incorporate costs related to ESMP implementation into their bids. ESMPs will be integrated into the works contracts and be mandatory for implementation like any other clause of works contracts. The Project implementing entity will also be responsible for monitoring ESMP implementation. Monthly field monitoring checklists will be used for regular environmental supervision of works. Progress reports on the outcomes of environmental supervision will be developed by project and submitted to the World Bank as part of the regular project progress reporting.

Ministry of Environment Protection and Agriculture is responsible for the control over adherence to the terms of environment permits and natural resource use licenses issued for physical works. The State Environment Agency under the MEPA carries out monitoring of surface water quality in the selected sampling points on the rivers of Georgia.

Regional and local authorities regulate transportation, disposal, or recycling of construction waste.

11. ENVIRONMENTAL AND SOCIAL MONITORING AND REPORTING

MEPA, acting as an implementing entity for Component 1 of the Project, will carry overall responsibility for the technical oversight of Project implementation. This will include monitoring compliance with environmental and social safeguard policies of the World Bank, guidelines provided in this ESMF, and requirements of site-specific ESMPs and RAPs. MEPA will use PPMD for delivering the task of environmental and social monitoring and reporting. This task may be delivered by PPMD's in-house staff or with the help of hired consultants. Currently, MEPA has no technical expertise to perform

environmental and social monitoring of projects implementation. Creating institutional capacity for performing this function is the condition for ILMD Project effectiveness and maintaining it throughout the Project life is a legally binding obligation.

Environmental and social oversight of physical works will require field supervision and inspection of documents (licenses, permits, log books, etc. of the construction contractors). A template for recording outcomes of environmental and social monitoring is attached to this ESMF. Such records will be generated at least once a month for each active construction site. MEPA will include narrative analytical reports on the status of environmental and social compliance of the Project implementation into regular progress reports to be furnished to the World Bank.

Any operational, health and safety (OHS) incidents that may occur at the Project sites must be immediately reported to the World Bank without postponing that till a regular progress report is due. Towards this end, PPMD must include the requirement to promptly report on OHS incidents into the contracts signed with the providers of works and work supervision consultants. Once a notice on an OHS incident arrives to the PPMD, it must be instantly communicated to the World Bank with the inclusion of sufficient detail known at the moment of reporting. Regular Project progress reports should include information on any OHS incidents that have occurred in the reporting period, along with follow-up action undertaken. If no incidents have occurred, every progress report should state so.

ATTACHMENTS

Attachment I: Environmental Management Plan Checklist for Irrigation Reconstruction Activities

Purpose of the IR Checklist

Main purpose of the Irrigation Reconstruction ESMP Checklist is to provide serve as a simple tool for identification of potential environmental impacts related to rehabilitation of the existing irrigation schemes. The ESMP checklist provides a set of associated environmental mitigation measures as well as monitoring measures that will help assess the implementation of the selected mitigation measures.

The design and concept of the EMP Checklist allows for it to be used either by specialists or non-specialists dealing with irrigation reconstruction in cases where environmental due diligence may not be required by the national legislation (existing irrigation systems) or a full-scale ESIA study is not needed. The checklist-type format has been developed to provide “example good practices” and designed to be user friendly and compatible with the World Bank safeguard requirements.

Description of the ESMP Checklist

The ESMP checklist-type format attempts to cover typical core mitigation approaches to reconstruction works with small, localized impacts on the existing irrigation systems. It provides the key elements of an ESMP to meet World Bank Environmental Assessment requirements under OP 4.01. The intention of this checklist is that it would be applicable as guidelines for the rehabilitation works contractors and constitute an integral part of bidding documents and contracts for contractors carrying out said works under the Bank-financed projects.

ESMP Checklist consists of two major sections:

Project Design and Specification: includes a descriptive part that characterizes the project, including institutional and legal requirements, technical project content, capacity building needs and a short overview of the public consultations process. This section could be up to two pages long. Attachments for additional information can be supplemented when needed.

Environmental Management and Monitoring Plan: includes an environmental and social management and monitoring table, 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”, the corresponding mitigation and monitoring measures should also be checked.

Directions for the Checklist use

Project Design and Specification section of the ESMP Checklist requires knowledge about basic general and technical information on sub-projects. The boxes should be filled with the required data, including information about the sub-project location, nature of the planned works, physical and natural environment around the sub-project site, required clearances to be obtained for the project implementation, and description of the process of public consultation on the sub-projects and its environmental and social implications. Note that some information required in this section

of the Checklist will not be available by the time it gets filled out and shall be entered once such information becomes available (e.g. name of works contractor, public consultation outcomes, etc.). Supplemental information can be attached to the document as required.

Environmental and Social Management Plan section provides a generic set of potential negative impacts and their mitigation measures which are typical for simple rehabilitation activities performed on the existing irrigation schemes. User of this Checklist may drop, re-formulate, or add mitigation measures to those provided in the readily available table as required based on the specificity of a given sub-project or of a work site.

Environmental and Social Monitoring Plan section should be filled in based on the user's iteration of the EMP. Namely, each mitigation measure should be entered as a separate line item in the Monitoring Plan, explaining where, how, how often, why, and by which entity the application of these measures should be monitored. Estimated costs of key monitoring parameters should also be provided. Note that the Monitoring Plan must cover both – construction and operation phases, construction phase meaning project-financed rehabilitation works, and operation means the use of rehabilitation scheme during and beyond the project life.

SECTION 1: PROJECT DESIGN AND SPECIFICATIONS

Institutional and Administrative Data				
1	Project name	<i>(Name of World Bank financed project)</i>		
2	Sub-project title	<i>(Name of Irrigation System)</i>		
3	Sub-Project location	<i>(Administrative region, province, municipality)</i>		
4	Watershed (river basin)			
Institutional Arrangements				
5	Institutional Arrangements (names and contacts)	<u>WB</u> <i>(Task team leader)</i>	<u>Borrower</u> <i>(implementing entity)</i>	<u>Local Counterpart or Recipient</u>
6	Implementation arrangements (names and contacts)	<u>WB Safeguard Supervision</u> <i>(WB Safeguard Specialists)</i>	<u>Borrower Safeguard Supervision</u> <i>(if external, to be entered once contracted)</i>	<u>Contractor</u> <i>(to be entered once contracted)</i>
Site Description				
7	Geographic name of the site			
8	Short description of the sub-project activities (type of planned works)			
8	Short narrative description of site (physical and natural environment):			
9	Locations and distance for the closest existing licensed material sourcing, especially aggregates, water, stones			
Legislation				
10	Information on national legislation governing sub-project activities naming (i) types of permits, licenses, and other clearances to be obtained at the stage of sub-project design, construction, and operation and (ii) entities who apply for and obtain these documents. (to be attached to ESMP once obtained)			
Public Disclosure				
11	Data on disclosure of ESMP and public consultations (Attach minutes of public consultation to this ESMP once produced)			
Capacity Building				
12	Will there be any capacity building specific to this irrigation scheme and location? Is such capacity building part of the overall project?	[] N or [] Y if Yes., attach the plan of capacity building to this Checklist		

SECTION 2: ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
General	Notification	<ul style="list-style-type: none"> (a) Public notified of the works through appropriate notification in the media and/or at publicly accessible sites (including the site of the works) (b) All legally required permits, agreements, licenses, and clearances acquired for the project activities (c) The Contractor formally agrees that all work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment.
	Worker Safety	<ul style="list-style-type: none"> (a) Workers' PPE will comply with international good practice (hardhats, masks, safety glasses, harnesses and safety boots, tec.) (b) First aide medical kits and fire extinguishers available at work site (c) Contact information for emergency services (medical, fire) posted on the information board at work site
Pollution Management	Air Quality	<ul style="list-style-type: none"> (a) Construction machinery and equipment maintained in adequate working condition on regular basis (b) Spoils storage piles compacted (c) Dust sources watered to minimize discomfort to nearby residents (d) Materials and wastes are transported under a covered hood of a truck (e) Vehicle speed under control to lessen suspension of road dust
	Noise	<ul style="list-style-type: none"> (a) Construction noise limited to working hours in the vicinity of settlements (b) Engine covers of generators, air compressors, and other powered mechanical equipment closed during operation, and equipment placed as far away from residential areas as possible
	Waste	<ul style="list-style-type: none"> (a) Sites for permanent waste disposal identified and agreed with local officials (b) Sites for temporary storage of waste allocated to prevent scattered dumping of waste on and around the work site (c) Reuse and recycle construction waste whenever feasible (except asbestos) (d) Arrangements made with licensed companies, as available, for removal and recycling of used tires and filters of construction vehicles and machinery (e) No open air burning of waste on and off the work site
Erosion Control		<ul style="list-style-type: none"> (a) Slope protection provided through bank compaction, rip-rapping on critical sections, or vegetative stabilization (b) Topsoil remove and stored aside for later use in site restoration (c) Excess material used for restoration of degraded areas
Handling Chance Finds		<ul style="list-style-type: none"> (a) In case of chance finds during earth works - all activity taken on hold, a State entity in charge of cultural heritage preservation notified in written, and work resumed upon formal permission received from the above entity
Protection of Water Bodies	Turbidity	<ul style="list-style-type: none"> (a) Sediment traps set up along rivers and/or gabions along banks to filter out eroded sediments (b) Erosion control measures applied as provided above
	Pollution	<ul style="list-style-type: none"> (a) Vehicle and machinery servicing prohibited in the immediate proximity to water bodies (b) Servicing and fueling of vehicles and machinery limited to an allocated site with non-permeable floor and capacity to contain spills if occurred (c) Arrangements made with licensed companies, as available, for removal and recycling/deactivation of used oils and sand/gravel saturated with oil products
Social Risk Management	Public relationship management	<ul style="list-style-type: none"> (a) Assigned local liaison person who is in charge of communication with and receiving requests / complaints from local population. (b) Consulted local communities to identify and proactively manage potential conflicts between an external workforce and local people. (c) Raised local community awareness about presence of an external workforce, their code of conduct, and included local communities in awareness activities. (d) Scheduled works beyond irrigation season to the extent possible in order to avoid/minimize service disruption. Inform local population about construction and work schedules, interruption of services, traffic detour routes and provisional bus routes, blasting and demolition, as appropriate. (e) Limited construction activities at night. When necessary, carefully schedule night work and inform affected community beforehand. (f) Properly marked and fence work site

		<ul style="list-style-type: none"> (g) No temporary storage of construction materials and waste occurs within cultivated land plots or any type of private property (h) Allocated areas for temporary storage of construction materials and waste so that free movement of traffic and pedestrians is not hindered\ (i) Grievance Redress Mechanism established and advertised (j) Clear provisions in place that damages incurred by contractor will be restored or compensated by contractor expediently and prior to completing sub-project
Labor management		<ul style="list-style-type: none"> (a) To the extent possible, work camps are not located in close proximity to local communities. (b) Locate and operate workers' camps in consultation with neighboring communities. (c) 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. (d) 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. Establish a temporary septic tank system for any residential labor camp without causing pollution of nearby watercourses. (e) 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. (f) Occupational Health and Safety and incident reporting procedure established.

SECTION 3: ENVIRONMENTAL AND SOCIAL MONITORING PLAN

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?)	Cost (if not included in project budget)	Who (Is responsible for monitoring?)
CONSTRUCTION PHASE						
1.						
2.						
3.						
...						
x.						
OPERATION PHASE						
1.						
2.						
3.						
....						
x.						

Attachment II: Monthly Field Social and Environmental 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					
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, eye-glasses, etc.)					
Servicing and fueling 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					
Incidents occurred/reported					
Grievance redress mechanism advertised, functioning, and					

grievance log present					
Land and resettlement impacts identified and resettlement compensation completed					
Accidental damages to community or individual assets restored/compensated					

Attachment III: Records of ESMF Public Consultation Process

Georgia Irrigation and Land Market Development Project Rehabilitation of Right Main canal of Kvemo Samgori Irrigation Scheme

Minutes of public discussion on Environment Management Plan

Place of meeting: Building of Sagarejo Democratic Engagement Centre. #240 Rustaveli str., Sagarejo

Date: 10.02.2015

The meeting was convened by representatives of regional service of United Amelioration Systems Company of Georgia.

Attendees of the meeting:

Irakli Napetvaridze- Director of Shida Kartli Regional Service of United Amelioration Systems Company of Georgia

Ushangi Tabagari-Head of Kvemo Samgori Systemic Division

Eka Skhirtladze –Senior Specialist of Investment Programs Division of United Amelioration Systems Company of Georgia.

Ketevan Katsadze – Senior Specialist of PR Division of United Amelioration Systems Company of Georgia

George Bjhalava – Representative of “GAMMA” Ltd

Levan Tskhovrebashvili- Engineer, Consultant to the Ministry of Agriculture of Georgia

Local representatives of United Amelioration Systems Company of Georgia and farmers also attended the meeting. (See app.)

Irakli Napetvaridze greeted the audience and introduced them the aim of the visit. It was mentioned that the meeting was convened for the purpose to discuss Environment Management Plan for the design of “Rehabilitation of Right Main canal of Kvemo Samgori Irrigation Scheme” which would be implemented under the World Bank funding.

Ekaterine Skhirtladze spoke about the overall objective of the project, its components. She mentioned that population should be more careful in polluting and damaging of rehabilitated canals. There will be very strict monitoring from GA towards any violation such as break out of canals, damage of gates, and pollution of irrigation canals with waste and different kind of water.

Levan Tskhovrebashvili made a brief review of design and also of the current technical condition of the scheme and asked the author of the document, representative of “GAMA” Ltd –George Bjhalava to discuss important aspects of Environment Management Plan.

George Jalava made a brief review of Environment Management Plan and spoke about number of important issues; arrangement of construction infrastructure; waste management, liabilities of Construction Company towards population.

Number of violations, sanitary-environmental conditions that were detected on the adjacent territory of the beneficiary villages were registered and mentioned in the document.

G. Bjhalava also spoke about legislation framework, that regulates waste management, rational use of water, protection of soil and atmospheric air, periodic monitoring which would be implemented by different agencies;

Question: Does the current design envisage rehabilitation of on-farm network?

Answer: The current rehabilitation design doesn't envisage repair of on-farm network.

Question: When will rehabilitation of on-farm network be implemented?

Answer: On the first stage only rehabilitation of main system is envisaged. After, organizational forms of farmers' unification should be defined and established.

Several questions were raised with respect to repair of on-farm network, irrigation water fee, payment terms and coincidence of rehabilitation with irrigation season;

Environment Management Plan was published on the official webpage of United Amelioration Systems Company of Georgia. Printed version of the document was available for any interested person in the regional office of the Company. Locals were informed about public discussion via posted announcements in the villages (announcements were posted on February 4, 2015)





საქართველოს ორგანიზაციის და მინის ზაზრის განვითარების პროექტი (GILMDP)

გარემოზე ზემოქმედების მართვის გეგმის საჯარო განხილვა

ქვემო სამგორის სარწყავი სისტემის მარჯვენა მაგისტრალური არხის რეაბილიტაცია

ქ. სავსიძე

თარიღი: *10/02/15*

#	სახელი და გვარი	მოქალაქე/ორგანიზაცია	მისამართი	საკონტაქტო ინფორმაცია (მობ. ტელეფონი)	ხელმოწერა
1	<i>ბესარიძე მძინარე</i>	<i>სოფ. მხარეთა ნახშირბაზარი</i>	<i>სოფ. მხარეთა</i>	<i>597 85 10 33</i>	<i>[Handwritten Signature]</i>
2	<i>გოჩა ბერიძე</i>	<i>სოფ. მხარეთა ფილიალი</i>	<i>სოფ. მხარეთა</i>	<i>595 07 54 16</i>	<i>[Handwritten Signature]</i>
3	<i>თომიძე მუხომბეიძე</i>	<i>მუნიციპალიტეტის უბრის სავსიძე</i>	<i>სავსიძე</i>	<i>595 02 79 32</i>	<i>[Handwritten Signature]</i>
4	<i>თაყაიშვილი ვახტანგ</i>	<i>სოფ. ვახტანგ</i>	<i>ვახტანგ</i>	<i>595 93 46 00</i>	<i>[Handwritten Signature]</i>
5	<i>ნაკაიძე ნუკა</i>	<i>ქ. სავსიძე</i>	<i>ქ. სავსიძე</i>	<i>555 92 03 60</i>	<i>[Handwritten Signature]</i>
6	<i>აბაშიძე მამუკა</i>	<i>" - "</i>	<i>ქ. სავსიძე</i>	<i>591 01 12 79</i>	<i>[Handwritten Signature]</i>
7	<i>ბერიძე ვახტანგ</i>	<i>" - "</i>	<i>ქ. სავსიძე</i>	<i>591 01 11 53</i>	<i>[Handwritten Signature]</i>
8	<i>ბერიძე მუხომბეიძე</i>	<i>ქ. სავსიძე</i>	<i>სავსიძე</i>	<i>595 50 88 88</i>	<i>[Handwritten Signature]</i>
9	<i>ვახტანგ ვახტანგ</i>	<i>სოფ. ვახტანგ</i>	<i>ვახტანგ</i>	<i>599 95 28 67</i>	<i>[Handwritten Signature]</i>
10	<i>ვახტანგ ვახტანგ</i>	<i>სოფ. ვახტანგ</i>	<i>ვახტანგ</i>	<i>598 82 22 24</i>	<i>[Handwritten Signature]</i>
11	<i>ვახტანგ ვახტანგ</i>	<i>სოფ. ვახტანგ</i>	<i>ვახტანგ</i>	<i>555 13 40 14</i>	<i>[Handwritten Signature]</i>
12	<i>ხაჩიძე ნუკა</i>	<i>სოფ. ნუკა</i>	<i>ნუკა</i>	<i>593 56 02 93</i>	<i>[Handwritten Signature]</i>
13	<i>ვახტანგ ვახტანგ</i>	<i>სოფ. ვახტანგ</i>	<i>ვახტანგ</i>	<i>599 95 1 07 4</i>	<i>[Handwritten Signature]</i>
14	<i>ვახტანგ ვახტანგ</i>	<i>სოფ. ვახტანგ</i>	<i>ვახტანგ</i>	<i>599 44 92 72</i>	<i>[Handwritten Signature]</i>
15	<i>ვახტანგ ვახტანგ</i>	<i>სოფ. ვახტანგ</i>	<i>ვახტანგ</i>	<i>593 99 66 93</i>	<i>[Handwritten Signature]</i>
16	<i>ვახტანგ ვახტანგ</i>	<i>სოფ. ვახტანგ</i>	<i>ვახტანგ</i>	<i>599 56 14 23</i>	<i>[Handwritten Signature]</i>

17	արվեստի Լիկեն			591-01-12-80	Զոլե
18	գրողների Երկերի			595-59-88-50	Իր
19	Գրական ակադեմիա			557 40 84 85	Զոլե
20	արվեստի համաժողով			595-49 76 24	ար Կ
21	Մանկավարժական Երկեր			595-904-943	Զոլե
22	արձակուրդային Երկեր			595-1677 73	Զոլե
23	Մանկավարժական Երկեր			598 154 12 4	Զոլե
24	Գրական ակադեմիա			593-62 96 64	Զոլե
25	արձակուրդային Երկեր			593 211 68 6	Զոլե
26	Մանկավարժական Երկեր			591 - 01 - 11.54	Զոլե
27	Գրական ակադեմիա			591 29 59 66	Զոլե
28	Մանկավարժական Երկեր			593 65 40 50	Զոլե
29	Մանկավարժական Երկեր	Խոսքեր		568 42 43 41	ա. Գր
30	Մանկավարժական Երկեր			591 - 51 - 72 - 53	Զոլե
31	Մանկավարժական Երկեր			555 20 52 30	Զոլե
32	Մանկավարժական Երկեր			593 61 49 92	Զոլե
33	Մանկավարժական Երկեր	Խոսքեր		577 05 50 83	Զոլե
34	Մանկավարժական Երկեր			599 - 49 49 02	ա. Կր
35	Մանկավարժական Երկեր				
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37	Գրական Երկեր	Մանկավարժական Երկեր	Գրական Երկեր	577 777 111	Զոլե
38	Գրական Երկեր	Մանկավարժական Երկեր	Գրական Երկեր	595-01-79-33	Զոլե
39	Գրական Երկեր	Մանկավարժական Երկեր	Գրական Երկեր	595 38 10 38	Զոլե
40	Գրական Երկեր	Մանկավարժական Երկեր	Գրական Երկեր	595-42-15-15	Զոլե
41	Գրական Երկեր	Մանկավարժական Երկեր	Գրական Երկեր	593-48-48-18	Զոլե
42	Գրական Երկեր	Մանկավարժական Երկեր	Գրական Երկեր	24-36-61	Զոլե
43	Գրական Երկեր	Մանկավարժական Երկեր	Գրական Երկեր	591-60-60-55	Զոլե
44	Գրական Երկեր	Մանկավարժական Երկեր	Գրական Երկեր	595 90 49 41	Զոլե
45	Գրական Երկեր	Մանկավարժական Երկեր	Գրական Երկեր	595 90 49 40	Զոլե
46	Գրական Երկեր	Մանկավարժական Երկեր	Գրական Երկեր	595 40 49 20	Զոլե
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Georgia Irrigation and Land Market Development Project
Rehabilitation of Algeti reservoir dam, instrumental monitoring system of hydro-technical structures, main canal of Tbisi-Kumisi irrigation scheme and water delivering pipelines to “Khaishi” and “Marabda” massifs

Minutes of public discussion on Environment Management Plan

Place of meeting: Building of Tetrtskaro Municipality Governance. (Address: #34, Tamar Mepe str, Tetrtskaro)

Date: 02.02.2015

The meeting was convened by representatives of Tetrtskaro Municipality Governance and regional service of United Amelioration Systems Company of Georgia.

Attendee of the meeting:

Besik Tsiklauri – Head of Tetrtskaro municipality Governance;

Kakha Samkharadze- First Deputy Head of Tetrtskaro Municipality Governance;

Vakhtang Gardapkhadze – Director of Kvemo Kartli Regional Service of United Amelioration Systems Company of Georgia

Eka Skhirtladze –Senior Specialist of Investment Programs Division of United Amelioration Systems Company of Georgia.

Ketevan Katsadze – Senior Specialist of PR Division of United Amelioration Systems Company of Georgia

Valerian Mchedlidze- Head of Amelioration Department of the Ministry of Agriculture of Georgia

George Bjhalava – Representative of “GAMA” Ltd, the company prepared the EMP

Lali Durmishidze -Projects Manager; Consultant to the Ministry of Agriculture of Georgia

Levan Tskhovrebashvili- Engineer, Consultant to the Ministry of Agriculture of Georgia

Tamar Tsintsadze – Monitoring and Evaluation Specialist; Consultant to the Ministry of Agriculture of Georgia

Local representatives of Municipality Governance and United Amelioration Systems Company of Georgia, village trustees and farmers also attended the meeting. (See app.)

Vakhtang Gardapkhadze greeted the audience and introduced them the aim of the visit. It was mentioned that the meeting was convened for the purpose to discuss Environment Management Plan for the design of “Rehabilitation of Algeti reservoir dam, instrumental monitoring system of hydro-technical structures, main canal of Tbisi-Kumisi irrigation scheme and water delivering pipelines to “Khaishi” and “Marabda” massifs”, which would be implemented under the World Bank funding.

V. Gardapkhadze asked the author of the document, representative of “GAMA” Ltd –George Bjhalava to discuss important aspects of Environment Management Plan.

George Bjhalava made a brief review of Environment Management Plan and spoke about number of important issues; arrangement of construction infrastructure; waste management, liabilities of Construction Company towards population.

Technical condition of the canal has been significantly deteriorated due to non-proper operation of Tbisi-Kumisi irrigation scheme that caused reduction of its flow rate. Number of violations, sanitary-environmental conditions that were detected on the adjacent territory of the beneficiary villages were registered and mentioned in the document.

G. Bjhalava also spoke about legislation framework, that regulates waste management, rational use of water, protection of soil and atmospheric air, periodic monitoring which would be implemented by different agencies;

Lali Durmishidze addressed the population not to pollute and damage rehabilitated canals. It's a great support from the Government, though it's a loan to be paid by future generation. Therefore the Government will be very strict towards any violation and will not close eyes on vandal facts, such as break out of canals, damage of gates, and pollution of irrigation canals with waste and different kind of water.

Improper operation, damage and pollution of rehabilitated canals will be wrongly reflected on Donor Organization's decision to continue investing in the region. While there are plenty of problems and issues in the region and on the existing irrigation scheme that need to be solved.

Question: Trees that grew on the berm of the canal and their root system cause problem. How should the problem be solved?

Answer: the Botanists, engaged in the research process revealed plants and bushes that grew on the adjacent territory of the canal and pipeline: eglantine, locoweed, blackberry, grakle, campanula and other low-value plants and trees. The rehabilitation design envisages cutting and uprooting of such plants. Afterwards, refilling of the berm and restoration of the canal will take place.

Question: Absence of on-farm network causes flooding of several districts and road of the village. Will this issue be address through the project implementation?

Answer: Rehabilitation works designed at present do not envisage repair of on-farm network. However this may be considered later under the frames of the ILMDP.

Question: What is the reason that irrigation water isn't supplied to the village Kumisi, which is the ultimate point of this irrigation system?

Answer: The project envisages rehabilitation of the main canal that will facilitate reduction of water loss, leakage, increase of debit and finally water will be sufficient for all beneficiary on-farm networks.

Several questions were raised with respect to repair of on-farm network, irrigation water fee, payment terms and coincidence of rehabilitation with irrigation season.

Environment Management Plan was published on the official webpage of United Amelioration Systems Company of Georgia. Printed version of the document was available for any interested person in the regional office of the Company. Locals were informed about public discussion via posted announcements in the villages (announcements posted on January 26, 2015).



საქართველოს ირიგაციისა და მიწის ბაზრის განვითარების პროექტი (GILMDP)

გარემოზე ზემოქმედების მართვის გეგმის საჯარო განხილვა

ტბისი-კუმისის სარწყავი სისტემის რეაბილიტაცია

10	ნონა ჯორჯიანი	ბათუმი	სოფ. ბათუმი	595-393-317	გ. ბერიძე
11	ერეკლე სომხიძე	ჭიხტყვი	სოფ. ჭიხტყვი	598-05-65-45	მ. ბერიძე
12	ივანე მუჭყელიანი	ბათუმი	სოფ. ბათუმი	591-81-95-04	მ. ბერიძე
13	ვალერიან ჭყავიძე	ბათუმი	სოფ. ბათუმი	558-12-35-21	მ. ბერიძე
14	თეიმურაზ ჭყავიძე	ბათუმი	სოფ. ბათუმი	598-92-68-09	მ. ბერიძე
15	მუხამედ მუხამედოვი	სოფ. მუხამედოვი	სოფ. მუხამედოვი	577-71-69-53	მ. ბერიძე
16	ლევან ჯანაშვილი	სოფ. მუხამედოვი	სოფ. მუხამედოვი	577-78-14-78	მ. ბერიძე

17	გიორგი მახარაშვილი	სოფ. სოფ. მუხამედოვი	სოფ. მუხამედოვი	599 123 599	მ. ბერიძე
18	ივანე ჯანაშვილი	სოფ. სოფ. მუხამედოვი	სოფ. მუხამედოვი	551-40-77-17	მ. ბერიძე
19	ივანე მუხამედოვი	სოფ. მუხამედოვი	სოფ. მუხამედოვი	577 98 00 44	მ. ბერიძე
20	გიორგი ჯანაშვილი	სოფ. სოფ. მუხამედოვი	სოფ. მუხამედოვი	599 80 53 55	მ. ბერიძე
21	ვანო მახარაშვილი	სოფ. სოფ. მუხამედოვი	სოფ. მუხამედოვი	593 31 52 80	მ. ბერიძე
22	ნუგზარ მუხამედოვი	სოფ. მუხამედოვი	სოფ. მუხამედოვი	574 95-47-50	მ. ბერიძე
23	მუხამედოვი მუხამედოვი	სოფ. მუხამედოვი	სოფ. მუხამედოვი	574 10-90-60	მ. ბერიძე
24	სერგეი მუხამედოვი	სოფ. მუხამედოვი	სოფ. მუხამედოვი	599-97-69-85	მ. ბერიძე
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Georgia Irrigation and Land Market Development Project
Rehabilitation of Main canal, Arashenda Branch, secondary and tertiary distribution canals of
Zeda Ru Irrigation Scheme

Minutes of public consultation on Environment Management Plan

Place of meeting: Building of Municipality Governance of the Village Shindisi

Date: 24.03.2015

The meeting was convened by Shida Kartli Regional Director of the UASCG and representatives of regional service of United Amelioration Systems Company of Georgia.

Attendee of the meeting:

Irakli Napetvaridze- Shida Kartli Regional Director of United Amelioration Systems Company of Georgia

Gia Tsverava-Deputy Head of Gori Municipality Governance

Eka Skhirtladze –Specialist of International Projects Service of United Amelioration Systems Company of Georgia.

Ketevan Katsadze –Specialist of PR Service of United Amelioration Systems Company of Georgia

George Bjhalava – Representative of “GAMMA” Ltd

Gabriel Mazmishvili-Director of Design Company “GEO”, the author of the detailed design

Local representatives of United Amelioration Systems Company of Georgia and farmers also attended the meeting. (See app.)

Irakli Napetvaridze greeted the audience and introduced them the aim of the visit. He said that the meeting was convened for the purpose to discuss Environment Management Plan for the design of “Rehabilitation of main canal, Arashenda branch, and secondary and tertiary distribution canals of Zeda Ru irrigation scheme” which would be implemented under the World Bank funding.

Eka Skhirtladze made a brief review of the project and asked the author of the document, representative of “GAMA” Ltd –George Bjhalava to discuss important aspects of Environment Management Plan.

George Bjhalava made a brief review of Environment Management Plan and spoke about number of important issues; arrangement of construction infrastructure; waste management, liabilities of Construction Company towards population.

Number of violations, sanitary-environmental conditions that were detected on the adjacent territory of the beneficiary villages were registered and mentioned in the document.

Irakli Napetvaridze and Gia Tsverava addressed the farmers to participate in waste management. Tsverava said that installation of trash containers in the villages of Gori municipality is planned.

Irakli Napetvaridze said that the Government would be very strict towards any violation and certain fines would be imposed on violators.

G. Bjhalava also spoke about legislation framework, that regulates waste management, rational use of water, protection of soil and atmospheric air, periodic monitoring which would be implemented by different agencies;

Irakli Napetvaridze said that those farmers who owned registered land plots would have benefits in the payment of service fee (payment by installments) and promoted farmers to register land plots.

Farmers said that there were number of problems in land registration and asked representatives of the municipality to assist them in the aforementioned issue.

Question: Is it possible to engage locals in construction-rehabilitation of the scheme?

Answer: it'll depend on the decision of the construction company (winner of the tender).

Question: will rehabilitation cause increase of water service fee?

Answer: No increase of water service fee is envisaged at this stage.

Several questions were raised with respect to payment terms and coincidence of rehabilitation with irrigation season;

Environment Management Plan was published on the official webpage of United Amelioration Systems Company of Georgia. Printed version of the document was available for any interested person in the regional office of the Company. Locals were informed about public discussion via posted announcements in the villages (announcements were posted on March 18, of the current year).



Attachment IV: Grievances Submission Form

Grievance Submission Form	
Name, Last name	
Contact Information Please indicate the preferable means of communication (Mail, Telephone, E-mail)	<input type="checkbox"/> Mail: Please indicate the postal address: _____ _____ _____ <input type="checkbox"/> Telephone: _____ <input type="checkbox"/> E-mail: _____
The language desirable for the communication	<input type="checkbox"/> Georgian <input type="checkbox"/> English <input type="checkbox"/> Russian
Describe the grievance/claim: What is the complaint about? What is the claim?	
Date of Negotiation:	Resolution of Negotiation:
What is the basis of your claim?	
Signature: _____ Date: _____	