Initial Environmental Examination

PUBLIC

Project Number: 52339-001

November 2023

Georgia: Modern Skills for Better Jobs Sector Development Program, Subprogram 1

For VET school: Kharagauli

Prepared by Skills Agency of Ministry of Education and Science of Georgia for the Asian Development Bank (ADB).

Supplementary IEE for Kharagauli, VET school

Addendum to IEE for Modern Skills for Better Jobs Sector Development Program

Project Number: 52339-001
Preparation Date: November 2023
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Proposed Loan

Georgia: Modern Skills for Better Jobs Sector Development Program

Prepared by the Government of Georgia for the Asian Development Bank.

CURRENCY EQUIVALENTS
(as of 13 January 2023) Currency unit – lari (GEL)

GEL1.00	=	€0.0.35	or	$0.37
$1.00	=	GEL 2.68	or	€0.93
€1.00	=	GEL 2.88	or	$1.08

WEIGHTS AND MEASURES

dbA	–	Decibel
Hz	–	Hertz
Kg	–	Kilogram
Mg	–	Milligram
Mm	–	Millimeter

NOTE

(i) In this report, "$" refers to United States dollars.

ABBREVIATIONS

ADB	-	Asian Development Bank
ACM	-	Asbestos-containing materials
CBTE	-	Competency-based training and assessment
COVID-19	-	Coronavirus disease
CSOs	-	Civil society organizations
EAC	-	Environmental Assessment Code
EIA	-	Environmental impact assessment
EHS	-	Environmental, health and safety
EMF	-	Electromagnetic field
EMP	-	Environmental management plan
EMS	-	Environmental management system
GDP	-	Gross domestic product
GFP	-	Grievance focal person
GoG	-	Government of Georgia
GRM	-	Grievance redress mechanism
GRCE	-	Grievance redress committee
GRCN	-	Grievance redress commission
ICNIRP	-	International Commission on Non-Ionizing Radiation Protection
ICT	-	Information and communications technology
IEE	-	Initial environmental examination
IFC	-	International Finance Corporation
IGA	-	Income-generation activity
IMF	-	International Monetary Fund
IUCN	-	International Union for Conservation of Nature
MEPA	-	Ministry of Environmental Protection and Agriculture
MES	-	Ministry of Education and Science

MOESD	-	Ministry of Economy and Sustainable Development
MOF	-	Ministry of Finance
MOIDPLH SA	-	Ministry of Internally Displaced Persons from the occupied territories, Labor, Health and Social Affairs
MRDI	-	Ministry of Regional Development and Infrastructure
NBSAP	-	National Biodiversity Strategy and Action Plan
NCEQE	-	National Center for Education Quality Enhancement
NEETs	-	Not in education, employment or training
NGOs	-	Non-governmental organizations
NQF	-	National qualifications framework
PIU	-	Project implementation unit
PPP	-	Public–private partnership
PSC	-	Program steering committee
REA	-	Rapid environmental assessment
SFF	-	State Forest Fund
SPS	-	Safeguard Policy Statement
SSEMPs	-	Site-specific environmental management plans
SSOs	-	Sector skills organizations
TA	-	Technical assistance
VET	-	Vocational education and training
WBL	-	Work-based learning
CSC	-	Construction Supervisory Consultant

Contents

EXECUTIVE SUMMARY

I. A. INTRODUCTION

1. This Supplementary Initial Environmental Examination (SIEE) is an addendum to the Initial Environmental Examinations (IEEs) prepared in December 2020, in October 2021, and in September 2022, which have been prepared for the Modern Skills for Better Jobs Sector Development Program in Georgia. Following document have been prepared based on the updated detailed design of the Kharagauli, VET school. Preparation of the addendum of the IEE was caused because update of detailed design, the selection of specific programs and the identification of expected impacts and mitigation measures.

2. The program implementing unit (PIU) was established in Q1 2021 under Ministry of Education and science of Georgia implementing the Modern Skills for Better Jobs Sector Development Program. Within the framework of the proposed IEE, the tender procedure will be carried out in one tender: Kharagauli VET school.

3. The Government of Georgia (GoG) has declared human capital development as one of the pillars for economic and social development[1]1. Vocational education and training (VET) is the responsibility of the Ministry of Education and Science (MES). Public VET colleges are eligible for all five types of funding, while private colleges are eligible for voucher funding for short and long-term programs in priority sectors. The VET sector is regulated by the Law of Georgia on Vocational Education 2018[2] and Law on Education Quality.[3] In 2019, there were 90 VET institutes (52 private and 38 public), including 66 vocational colleges, 8 general education schools and
16 higher education institutions delivering long-term VET programs. Private VET institutes represent almost 60.0% of all institutes. Most of these are located in cities where the socio-economic status of potential students is higher as people can afford to pay tuition fees.[4] In 2018-2019, 11,853 students (66% in public and 34% in private sector) were enrolled in VET. This is less than 3% of the youth cohort (15-24-year olds).

4. The program is aligned with the GoG's key economic strategies: (i) Georgia 2020, the country's overarching socio-economic strategy, identifies enhancing skills as a key socio-economic development goal;[5](ii) the Government Program 2019−2020 identifies education and economic growth as priority reform areas; [6]and (iii), the Regional Development Programme of Georgia (2018−2021) prioritizes human resource development.[7] The project supports the GoG efforts to transform the vocational education and training (VET) sector. The program is aligned with the following impact: inclusive economic growth strengthened.[8] It will result in the following outcome: a responsive VET network promoting excellence in skills development strengthened. Proposed program reform areas are: (i) quality and relevance of VET in priority economic sectors improved; (ii) access to, and inclusiveness of, the VET system increased; and (iii) institutional framework strengthened through increased private participation in VET.[9]

5. The program will be implemented from 2021 to 2026 (6 years). An inter-agency program

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[1] Government of Georgia. Freedom, Rapid Development, Prosperity: Government Platform 2016-2020. Tbilisi.
[2] Parliament of Georgia. 2018. *Law of Georgia on Vocational Education.* Tbilisi.
[3] Parliament of Georgia. 2010. *Law on Georgia on Education Quality.* Tbilisi.
[4] VET is mostly publicly funded in Georgia. Until 2019, only institutes established by the state or with state participation were eligible for state funding. Now private VET institutes are eligible for state funding for programs in priority skills areas.
[5] GoG. 2014. *Socio-economic Development Strategy of Georgia "GEORGIA 2020."* Tbilisi
[6] GoG. 2019. *Government Program 2019−2020*. Tbilisi
[7] GoG. 2018. Regional Development Program of Georgia 2018−2021. Tbilisi
[8] GoG. 2014. Socio-Economic Development Strategy: Georgia 2020. Tbilisi.
[9] The design and monitoring framework is in Appendix 1 of the Report and Recommendation of the President

steering committee (PSC) was established in 17/02/2022 to guide the executing agency and monitor overall program performance and outcome.

6. A consolidated Supplementary initial environmental examination (IEE) for all selected VET schools are being prepared in accordance with the ADB's Safeguard Policy Statement (2009). The project specific environmental management plan (EMP), as part of Supplementary IEE is designed to avoid and compensate the adverse environmental impacts that may result from the project works and considers phases of the project cycle. The project is expected to have temporary and site-specific adverse impacts on the environment. Supplementary IEE for selected sites provides an overview of the project-specific environmental monitoring and includes the timeframe and responsibilities for carrying out the monitoring process and describes Grievance Redress Mechanism procedure, results of public consultation and participation process.

B. POLICY AND LEGAL FRAMEWORK

7. Georgian legislation comprises the Constitution of Georgia, environmental laws, international agreements, subordinate legislation, normative acts, presidential orders and governmental decrees, ministerial orders, instructions, and regulations. Along with the national regulations, Georgia is signatory of several international conventions, including those related to environmental protection. The Ministry of Environmental Protection and Agriculture of Georgia (MEPA) is responsible for regulating the activities that affect the natural environment. The key environmental laws affecting the project are discussed below. The IEE report has been prepared keeping in view the following national and international policies, laws, regulations, and guidelines:

(i) Constitution of Georgia, 1995

(ii) Law on Environmental Protection, 1996

(iii) Environmental Assessment Code, 2017

(iv) Third National Environmental Action Program of Georgia

(v) Law on Licenses and Permits, 2005

(vi) Law of Georgia on Subsoil, 1996

(vii) The Waste Management Code, 2015

(viii) Law on Protection of Atmospheric Air, 1999

(ix) Forest Code of Georgia (1999).

(x) Law on Water,1997

(xi) Law on Wildlife,1997

(xii) Law on Red List and Red Book, 2003

(xiii) Law on Soil Protection, 1994

(xiv) Law on System of Protected Areas, 1996

(xv) Law on Compensation for Damage Caused by Hazardous Substances,1999

(xvi) Civil Code of Georgia,1997

(xvii) Labor Code of Georgia, 2010

(xviii) Law on Public Health, 2007

(xix) Law on Compensation of Land Substitute Costs and Damages,1997

(xx) Law on Agricultural Land Ownership,1996

(xxi) Law on Rules for Expropriation of Property for Public Needs, 1999

(xxii) Law on State Property, 2010

(xxiii) Law on Labor Safety, 2018

(xxiv) Law on Cultural Heritage, 2007

(xxv) Law on Spatial Development and Basis for City-building, 2005

(xxvi) ADB's Safeguard Policy Statement, 2009

(xxvii) ADB's Access to Information Policy, 2018

(xxviii) ADB's Accountability Mechanism Policy 2012

(xxix) United Nation's Sustainable Development Goals

(xxx) IFC Performance Standards

(xxxi) Equator Principles

(xxxii) IUCN Red List

(xxxiii) The Rio Declaration, 1992

(xxxiv) Kyoto Protocol

(xxxv) Convention on Biological Diversity, 1992

(xxxvi) Occupational Safety and Health Convention,1981

(xxxvii) Ramsar Convention on Wetlands of International Importance Especially as Wildfowl Habitat, 1971

(xxxviii) Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention), 1983

(xxxix) Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 1989

(xl) UN Framework Convention on Climate Change, 1994 (xli) European Cultural Convention, 1954

(xlii) Paris Convention Concerning the Protection of the World Cultural and Natural Heritage, 1972

(xliii) Council of Europe Framework Convention on the Value of Cultural Heritage for Society (Faro convention), 2005

(xliv) Aarhus Convention on Access to Information, Public Participation in Decision- Making, and Access to Justice in Environmental Matters, 1998

(xlv) ILO Social Policy (Basic Aims and Standards) Convention, 1962

(xlvi) European Convention for the Protection of Human Rights and Fundamental Freedoms, 1950.

II. INTRODUCTION

A. Program Objective

15. The program is aligned with the following impact: inclusive economic growth strengthened. The effect of the reform is: a responsive VET network promoting excellence in skills development strengthened. The proposed program reform areas are: (i) quality and relevance of VET in priority economic sectors improved; (ii) access to, and inclusiveness of, the VET system increased; and (iii) institutional framework strengthened through increased private participation in VET. (All policy actions for subprogram 1 have been completed). The program's policy-based and investment components cover all reform areas. The impact of the project will be: labor productivity and competitiveness of the economy enhanced; its outcome will be: VET institutions and program aligned with evolving labor market needs. Proposed reform areas are summarized and discussed in more detail below.

Table 1. Summary Program Impact, Effect of the Reforms and Reform Areas

Country's Overarching Development Objective[a] Inclusive economic growth strengthened.		
Effect of the Reform Responsive VET network promoting excellence in skills development strengthened.		
Reform Area 1 Quality and relevance of VET in priority economic sectors improved	Reform Area 2 Access to, and inclusiveness of, the VET system increased	Reform Area 3 Institutional framework strengthened through increased private participation in VET
• Upgrade at least 2 colleges into Skills Hubs in East and West Georgia in 7 priority economic sectors • Support at least 2 Skills Hubs to introduce income generating activities, strengthen short-term training for vulnerable groups and women, career guidance and distance teaching/learning services and provision of soft skills training (including language skills and entrepreneurship) • 7 priority economic sectors are: electronic engineering, information	• Equip and strengthen at least 20 general education institutions in municipalities with no other VET provision across Georgia to develop and deliver VET, career guidance services and soft skills (including language skills and entrepreneurship) training • Develop and implement short-term VET programs for women and vulnerable groups	• Strengthen the proposed Skills Authority • Establish and/or strengthen SSOs in the seven priority sectors to develop and apply valid labor market intelligence systems and develop and/or revise occupational standards • Finance specialized training targeting internationally recognized programs for at least 500 individuals • Pilot private management of public VET institute model in

and communications technology, services (hospitality and tourism), medical and pharmaceutical production, fashion and design, water engineering, furniture production and carpentry.	• Develop a VET gender policy and guidelines • Conduct social marketing campaigns to improve the image of VET and encourage more female participation in non- traditional skills areas.	at least 2 Skills Hub (or a department or school within).

[a] Government of Georgia. 2014. Socio-Economic Development Strategy of Georgia - 'Georgia 2020'. Tbilisi. SSO
= sector skills organization, VET = vocational education

and training. Source: Asian Development Bank.

B. Environmental Category of the Project

16. The project is classified, as ADB Environmental Category B. According to the ADB Environmental Assessment Guidelines, Category B projects require environmental assessment in the form of IEE.

C. Structure of the Report

17. The Supplementary IEE report's format is as follows:

(i) Executive Summary
(ii) Introduction
(iii) Policy and Legal Framework
(iv) Project Description
(v) Analysis of Alternatives
(vi) Description of the Environment
(vii) Potential environmental impacts & mitigation measures
(viii) Stakeholders consultation and information disclosure
(ix) Environmental Management and Monitoring Plan
(x) Project Grievance Redress Mechanism
(xi) Conclusions and Recommendations
(xii) Annexes

D. Limitations to IEE study and Further Updating

18. Information about the selected sites [10]have been obtained through the project territory. Also, baseline data on air, noise and water have been collected and analyzed, additional baseline studies will be given in SSEMP, which will be prepared prior to any construction activities. The updated IEE study (Supplementary IEE)identifies potential risks, environmental impacts and mitigation

[10] Kharagauli, VET school.

measures based on the available information obtained from site visits and other available data, which are incorporated into the project-specific EMP. Additional details shall be included in the site-specific EMPs, which will be prepared by contractor(s) 10 days prior to starting the civil works.

III. POLICY AND LEGAL FRAMEWORK

A. General

19. This section provides an overview of the policy framework and national legislation that applies to the scope of work to be conducted under the proposed project. The project is expected to comply with all national legislation relating to environment in Georgia, and to obtain all the regulatory clearances required.

B. Statutory Framework

20. Georgian legislation comprises the Constitution of Georgia, environmental laws, international agreements, subordinate legislation, normative acts, presidential orders and governmental decrees, ministerial orders, instructions, and regulations. Along with the national regulations, Georgia is signatory to several international conventions, including those related to environmental protection. The MEPA is responsible for regulating the activities that affect the natural environment. The key environmental laws affecting the project are discussed below.

C. Legal and Administrative Framework Legal Framework

21. A list of Georgia's environmental legislation as it pertains to the proposed project is given in Table 2.

Table 2. List of Environmental Laws and Regulations Relevant to the Project

Year	Law / Regulation	Last revision	Code
1994	Law on Soil Protection	07/12/2017	370.010.000.05.001.000.080
1995	Constitution of Georgia	29/06/2020	010.010.000.01.001.000.116
1996	Law on Subsoil	16/12/2021	380.000.000.05.001.000.140
1996	Law on Environmental Protection	15/10/2019	360.000.000.05.001.000.184
1996	Law on the System of Protected Areas	20/07/2018	360.050.000.05.001.000.127
1997	Law on Wildlife	26/12/2018	410.000.000.05.001.000.186
2023	Low on water resources management	30/06/2023	400000000.05.001.021003
1999	Law on Protection of Atmospheric air	16/06/2023	420.000.000.05.001.000.595
2020	Forest Code of Georgia	29/06/2023	390000000.05.001.019838
1999	Law on Compensation of Damage from Hazardous Substances	07/12/2017	040.160.050.05.001.000.671
2000	Law on Regulation and engineering Protection of the Sea and River Banks	20/07/2018	400.010.010.05.001.000.830
2003	Law on Red List and Red Book of Georgia	22/12/2018	360.060.000.05.001.001.297
2003	Law of Georgia on Conservation of Soil and Restoration-amelioration of Soil	07/12/2017	370.010.000.05.001.001.274
2005	Law on Licenses and Permits	19/02/2020	300.310.000.05.001.001.914
2014	Waste Code	29/06/2023	360160000.05.001.017608
2017	Environmental Assessment Code	22/02/2023	360160000.05.001.018492

Source: Parliament of Georgia.

D. Constitution of Georgia, 1995, last updated 29/06/2020

22. Constitution of Georgia states the basic rights of people to live in a healthy environment and obligation to protect it. According to the Constitution, everyone has the right to obtain complete, objective, and timely information about environmental conditions (Art. 37, Part 3). It assures that the state shall protect environment and foster sustainable development (Art. 37, Part 4). It establishes a legal framework that guarantees public access to information about the condition of the environment (Art. 37 Part 5, Art. 41 Part 1).

E. Environmental Assessment Code (EAC), 2017, last updated 29/06/2023

23. The Code establishes a legal basis for regulating issues related to projects and strategic documents, which implementation may have significant impact on the environment, human life and health. It regulates the procedures related to environmental impact assessment, strategic environmental assessment, public participation in decision-making, trans-boundary environmental impact assessment; defines rights and obligations of the developer, the planning authority, the public and the competent authorities in the course of decision-making envisaged by this Code; describes procedures of issuing Environmental Decision; exemption rules. The law includes two annexes. Annex I list activities subject to EIA, Annex II—lists activities/projects that require screening procedure. Screening is responsibility of MEPA. Under the Environmental Assessment Code (EAC) construction of international and interstate roads; construction and operation of tunnels and/or bridges on the international and interstate roads belongs to activities subject to EIA.

24. According to the document, the main stages of EIA include:

(i) Screening;

(ii) Scoping procedure;

(iii) Preparation of the EIA Report by the developer or the consultant;

(iv) Ensuring public participation;

(v) Examination of the information presented in the EIA Report and any supplementary information provided by the developer to the Ministry as well as assessment of the information received through the public participation and consultation processes;

(vi) Expertise procedure;

(vii) Implementation of transboundary environmental impact assessment procedure (weather appropriate); and

(viii) Issuance of Environmental Decision or the decision on refusal to implement the project by the Minister.

F. Law on Licenses and Permits, 2005

25. Law on Licenses and Permits regulates legally organized activities posing certain threats to human life/health, and addresses specific state/public interests, including usage of resources, regulates activities requiring licenses/permits, determines types of licenses/permits required, and defines the procedures for issuing, revising and cancelling of licenses and permits. The law is generic and refers to the EAC for details of environmental permitting (environmental decision) procedures.

G. Law on Environmental Protection, 1996

26. Law on Environmental Protection regulates the legal relationship between the bodies of the state authority and the physical persons or legal entities (without distinction-legal form) in the field of environmental protection and in the use of nature on all Georgia's territory including its territorial waters, airspace, continental shelf and special economic zone. The Law defines the principles and norms of legal relations, rights and obligations and responsibilities, awareness raising, education and scientific research in the field of environment, key players and principles of environmental management; describes economical mechanisms and levers; ecological insurance; basics of environmental audit; environmental requirements during privatization; justifies needs of environmental standards and limits (air, water, soil, noise, vibration, fields, radiation) and ecological requirements for production, transportation and storage of goods and food products; ecological requirements applicable to waste; states necessity of environmental impact assessment and related issues (strategic environmental protection and transboundary environment assessment) referring to EAC; defines general principles of environmental protection; considers different aspects on protection of ecosystems, protected areas, issues of global and regional management, protection of ozone layer, biodiversity, protection of Black Sea and international cooperation aspects. According

to the law (Article 29) quality standards for environment are defined once in 5 years. The limits are set in provisions on Qualitative limits, approved by the Ministry of Internally Displaces Persons from the Occupied Territories, Labour, Health and Social Affairs (MOIDPLHSH).

27. As stated in the law, to protect the climate against the global changes, the subject of the business activity is obliged to observe the limits to green-house gas emissions as well as to take measures for mitigating this emission. The emission of the green-house gases is regulated based on integrated control of pollution of environment (Article 51). Besides, the subject of the business activity is obliged to reduce or stop production and use of such chemicals, which are likely to have effects on the ozone, layer of the earth and cause depletion of it (Article 52). The law sets requirements related to waste management (prevention, reduction, recovery, and disposal) compliant with sanitary and epidemiological norms and rules, bans dumping of waste into the surface water, requests developers/businesses to develop and enforce emergency response and natural calamities management plans.

H. Law of Georgia on Subsoil, 1996, last updated 16/12/2021

28. Law of Georgia on Subsoil deals with the status, study, and usage of mineral resources. The law describes rights and obligations of the users (Including re-cultivation after expiration of the license term), duration of the licenses (for energy resources – up to 45 years; for metal ores – up to 40 years; up to 30 years for construction materials and other non-ore mineral resources; ground water and gas (except for the natural gas) – up to 25 years); protection of natural resources and safety requirements; termination of license; state supervision and control over the use of mineral resources; general requirements during mining. Regarding the issues related to the licenses for use of the natural resources, the law gives reference to the law on Licenses and Permits, Law on Oil and Gas and related regulations. The law states the need for protection of environment and occupational health and safety (OHS) during operation (mining), including requirements for waste (including wastewater) management. The law bans abstraction of inert material from the riverbed or seacoast protection strip and in those cases when material abstraction affects the riverbed and/or violates stability of hydrotechnical structures (dams, bridges, retention walls, etc.).

29. Removal of inert material is not allowed within the stretch of the river from the dam to the end of the section within which no tributaries providing sufficient volume of solid sediments are available. In such area's abstraction of material from the river terrace (in 50 m. from the riverbed) is prohibited. Abstraction of inert construction material from other sections and reservoirs is allowed. According to the law extraction and treatment of mineral resources from deposits both of natural and technogenic origin (soil disposal areas) are subject to state supervision and control. The license for abstraction is issued by the Ministry of Economy and Sustainable Development (MOESD).

I. The Waste Management Code, 2015

30. The Waste Management Code provides the legal conditions for implementation of measures aiming at prevention of generation of waste and increased re-use, environmentally-sound treatment of waste (including recycling and extraction of secondary raw materials, energy recovery from waste, as well as safe disposal).

31. The following summarizes the key points of the code. Article 7 – General waste management requirements

- Waste, depending on its type, properties, and composition, shall be collected, transported, and treated in a manner not impeding its further recovery.
- Waste shall be collected, transported, and treated in a manner which excludes, to the

maximum extent possible, pollution of the environment and risks for human health.

- In case of waste pollution caused by waste transport activities, the waste transporter shall be responsible for taking clean up measures.
- The producer and holder of waste is obliged to treat their waste on their own or hand, it over for collection, transport and treatment to persons entitled to carry out such operations in accordance with this Law and legislation of Georgia.
- Where waste has been submitted for recovery or disposal, the original producer's and/or holder's responsibility shall remain until recovery or disposal is completed.
- Persons who collect and transport waste shall hand it over for treatment to appropriate facilities, holding the relevant permit or registration.
- The burning of waste outside permitted incinerators shall be

prohibited. Article 14 – Company waste management plan

- Legal and physical persons that produce more than 200 tons of non-hazardous waste or 1000 tons of inert waste or any amount of hazardous waste annually, shall prepare a company waste management plan.

Article 15 – Environmental Manager

- The persons under Article 14 of this Law shall nominate a suitable person as a company environmental manager.

Article 17 – General obligations for hazardous waste management

- The production, collection, and transportation of hazardous waste, as well as its storage and treatment, shall be carried out in conditions providing protection for the environment and human health.
- It shall be prohibited to: discard hazardous waste outside waste collection containers;
- discharge it into the sewerage systems or underground or surface waters, including the sea; burn it outside waste incinerators permitted for that purpose; treat it outside waste treatment facilities permitted to treat such type of waste.

Article 18 – Special obligations for hazardous waste management

- Waste producers that produce more than 2 tons of hazardous waste per year shall create and implement a suitable separation and collection system for such waste;
- designate an environmental manager, pursuant to Article 15 of this Law, responsible to make arrangements for the safe management of solid waste;
- make arrangements for briefing and training for staff handling hazardous waste;
- Until the exact content of waste is unknown, the waste shall be regarded as hazardous;
- Hazardous waste for which no appropriate treatment techniques and/or technologies are available in accordance with the requirements of this Law within the territory of Georgia shall be exported for treatment. Until the export is carried out, the waste shall be safely stored at temporary storage facilities.
- The Ministry may exceptionally once allow for an extended storage period of up to one year if this is justified and does not harm human health or the environment. Hazardous waste may only be collected and transported by a natural or legal person after its registration pursuant to this Law.

Article 29 – Obligations for keeping records and reporting on waste

- Records on waste shall be kept and waste reports shall be submitted to the Ministry by

natural and legal persons: (1) dealing professionally with collection, transport and/or treatment of waste; (2) which produced more than more than 2 tones non- hazardous (excluding municipal waste) waste or any amount of hazardous waste per year.

J. Other Relevant Laws

32. Several other national laws are important in the context of environmental management. The main laws that potentially affect the project are listed below.

(i) Law on Protection of Atmospheric Air (1999). The law regulates protection of atmospheric air from man-caused impact. Pollution of atmospheric air is emission of hazardous substances originating from activities which can have negative impact on human health and environment. Four types of pollution are considered (Part II, Chapter IV, Article II.2): Pollution of environment with hazardous matter, Radiation pollution of atmospheric air. The law distinguished three types of the sources of hazardous emissions: stationary, mobile, and disperse. Pollution with microorganisms and biologically active matter of microbial origin, Noise, vibration, electromagnetic fields, and other physical impact. Maximum permitted limits for concentration of hazardous substances into the atmospheric air are defined for each contaminant and represent maximum concentration of hazardous pollutants, in averaged time span, recurring action of which has not have negative impact on human health and environment. Maximum permitted levels of emission of hazardous matters into the atmospheric air are defined with allowance of prospective of development of the enterprise, physical. Geographical and climatic conditions, dispersion of emitted substances, background concentration of pollutants emitted from other neighboring enterprises, considering inter-location of existing or planned dwellings, sanatoria, and recreation zones. In compliance with the law (Art. 28), to restrict pollution from the stationary sources[11] of hazardous emissions the limits of emissions are to be set. The limit of pollution from the stationary source of emission is permitted quantity (mass) of emitted hazardous matters (Art. 29). Maximum annual emission level means the maximum permitted limit of discharge. This is annual permitted quantity of emission predetermined by technology in conditions of standard permitted capacity of discharge. Annual maximum capacity is defined for each hazardous substance and is calculated so that for each stationary source of emission cumulative emission from all registered sources of discharge does not exceed relevant maximum permitted value. Discharge of hazardous emissions from the stationary sources of emission without approved limits of discharge is forbidden. The standards of emissions (Art. 30) are to be worked out by the enterprise itself. According to Article 38, the enterprise is responsible for conducting self-monitoring which includes measurement of emission, recording/registration and accounting. Emission which has not been recorded in self-monitoring record is considered illegal. Results of the monitoring and information on pollution of the air with hazardous substances is transparent and accessible for the public.

(ii) Forest Code of Georgia (2020). The Code considers environmental, social, and economic functions of forest and interests of local communities. According to the new Code, the forest is divided into four different categories—protected forest, protection forest, resort

[11] Stationary source of pollution of the atmospheric air is stationary device or construction with a special emission unit. Any stationary device or construction which, proceeded from its technological peculiarities, is not fitted with sputtering device is also considered as a stationary source of emission.

and recreational forest and commercial forest, for the purposes to preserve the environment function and biodiversity of forest; to facilitate and enhance soil, water and climate regulation functions; to use rationally the productivity of forests taking into consideration the long-term benefits, including resources, tourism and recreational potential of forests; to facilitate sustainable development of various economic sectors related to forest ecosystem services and to protect forest ecosystems from negative cumulative effects. According to the new Forest Code, the forest may be under state, municipal, or private ownership.

(iii) Law on Water (1997). The Law regulates water use, defines rights and obligations of water users, sets out the types of licenses for the use of water, the rules, and conditions of their issuance, considers conditions of suspension, withdrawal and deprivation of license, regulates water flows. The law states liability of all natural and legal persons to prevent pollution of catchment basins, water reservoirs, snow and ice covers, glaciers, permanent snow cover with industrial, household and other wastes and emissions which may cause deterioration of the underground water quality; prohibits piling of industrial and household wastes near the public water headwork's and in their sanitation zones, bans construction of facilities and implementation of any other activity which may cause water pollution; sets requirements for forest use within water protection zones. The state management of water protection and use is exercised through accounting, monitoring, licensing, control and supervision.

State monitoring of water is implemented by the Legal Entity under Public Law

– the National Environmental Agency under MEPA. By virtue of the law when locating/designing/constructing/commissioning of a new or reconstructed enterprise, or other facility, as well as in introducing of new technological process capable to affect the state of water, the rational water use is to be secured. At the same time, attention is to be paid to the measures ensuring due accounting of water abstracted from and returned to water bodies; protection of water from contamination, pollution- and depletion; avoidance of the unfavorable water impact; restriction of land flooding up to minimum necessary level, protection of land from silting, swamping, or drying up; as well as environmental protection and landscape preservation.

Under the law required is purification, up to the fixed standard, of the wastewater discharged in a water body. To protect the quality of water resources, the law requests creation of sanitary protection zone that consists of three belts, each having a special regime. The procedure fixing the water quality standards, the maximum permissible rates of emission of harmful substances (including microorganisms) into ambience, the water abstraction quotas and the temporary rates (limits) of emission of harmful substances (including microorganisms) into water is defined by the Law of Georgia on the Environmental Protection.

(iv) Law on Wildlife (1997). The law regulates wildlife protection and use including hunting and fishing. The main goal of the law is to ensure protection and restoration of wildlife, its habitats, preservation and sustainability of species diversity and genetic resources, creation of conditions for sustainable development, considering the interests of present and future generation; legal ensuring of wildlife protection (including in-situ and ex-situ conservation, translocation, and reproduction of wildlife) and state-based provision of use of wildlife objects. In addition to this law, Georgian legislation on the wildlife is based on the Constitution of Georgia, Georgia's international agreements and treaties, laws on Environmental Protection and on the System of Protected Areas, law of Georgia on Wildlife and law of Georgia on the "Red List" and "Red Book". It is one of the main goals of the Environmental Protection Law to support the preservation of biodiversity of the country, the preservation of rare,

endemic, and endangered species, the protection of the marine environment, and the maintenance of the ecological balance (Art. 3.1). The Law contains regulations on both wild animals and plants which are threatened by extinction and those which are not. Two main legal acts regulating the issues of species protection in Georgia.

(v) Law on Red List and Red Book (2003). The law gives the legal definitions of Red List and Red Book (relevant recommendations and methodological issues) of endangered species of Georgia. The Red List structure was also legally defined, as well as the relevant procedures for including species in the Red List, procedures for revising, and updating of it. The Law also regulates issues related to planning and financial matters connected with the protection, taking of, rehabilitation and conservation of endangered species. The Red List of Georgia was approved by Order of President of Georgia N. 303 (2006), later

– by the Resolution of the Georgian Government N 190 (20/02/14). The law defines special cases when removal of individuals of the Georgian Red List species from their habitats is allowed. Decisions are made by the Government of Georgia. Protection of endangered/protected species in the boundaries of protected area is regulated by law of Georgia on Protected Areas.

The law was updated in 2014. It now includes some 56 plant and 139 animal species, including 33 mammals, 35 birds, 11 reptiles, 2 amphibians, and 11 fish (including all sturgeon). Of these, 20 plant and 43 animal species are categorized as critically endangered (CR) or endangered[12], and 4 mammals may be extinct. The "Red Book" of critically endangered species includes information on the status, habitat, home range, quantity, reproduction areas and conditions, protection measures and risk factors for species listed in the Red List. In terms of plants, some 275 species of vascular plants are considered endemic to Georgia, of which approximately 60% (152 species) are considered endangered, although there is insufficient information form them all to be included in the Red List.[13]

(vi) Law on Soil Protection (1994). The law provides the policy requirements and principles of the protection and preservation of fertility soil resources against negative impacts. Soil protection is the state problem since correct and rational use of all types of soil, including barren soil, saline soils, swamped soil, alkali soil and aqueous soil are the main reserve of dynamic development of agriculture and of the national economy. The purpose of the present Law is to establish the rights and the duties of landholders, landowners, and the state in the field of soil protect. The law defines soil protection measures and methods and prohibits certain activities, e.g. use of fertile soil for non- agricultural purposes; implementation of non-agricultural activity without topsoil removal and conservation; any activity, which results in deterioration of soil properties, etc. In addition to this law soil protection issues are regulated by order N2- 277

(25/11/2005) of the Minister of Agriculture on approving Recommendations for Complex Measures for Soil Protection from the Erosion.

(vii) Law of on Conservation of Soil and Restoration-Amelioration of Soil Fertility (2003). The law is to ensure conservation and improvement of soil in the territory of Georgia, define the legal principles, measures, limitations and prohibitions to that end; soil

[12] 44 vertebrate species are also included in the IUCN Red List as CR, EN or VU – see later.

[13] https://www.cbd.int/doc/world/ge/ge-nr-05-en.pdf

conservation and fertility restoration improvement measures. It prohibits unregulated grazing, removal of windbreaks, application of non-registered fertilizers or other substances, soil contamination and any activity, which results in deterioration of soil properties and facilitates desertification, swamping, salinization, etc. Businesses that use soil or conduct activities upon soil that have the potential to negatively impact soil conservation are required to follow the Law and related normative documents and regulations, including Order N113 (27/05/2005) of the Minister of Environment and Natural Resources' Protection on affirming regulation on "Removal, Storage, Use and Re-cultivation of the Fertile Soil Layer" and 2) Resolution of the GoG N424 (31/12/2013) on affirming technical regulations on "Removal, Storage, Use and Re-cultivation of the Fertile Soil Layer". These documents consider issues of land resources protection and rational use and issues related to removal, storage, use and re-cultivation of the fertile soil layer during different activates. According to the regulation, restoration of degraded soil fertility must be implemented using re-cultivation (technical and biological) methods.

(viii) Law on System of Protected Areas (1996). The law Forms a legal basis for planning, establishment and maintenance and assignment of categories of protected areas (state reserve, national park, natural monument, managed reserve, protected landscape, and multipurpose use area), defines zoning within the protected areas, describes funding issues for each category. It specifies ownership forms of land and other natural resources in protected areas, allowed and prohibited activities. The planning of the system of protected areas is performed by the MEPA, the legal entity under public law - Agency of Protected Areas operating within the MEPA, and the MOESD. Decisions on the creation, territorial expansion and upgrading of protection categories of protected areas in Georgia is made by the Parliament of Georgia.

(ix) Law on Compensation for Damage Caused by Hazardous Substances (1999). The law includes principles and procedures for compensating the negative impacts caused by discharge of hazardous substances into environment.

33. Laws and regulations related to social aspects and land ownership applicable to the project are presented in Table 3.

Table 3. List of Social and Land Ownership Related Laws Relevant to the Project

Year	Law / Regulation	Last revision	Code
1996	Law on Agricultural Land Ownership	16/06/2017	370.030.000.05.001.000.132
1997	Civil Code of Georgia	23/12/2017	040.000.000.05.001.000.223
1997	Law on Compensation of Land Substitute Costs and Damages due to Allocating Agricultural Land for Non-agricultural Purposes	25/12/2014	370.020.000.05.001.000.244
1999	Law on Rules for Expropriation of Property	06/09/2013	020.060.040.05.001.000.670
	for Public Needs		
2005	Law of Georgia on Spatial Development and Basis for City-building	25/07/2017	330.090.000.05.001.001.845
2007	Law on Cultural Heritage	07/12/2017	450.030.000.05.001.002.815
2007	Law on Public Health	07/12/2017	470.000.000.05.001.002.920
2010	Law on State Property	07/12/2017	040.110.030.05.01.004.174
2010	Labor Code	04/05/2017	270000000.04.001.016012
2015	Law on Development of High-mountain Areas	05/07/2018	010110020.05.001.017881

Source: Parliament of Georgia

34. Brief summaries of the listed laws are given below.

35. Civil Code of Georgia (1997). The code regulates contractual relations, describes the rights and responsibilities of natural and legal persons, defines the penalties in the case of violations of the requirements set out in the document. The Civil Code differentiates between movable and immovable property and provides rules for acquiring title over property, as well as any proprietary or obligatory rights thereto. This piece of legislation must be considered when entering contracts in Georgia.

36. Labor Code of Georgia (2010). The code regulates employment relations, unless such relations are otherwise regulated by international treaties that have been implemented in Georgia. Employers are obliged to comply with requirements and clauses of the document for the purpose of ensuring that the rights of employees are protected.

37. Law on Public Health (2007). The law regulates legal relations for ensuring a safe environment for human health. It indicates quality norms of for air, soil and water pollution and restrictions related to ionized radiation, noise and vibration. The limits must be complied with. Section 7 of the law is dedicated to safety of technological processes.

38. Law on Compensation of Land Substitute Costs and Damages (1997). Due to Allocating Agricultural Land for Non-agricultural Purposes, the law defines compensation amounts, required at the time of allocation, use or disposal of agricultural land parcel for non-agricultural purpose; the payment procedure and the procedure for changing the agricultural land category, including payment of losses to landowners or land users, as a result of restricting their rights or reducing the quality of their land.

39. Law on Agricultural Land Ownership (1996). Objective of the law is to ensure improvement of the structure of agricultural land based on rational use of resources, avoidance of splitting and unsustainable use of the land plots. The law defined the rules for acquisition and selling the land, participation of the state in agricultural land related relations. The law deals with land ownership issues, restrictions of land alienation in case of co- ownership, sets priority of the state in buying out the agricultural land plots.

40. Law on rules for expropriation of property for public needs (1999). The law outlines respective procedures and conditions for expropriation of private property as well as procedures for compensation payment for expropriated property or the transfer of other property with the same market value.

41. Law on State Property (2010). The law regulates relationships on state property management and transfer for use by others, defines special requirements and procedures for transfers. The Ministry of Economy and Sustainable Development is the state authority in charge of the property.

42. Law on Labor Safety (2018). The law defines general requirements and preventive measures related to safety on worksites; avoidance of existing and potential hazards, accidents/incidents, and professional diseases; training, awareness raising, communication and consultations with equal involvement/participation of employees. The law regulates rights, obligations and responsibilities of state institutions, employers, employees, and employees' representatives in providing safe and healthy environment. The law applies to dangerous, hazardous, heavy and works with/in dangerous working conditions. The list of high-risk works is defined by the government in consultations with social partnership.

43. Law on Cultural Heritage (2007). The law sets out procedures for protection of cultural heritage and permitting arrangements for archaeological investigations.

44. Law on Spatial Development and Basis for City-building (2005). The law regulates the

spatial development and the process of city-building, including the development of the accommodations, settlements, and infrastructure regarding the requirements of the cultural heritage and environmental policies. In this field, the law defines the rights and obligations of the state authorities, physical and legal entities, principles of spatial development and city-building, its priorities, goals and tasks, as well as the form and the role of the spatial-territorial planning and planning documents in terms of the development of the territorial development of Georgia.

45. Law on Development of High-mountain Areas (2015). The policy implemented by the State towards high mountainous regions is part of the regional development policy of the country and is aimed at ensuring the equal socio-economic development of the entire territory of Georgia and at solving the social and economic problems of persons living in high mountainous regions. The aim of this Law is to determine the benefits of encouraging the social and economic progress of high mountainous regions as guaranteed by the Constitution of Georgia; such benefits ensure the well- being of persons living in high mountainous regions, raise living standards, promote employment, and improve social and economic conditions. Regardless of their altitudes, the status of high mountainous settlement has been granted to settlements located within the following historic and geographic areas: Khevi, Mtiuleti, Pankisi Gorge, mountainous Adjara, Gudamakari Valley, Pshav- Khevsureti, Tusheti, Upper Svaneti, Kvemo Svaneti (lower Svaneti), Lechkhumi and Racha.

46. Permanent residents of high mountainous settlements shall enjoy tax privileges established by the Tax Code of Georgia in relation to income tax and property tax. Business entities which, in accordance with the legislation of Georgia, have been granted the status of high mountainous settlement enterprise shall be exempt from taxes under the terms and rules defined by the Tax Code of Georgia. The administrative body with power to grant to business entities the status of high mountainous settlement enterprise, and the terms and conditions of granting, terminating, and suspending the status of high mountainous settlement enterprise, shall be determined by the rules for granting, terminating and suspending the status of high mountainous settlement enterprise, which shall be approved by ordinance of the Government of Georgia.

47. The Constitutional Agreement between the State of Georgia and the Apostolic Autocephalous Orthodox Church (2002). The agreement regulates the relationship between the State and the Church. Its provisions (art. 7, 8 and 9) have a major impact on the management of cultural heritage in the country. By this agreement all the religious buildings and related structures on the territory of the country, in use or without function, standing or in ruins, together with their parcels and all the immovable ecclesiastic treasures protected in museums and archives are handed down in the ownership of the Church of Georgia (Art. 7 and 8). The Ministry of Culture and Monument Protection must agree with the Church of Georgia in the process of adopting protection zones, rules and methodologies, planning and approving rehabilitation projects or scientific research of movable and immovable religious monuments. Together with the state, the Church is responsible for maintenance and care of the monuments in its ownership (Art. 7 and 9). The property of the Church is exempt from the state taxes (Art. 5). According to the Concordat the church is the owner of the majority of immovable listed properties in the country, most of which, at the same time, are living heritage sites, with the religious function being restored and enhanced after the fall of Soviet regime. Because of this special circumstance, the specific rules for maintenance and exploitation of these properties need to be elaborated.

K. Administrative Framework

48. Ministry of Environment Protection and Agriculture (MEPA). In December 2017, MEPA had its responsibilities split between the ministries of agriculture and economy, with the latter also taking over the Ministry of Energy. MOEPA is responsible for all environmental protection issues and agriculture in Georgia. The responsibilities of the Ministry as the competent authority are:
(i) to intermit, limit, or stop any activity having or likely to have adverse impact on the environment, (ii) to carry our screening of planned development, (iii) to implement scoping, (iv) to issue environmental decision for project subject to EIA procedure (ref. EAC), (v) to control the

execution of mitigation measures by the developer, and (vi) to organize public meetings and discussion of an estimation of influence on environment and prepares the documentation (the project of the order of the minister) to let out the permission to influence to environment.

49. Ministry of Education and Science (MES). The ministry is a main policy-making body in the field of education, science, culture and sport. The ministry is responsible for further development of education and science directions and promotes harmonization of national programs of relevant state institutions with international education standards. It is also the competence of the Ministry to establish the conditions and rules for the recognition of non-formal vocational education and development of programs for the improvement of its quality. The Ministry ensures collaboration and implementation of the programs for the development of institutional, material- technical, and human resources of the professional education institutions. The Ministry is responsible for the development and management of sectorial policy on cultural heritage.

50. The National Agency for Cultural Heritage Preservation (NACHP). The NACHP is an entity of public law subordinated to the MES. The Agency was established on the basis of the thirteen state Museum Reserves and entrusted to carry out the protection, maintenance, inventory, research, conservation and rehabilitation of cultural heritage and to advice the Ministry on the heritage policy issues. The Agency is responsible for management and monitoring of national monuments and World Heritage Sites in the country and for granting permits for conservation and rehabilitation project for these monuments. The Agency is also responsible for protection the inventory and promotion of movable and immovable cultural heritage objects, scientific research, consulting, and expertise in the field of cultural heritage.

51. Ministry of Finance (MOF). MOF is responsible for the formation of budget policy and ensures compliance of budget processes with international standards; develops and facilitates of the implementation of state investment management methodology; participates in the selection process of investment projects within its competences and in evaluations according to the established methodology.

52. Ministry of Economy and Sustainable Development (MOESD). MOESD is responsible for carrying out the review of technical documentation (including conclusion of independent experts) and issuing Permits on Construction for projects, as well as for supervision over constructing activities and for arranging Acceptance Commission after completion of construction. State supervision of construction and compliance monitoring is provided by the Main Architecture and Construction Inspection, which is operating under the Ministry of Economy and Sustainable Development of Georgia. Following to reorganization of MOEPA and the Ministry of Energy the MOESD took over the functions of the latter, as well as part of the main functions of MOEPA (i.e., licensing activity). The MOESD is a responsible institution for developing and administrating Labour Market Information System (LMIS). The LMIS information providers include: MOESD, Enterprise Georgia, Georgia's Innovation and Technology Agency, National Agency of State Property, National Statistics Office of Georgia, MES, Education Management Information System, NCEQE, MEPA, Agricultural Projects' Management Agency and Ministry of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs (MOIDPLHSA).

53. Ministry of Regional Development and Infrastructure (MRDI). The MRDI is responsible for the development, implementation, and coordination of regional development policy and for monitoring and analysis of its implementation. Within the scope of its competence develops of proposals for the implementation of infrastructural projects for the socio-economic development of municipalities and coordinates regional programs and projects funded by local and foreign sources and evaluates the effectiveness of their implementation; ensures and coordinates implementation of measures to promote development of water supply systems. The ministry is also responsible for

arrangement and management of non-hazardous waste landfills and for the development of state policy on road networks.

54. Ministry of Internally Displaced Persons from the occupied territories, Labor, Health and Social Affairs. MOIDPHLSA together with other ministries, institutions and social partnerships defines the state policy on labor safety; supports awareness raising and training sessions, develops proposals and recommendations related on labor safety programs. MOIDPHLSA is represented in Trilateral Commission of Social Partnership together with the Ministry of Justice (MOJ), MOESD, MRDI and MES. MOIDPLHSA defines the scope, qualification requirements, condition and rules for accreditation of labor safety officers; elaborates incident evidence gathering and keeping procedures as well as reporting rules and terms; together with Social Partnership acts as mediator in collective labor disputes, monitors implementation of occupational health and safety conventions, recommendations and agreements, develops reports on the subject, ensures cooperation with International Labor Organization and other international and governmental institutions, and carries out labor market studies and analysis. Service for the Protection of Labor Safety Regulations under the MOIDPLHSA monitors and implements supervision over compliance with the labor safety rules, investigates incidents and professional deceases cases and registration.

L. Environmental Regulations and Standards

55. Georgia has a large set of specific standards that refer to emission, effluent, and noise standards, as well as standard to handle and dispose specific wastes ranging from sewage to hazardous wastes. The following summarizes these laws and standards along with International Finance Corporation (IFC) and the European Union (EU) standards.

a. Ambient Air Quality Standards

56. Table 4 shows the threshold values of the major air pollutants as defined by the GEO, IFC and EU legislation.

Table 4. Ambient Air Quality Standards

Parameter	Averaging Period	Limit (µg/m^3)			Applicable to LCIP
		Maximum Permissible Concentration (MPC) for Air Quality	IFC Guideline Value	EU Ambient Air Quality Guidelines	
Nitrogen Dioxide (NO_2)	30 minutes	200	-	-	200 µg/m^3
	1 Hour	200 µg /m^3	200	200	200 µg/m^3
	24 Hours	40	-	-	
	1 Year	40 µg /m^3	40	40	
Sulphur Dioxide (SO_2)	10 minutes	-	500	-	
	30 minutes	500	-	-	500
	1 Hour	-350 µg /m^3	-	350	-350 µg /m^3
	24 Hours	125 µg /m^3	20	125	
Carbon Monoxide (CO)	30 minutes	5,000	-	-	5,000

Parameter	Averaging Period	Limit (µg/m3)			Applicable to LCIP
		Maximum Permissible Concentration (MPC) for Air Quality	IFC Guideline Value	EU Ambient Air Quality Guidelines	
	24 Hours	3,000	-	-	
	8 hours	10 mg/m3	-	-	10 mg/m3
Total Suspended Particulates (TSP) / Dust	24 Hours	150	-	-	
	30 minutes	500	-	-	500
PM10	1 year	40 µg /m3	20	40	20
	24 hours	50 µg /m3	50	50	50
PM2.5	1 year	25 µg /m3	10	25	10
	24 hours		25	-	25
Ozone	8-hour daily maximum	120 µg /m3	100	120	

IFC = International Finance Corporation, EU = European Union.

Source: Technical regulation on approval of atmospheric air quality standards (approved by GoG on 27/07/2018, document code 300160070.10.003.020699).

b. Noise Standards

57. Admissible noise standards of the IFC and Georgian national standards for residential areas are similar. The national standards for noise are set according to the Technical regulation – Acoustic noise limits for rooms/premises in residential houses and public establishments (Document #300160070.10.003.020107, Date 15/08/2017).

58. According to IFC, noise impacts should not exceed the levels presented below. or result in a maximum increase in background levels of 3 decibels (dB) at the nearest receptor location off site. This program will comply with both IFC Guidelines and Georgian Standards. Note that Georgian standards refer to the allowable limits indoors, not at the building façade.

59. For baseline monitoring, and construction and operational phase noise assessment, IFC guideline limits will be followed. For workplace noise, IFC guidelines shall be followed.

Table 5 Georgian Standards for Noise Levels[14]

Purpose/use of area and premises	Allowable limits (A-Weighted Decibels (dBA))		
	L_{day}		23:00 – 08:00 L_{night}, Night
	08:00 – 19:00, Day	Evening 19:00-23:00	
Educational facilities and library halls	35	35	35
Medical facilities/chambers of medical institutions	40	40	40
Living quarters and dormitories	35	30	30
Hospital chambers	35	30	30
Hotel/motel rooms	40	35	35
Trading halls and reception facilities	55	55	55
Restaurant, bar, I halls	50	50	50
Theatre/concert halls and sacred premises	30	30	30
Sport halls and pools	55	55	55
Small offices (≤100m^3) – working rooms and premises without office equipment	40	40	40
Small offices (≤100m^3) – working rooms and premises without office equipment	40	40	40
Conference halls /meeting rooms	35	35	35
Areas bordering with houses residential, medical establishments, social service and children facilities (<6 story buildings)	50	45	40
Areas bordering with houses residential, medical establishments, social service, and children facilities (>6 story buildings)	55	50	45
The areas bordering with hotels, trade, service, sport, and public organizations	60	55	50

14 Allowable Limits Indoors, Not at the Building Façade

Note: 1. In case noise generated by indoor or outdoor sources is impulse or tonal, the limit must be 5dBA les than
indicated in the table. 2. Acoustic noise limits given above are set for routine operation conditions of the 'space',
i.e. windows and door are closed (exception – built-in ventilation canals), ventilation, air conditioning, lighting (in case available) are on; functional (baseline) noise (such as music, speech) not considered.

60. Acoustic noise limits given above are set for routine operation conditions of the 'space', i.e. windows and door are closed (exception – built-in ventilation canals), ventilation, air conditioning, lighting (in case available) is on; functional (baseline) noise (such as music, speech) not considered.

Table 6 Applicable Noise Level Guidelines per IFC EHS Guideline

Receptor	One-hour L_{aeq} (dBA)	
	Daytime 07.00-22.00	Night-time 22.00 – 07.00
Residential; institutional; educational	55	45
Industrial; commercial	70	70

Table 7 Applicable Work Environment Noise Limits per IFC EHS Guidelines

Type of Work, workplace	IFC General EHS Guidelines
Heavy Industry (no demand for oral communication)	85 Equivalent level Laeq,8h
Light industry (decreasing demand for oral communication)	50-65 Equivalent level Laeq,8h

c. Vibration Standards

61. The Georgian Standards for vibration are designed for human comfort. Note that no standards for building damage exist.

Table 8 Georgian General Admissible Vibration Values

Average Geometric Frequencies of Octave Zones (Hz)	Allowable Values X0, Y0, Z0			
	Vibro-acceleration		Vibro-speed	
	m/sec^2	dB	$m/sec\ 10^{-4}$	dB
2	4.0	72	3.2	76
4	4.5	73	1.8	71
8	5.6	75	1.1	67
16	11.0	81	1.1	67
31.5	22.0	87	1.1	67
63	45.0	93	1.1	67

Corrected and equivalent corrected values and their levels	4.0	72	1.1	67

Note: It is allowable to exceed vibration normative values during daytime by 5 dB during daytime. In this table of inconstant vibrations, a correction for the allowable level values is 10dB, while the absolute values are multiplied by 0.32. The allowable levels of vibration for hospitals and rest houses must be reduced by 3dB. Note that no standards for building damage exist.

62. The American Association of State Highway and Transportation Officials (AASHTO) (1990) identifies maximum vibration levels for preventing damage to structures. Table 9 summarizes the maximum levels. AASHTO standard will be followed during the construction phase.

Table 9 AASHTO Maximum Vibration Levels for Preventing Damage

Type of Situation	Limiting Velocity (in/sec)
Historic sites or other critical locations	0.1
Residential buildings, plastered walls	0.2-0.3
Residential buildings in good repair with gypsum board walls	0.4-0.5
Engineered structures, without plaster	1.0-1.5

d. Soil Quality

63. In Georgia, soil quality evaluation criteria are determined by instructions on “Level of Chemical Contamination of Soil” (MM 2.1.7. 004-02).

Table 10 Max. Admissible Concentrations of Various Substances and Elements in Soils

Component	Unit	Level
Arsenic	mg/kg	2-10
Copper	mg/kg	3
Mercury	mg/kg	2.1
Nickel	mg/kg	4
Lead	mg/kg	32
Zinc	mg/kg	23
Compound Hydrocarbons	mg/kg	0.1
Phenol (Compound)	mg/kg	-
Cyanide	mg/kg	-
Sulphate	mg/kg	-
Chloride	mg/kg	-
Ammonium Nitrogen	mg/kg	-
Evaporable Organic Compounds		
Benzoyl	mg/kg	0.3
Toluene	mg/kg	0.3
Ethylbenzene	mg/kg	-
Compound Xylene (ortho, meta, para)	mg/kg	0.3
semi-Evaporable Compounds		
Benzopyrene	mg/kg	0.02

Component	Unit	Level
Isopropylen-benzol	mg/kg	0.5
Pesticides		
Atrazine	mg/kg	0.5
Linden	mg/kg	0.1
DDT (and its metabolite)	mg/kg	0.1

e. Groundwater quality standards

64. Georgian legislation does not regulate quality standards for groundwater. Quality of groundwater is regulated by norms set for potable water. Potable water quality criteria are determined by technical regulations on potable water (Government Regulation N 58 from 15 January, 2014). Potable water quality criteria are given below.

Table 11. Potable Water Criteria

Index	Measuring unit	Standard not more than:
Common characteristics		
Hydrogen index	PH	6-9
Permanganate oxidation	mg O2 /L	3,0
Nonorganic substance		
Barium (Ba 2+)	mg/L	0.7
Boron (B, total)	mg/L	0.5
Arsenic (As, total)	mg/L	0.01
Quicksilver (Hg, nonorganic),	mg/L	0.006
Cadmium (Cd, total)	mg/L	0.003
Mangan (Mn, total)	mg/L	0.4
Molybdenum (Mo, total)	mg/L	0.07
Nickel (Ni, total)	mg/L	0.07
Nitrate (short impact by NO^{-3})	mg/L	50
Nitrite (long impact by NO^{-2})	mg/L	0.2
Selenium (Se, total)	mg/L	0.01
Copper (Cu, total)	mg/L	2.0

Index	Measuring unit	Standard not more than:
Lead (Pb, total)	mg/L	0.01
Fluorine (F)	mg/L	0.7
Chromium (Cr6+)	mg/L	0.05
Antimony (Sb)	mg/L	0.02
Cyanide (CN-	mg/L	0.07
Organic substance		
Total content of pesticides	mg/L	0.05

Note: Georgian legislation does not regulate quality standards for groundwater. Quality of groundwater is regulated by norms set for potable water.

f. Surface Water Quality Standards

65. The values of Maximum Admissible Concentrations of the harmful substances in surface water are provided in the Environmental Quality Norms approved by the Order #297N (16.08.2001) of the Ministry of Labor, Health and Social Protection (as amended by the Order No 38/n of the same Ministry of 24 February 2003). The admissible level of pollutants in surface water is given in below. All effluent shall comply with the Georgian National Standards. However, certain parameters are not specified in the national standards; for these, IFC Guidelines are being used.

Table 12 Applicable Standards for Surface Water Quality

Parameter	MPC	Source
pH	6.5-8.5	National
Diluted Oxygen, mg/l	4-6	National
BOD5, mg/l	30	IFC
COD, mg/l	125	IFC
Total Nitrogen, N, mg/l	10	IFC
Total Phosphate, mg/l	2	IFC
Chlorides, mg/l	350	National
Oil Products, mg/l	0.3	National
Zinc (Zn^{2+})	1g/kg	National
Lead (Pb total)	23.0	National
Chrome (Cr^{6+})	32.0	National
Cadmium (Cd, total)	6.0	National
Total Suspended Solids, mg/l	50	IFC

Note: certain parameters are not specified in the national standards for these IFC Guidelines are being used

66. Quality requirements depend on category of water body (ref. Technical regulations of protection of surface water from pollution, approved by decree #425 of the government of Georgia, 31 December 2013). The categories are: (a) household water use; (b) domestic water use; and (c) fisheries. The latter, in its turn, splits in highest, first and second categories.

Table 13 Water Quality Requirements by Water Use Category

	Water use category			
	Household water use	Domestic water use	Fisheries	
			Highest and first	Second
	Increase not higher that listed below is allowed			
Suspended solids	0.25 mg/l	0.75 mg/l	0.25mg/l	0.75 mg/l
	For rivers with natural content of suspended solids 30mg/l, around 5% increase is allowed			
	If wastewater contains suspended particles with deposition rate above 0.2mm/sec discharge in water reservoirs is not allowed. Discharge of effluents containing suspended particles with deposition rate above 0.4mm/sec is prohibited.			
Floating matter	Patches and films of oil, petroleum products, fats must not be detectable			
Colour	Must not be visible in water column		Water must not have unusual colour	
	20 cm	10 cm	-	
Odour, taste	Water must not have odour and taste of higher than 1-unit intensity		Water must not result in unusual odour and taste in fish	
	After chlorination of other treatment	Without treatment	-	
Temperature	After discharge of wastewater, temperature in water reservoir must not exceed by more than 5 percent compared to the natural value		For water bodies, representing a habitat for cold water fish such as Acipenseridae, Coregonidae, maximum allowable temperatures in summer and winter are 20°C and 5°C respectively, while for other water bodies - 28°C (in summer), 8°C (in winter).	
pH	Must be in 6.5 - 8.5 interval			
Water mineralisation	<1000mg/l, Incl. chlorides – 350mg/l; sulphates - 500mg/l	To comply with requirement given in section related to taste (see above)	In accordance with taxation	
Dissolved oxygen	Must not be lower than			
	4 mg/l	4 mg/l	6 mg/l	6 mg/l

	Water use category			
	Household water use	Domestic water use	Fisheries	
			Highest and first	Second
	Increase not higher that listed below is allowed			
Biological oxygen demand	At 20°C must not exceed			
	3 mg/l	6 mg/l	3 mg/l	6 mg/l
Chemical oxygen demand	Must not exceed			
	15 mg/l	30 mg/l	-	-
Chemical substances	Must not exceed maximum permissible limits			
Pathogens	Must be free for pathogens, including viable helminth eggs, tenia oncosperes and viable cysts of pathogen organisms			
Toxicity	-	-	At the point of discharge and control section of the river toxic impact must not be observed.	

g. Sanitary Wastewater

67. Sanitary wastewater from industrial facilities may include effluents from domestic sewage, food service, and laundry facilities serving site employees. Miscellaneous wastewater from laboratories, medical infirmaries, water softening etc. may also be discharged to the sanitary wastewater treatment system. Recommended sanitary wastewater management strategies include:

68. (i) Segregation of wastewater streams to ensure compatibility with selected treatment option (e.g. septic system which can only accept domestic sewage);

69. (ii) Segregation and pre-treatment of oil and grease containing effluents (e.g. use of a grease trap) prior to discharge into sewer systems.

70. If sewage from the industrial facility is to be discharged to surface water, treatment to meet national or local standards for sanitary wastewater discharges or, in their absence, the indicative guideline values applicable to sanitary wastewater discharges shown below.

71. If sewage from the industrial facility is to be discharged to either a septic system, or where land is used as part of the treatment system, treatment to meet applicable national or local standards for sanitary wastewater discharges is required. Sludge from sanitary wastewater treatment systems should be disposed of in compliance with local regulatory requirements. In its absence, disposal has to be consistent with protection of public health and safety, and conservation and long-term sustainability of water and land resources. It should be mentioned also that the most stringent standards will apply during construction.

72. Construction-phase water quality monitoring will be assessed against national standards. Wastewater discharge from construction sites and camps shall be assessed against IFC values (for any treated sanitary sewage discharge).

Table 14. Indicative Values for Treated Sanitary Sewage Discharges

Pollutant	Unit	Standards			Applicable to LCIP
		GEO	WB	EU	

pH	pH	6-9	6-9		6-9
Biochemical oxygen demand (BOD)	mg/l	35	30	25	30
Chemical Oxygen Demand (COD)	mg/l	125	125	125	125
Total Phosphorus	mg/l	2	2	2	2
Total Nitrogen	mg/l	15	10	15	10
Total Suspended Solids	mg/l	60	50	35	35
Coliform bacteria	[1]MPN[b]/100ml		400[a]		400[a]

73. IFC Environmental, Health, and Safety Guidelines for Water and Sanitation Water quality of potable water supply systems include information relevant to the operation and maintenance of:

(i) Potable water treatment and distribution systems, and

(ii) Collection of sewage in centralized systems (such as piped sewer collection networks) or decentralized systems (such as septic tanks subsequently serviced by pump trucks) and treatment of collected sewage at centralized facilities. The IFC guidelines recommend measures to prevent, minimize and control environmental impacts associated with all stages of drinking water supply and sewerage management, including water withdrawal and protection of water quality, drinking water treatment, water distribution, and wastewater collection and treatment.

h. Electromagnetic Fields

71. For electromagnetic fields (EMF) exposure level, IFC guidelines on electric power transmission and distribution and the exposure limits to electric and magnetic fields published by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) will be followed. The limits are provided in the tables below.

Table 15. ICNIRP Exposure Limits for General Public Exposure to Electric and Magnetic Fields

Frequency	Electric Field (V/m)	Magnetic Field (μT)
50 Hz	5000	100
60 Hz	4150	83

Source: ICNIRP (1998): Guidelines for limiting exposure to time-varying electric, magnetic and electromagnetic fields (up to 300 GHz).

Table 16. ICNIRP Exposure Limits for Occupational Exposure to Electric and Magnetic Fields

Frequency	Electric Field (V/m)	Magnetic Field (μT)
50 Hz	10,000	500
60 Hz	8300	415

Source: ICNIRP (1998): Guidelines for limiting exposure to time-varying electric, magnetic and electromagnetic fields (up to 300 GHz).

i. Forest Code of Georgia (2020).

72. The Code considers environmental, social, and economic functions of forest and interests of local communities. According to the new Code, the forest is divided into four different categories— protected forest, protection forest, resort and recreational forest and commercial forest, for the purposes to preserve the environment function and biodiversity of forest; to facilitate and enhance

soil, water and climate regulation functions; to use rationally the productivity of forests taking into consideration the long-term benefits, including resources, tourism and recreational potential of forests; to facilitate sustainable development of various economic sectors related to forest ecosystem services and to protect forest ecosystems from negative cumulative effects. According to the new Forest Code, the forest may be under state, municipal, or private

ownership.

j. Asbestos Management

73. Asbestos management in Georgia is regulated by Decree of Minister of Labor, Health and Social Affairs of Georgia on Adoption of Hygienic Requirements for Working with Different Types of Radiation Sources, Industrial Materials, and Instructions" (14/04/2004), which sets out the rules for dealing with asbestos and asbestos-containing materials (ACM), in particular in packaging, warehousing and transportation. Asbestos management in Georgia is regulated by Decree of Minister of Labor, Health and Social Affairs of Georgia on Adoption of Hygienic Requirements for Working with Different Types of Radiation Sources, Industrial Materials, and Instructions" (14/04/2004) and WMC (waste management code) which sets out the rules for dealing with asbestos and asbestos- containing materials (ACM), in particular in packaging, warehousing and transportation.

74. World Bank Group and IFC Environmental, Health and Safety (EHS) Guidelines (2007) and Performance Standard on Environmental and Social Sustainability (2012) states that: "ACM should be avoided in new constructions, including construction for disaster relief. In reconstruction, demolishing, and removal of damaged infrastructure, asbestos hazards should be identified, and a risk management plan adopted that includes disposal technics and end-of-life sites." In addition to that, it is required that all workers should receive special trainings on all relevant aspects.

75. If ACM is suspected, asbestos verification by Asbestos Management Expert is required. Asbestos Management Plan (AMP) will be part of the SSEMP. When there is no available landfill to accept ACMs or the contractor has no capacity to handle ACM, it will be left in-situ (in place) or stored on-site. PIUs shall include AMP in all contracts if works have potential ACMs.

g. Clearances to be obtained prior to start of construction. PIUs will ensure all necessary regulatory clearances and approvals are obtained prior to commencement of works. PIUs, with support of project consultants and contractors, are responsible for obtaining the clearances/permits and ensuring the conditions/specifications/provisions are incorporated in the subproject design, costs, and implementation. The PIUs shall report to ADB the status of compliance to clearances/permits as part of the regular project progress reporting. Table 18 shows the list of clearances or permissions required for the subprojects. This list is indicative, and the contractor shall ascertain the requirements prior to start of the construction and obtain all necessary clearances/permission prior to start of construction.

Table 17. Clearances and Permissions Required

Construction Activity	Clearance Required	Implementation	Supervision
Land for Project Activity	Allotment and approval for specific land use in pre-construction stage	Implementing Agency	Executing Agency
Tree Cutting[15]	Relevant conclusion of the National Forestry Agency under the MoEPA; Local Municipality;	Implementing Agency/Construction Company	Executing Agency

[15] In accordance with the Organic Law of Self-Government of Georgia (Article 16), local self-government body is responsible for management of local natural resources, including water and forest resources, and land resources owned by the municipality. Thus, the trees to be cut down locate on a land plot registered as municipal property, the permit for tree cutting shall be obtained from local self-government body. However, in case of Red listed species, the inventory of trees needs to be submitted to the MoEPA and tree-cutting permission shall be obtained from the Government of Georgia (in accordance with the Law of Georgia on Red List and Red Data Book of Georgia, Article 24). In accordance with the resolution # 221, when the territory belongs to the Forest Fund, relevant permit shall be obtained National Forestry Agency. In case of state- owned area, the National Agency of State Property shall be applied (based on the Law of Georgia on State Property, Article 291) for obtaining of tree-cutting permit

	National Agency of State Property; Government of Georgia		
Hot mix plants, crushers, batching plants	Relevant conclusion of the MOEPA	Construction Company	Implementing Agency
Generator sets			
Storage, handling, and transport of hazardous materials	Relevant conclusion of the MOEPA	Construction Company	Implementing Agency
Sand mining, quarries and borrow areas	Relevant conclusion of the MOEPA	Construction Company	Implementing Agency
Temporary traffic diversion during construction	Relevant conclusion off the Ministry of Internal Affairs of Georgia (Patrol Police Department)	Implementing Agency/Local Municipality	Implementing Agency/Executing Agency
Establishment of construction camps	Relevant conclusion of the MOEPA[16]	Construction Company	Implementing Agency
Disposal of Construction waste and demolition debris	Relevant conclusion of the local municipality in accordance with requirements of the legislation of Georgia	Construction Company	Implementing Agency
Pipe laying and other construction works	For sewerage pipes laying with a length of 2 km or more with development area of 5 hectares or more Or Laying of pipelines longer than 5 km for the transportation of oil, gas or carbon dioxide It is necessary to prepare screening reports for submission to MoEPA.	Implementing Agency	Executing Agency
Construction of new tube wells or any new extraction of ground water	Relevant conclusion of the MOEPA	Recipient Municipality	National Environmental Agency

[16] In accordance with the Georgian legislation, if activities under the project are not subject to EIA, there is no need of obtaining conclusion on establishment of construction camp from MoEPA.

M. ADB Requirements

76. ADB safeguard policies require that:

(i) adverse impacts of projects on the environment and affected people be avoided;

(ii) where possible—minimize, mitigate, and/or compensate for adverse project impacts on the environment and affected people when avoidance is not possible; and

(iii) help borrowers/clients to strengthen their safeguard systems and develop the capacity to manage environmental and social risks.

77. The policies apply to all ADB-financed projects, including private sector operations, and to all project components. The implementation processes as follows:

(i) screening and scoping of the main issues start as soon as potential projects for ADB financing are identified and continue throughout the project cycle;

(ii) impacts are assessed, safeguard plans summarizing mitigation measures, monitoring program, and institutional arrangements are prepared, and arrangements are made to integrate safeguards into project design and implementation;

(iii) affected people are consulted during project preparation and implementation and information is disclosed in a form, manner, and language accessible to them; and

(iv) safeguard plans are disclosed to the general public and the information is updated at various stages in the project cycle.

78. ADB's safeguard policies require that both ADB's and developing member countries' safeguard requirements are complied with.

79. Applicable standards for air emissions for general application, ambient air condition at property boundary for general purpose, limits for process wastewater, domestic sewage and contaminated storm water discharges to surface water and ambient noise levels are given above in above shown tables and are based on the standards described in the World Bank Group (IFC) EHS Guidelines.

a. ADB's Safeguard Policy Statement, 2009

80. The ADB's Safeguard Policy Statement (2009) requires that environmental considerations be incorporated into ADB funded projects to ensure that the project will have minimal environmental impacts and be environmentally sound. Occupational health & safety of the local population should also be addressed as well as the project workers as stated in ADB's Safeguard Policy Statement (2009). A GRM to receive application and facilitate resolution of affected peoples' concerns, complaints, and grievances about the project's environmental performance is also established.

81. All loans and investments are subject to categorization to determine environmental assessment requirements. Categorization is to be undertaken using REA checklists, consisting of questions relating to (i) the sensitivity and vulnerability of environmental resources in project area, and (ii) the potential for the project to cause significant adverse environmental impacts. Projects are classified into one of the following environmental categories:

(i) Category A: A proposed project is classified as category A if it is likely to have significant adverse environmental impacts that are irreversible, diverse or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works. An environmental impact assessment (EIA) is required.

(ii) Category B: A proposed project is classified as category B if its potential adverse environmental impacts are less adverse than those of category A projects. These impacts are site-specific, few if any of them are irreversible, and in most cases

mitigation measures can be designed more readily than for category A projects. An IEE is required.

(iii) Category C: A proposed project is classified as category C if it is likely to have minimal or no adverse environmental impacts. No environmental assessment is required although environmental implications need to be reviewed.

(iv) Category FI: A proposed project is classified as category FI if it involves investment of ADB funds to or through a financial intermediary.

b. ADB's Access to Information Policy 2018

82. ADB's new Access to Information Policy, reflects the ADB's ongoing commitment to transparency, accountability, and participation by stakeholders. The policy contains principles and exceptions to information sharing with external stakeholders, led by a new overarching principle of "clear, timely, and appropriate disclosure."

c. ADB's Accountability Mechanism Policy 2012

83. The objectives of the Accountability Mechanism are providing an independent and effective forum for people adversely affected by ADB-assisted projects to voice their concerns and seek solutions to their problems, and to request compliance review of the alleged noncompliance by ADB with its operational policies and procedures that may have caused, or is likely to cause, them direct and material harm. The Accountability Mechanism is a "last resort" mechanism.

N. IFC Performance Standards

84. IFC applies the Performance Standards to manage social and environmental risks and impacts and to enhance development opportunities in its private sector financing in its member countries eligible for financing. The Performance Standards are also applied to the projects in emerging markets. Together, the eight Performance Standards as bulleted below, establish standards that the proponent is to meet throughout the project:

(i) Performance Standard 1: Social and Environmental Assessment and Management System;

(ii) Performance Standard 2: Labor and Working Conditions;

(iii) Performance Standard 3: Pollution Prevention and Abatement;

(iv) Performance Standard 4: Community Health, Safety and Security;

(v) Performance Standard 5: Land Acquisition and Involuntary Resettlement;

(vi) Performance Standard 6: Biodiversity Conservation and Sustainable Natural Resource;

(vii) Performance Standard 7: Indigenous Peoples; and

(viii) Performance Standard 8: Cultural Heritage objectives have been set in the IFC performance standards to achieve sustainable development.

85. The objectives of Performance Standards are given below:

(i) To identify and assess social and environment impacts, both adverse and beneficial, in the project's area of influence;

(ii) To avoid, or where avoidance is not possible, minimize, mitigate, or compensate for adverse impacts on workers, affected communities and the environment; and

(iii) To promote improved social and environment performance of companies

through the effective use of management systems.

O. Equator Principles

86. The Equator Principles are a set of guidelines, promoted by the IFC that address the environmental and social issues associated with major development projects worldwide. They provide a common baseline and framework for the implementation of internal environmental and social procedures and standards for project financing activities across all industries. These are:

(i) Principle 1: Review and Categorization (of projects)

(ii) Principle 2: Social and Environmental Assessment

(iii) Principle 3: Applicable Social and Environmental Standards

(iv) Principle 4: Action Plan and Management System

(v) Principle 5: Consultation and Disclosure

(vi) Principle 6: Grievance Mechanism

(vii) Principle 7: Independent Review

(viii) Principle 8: Covenants

(ix) Principle 9: Independent Monitoring and Reporting; and

(x) Principle 10: Equator Principles Financial Institutions (EPFI) Reporting.

P. International Conventions and Agreements

87. There are several important international environmental treaties that have been signed by Georgia and may have relevance to the project. The major protocols and ratification dates by Georgia are given in below Table 16.

Table 18 International Agreements and Treaties

Date	Title	Status i	Date
Natural environment			
1961	International Convention for The Protection of New Varieties of Plants	Entry into force	2008
1971	Ramsar Convention on Wetlands of International Importance Especially as Wildfowl Habitat	Entry into force	1997
1973	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	Entry into force	1996
1991	Agreement on The Conservation of Populations of European Bats	Entry into force	2002
1995	Agreement on The Conservation of African-Eurasian Migratory Water birds	Entry into force	2001
1997	International Plant Protection Convention (1997 Revised Text)	Entry into force	2007
1983	Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) (CMS)	Entry into force	2000
1992	Rio Convention on Biological Diversity	Entry into force	1994
2000	Cartagena Protocol on Biosafety to the Convention on Biological Diversity	Entry into force	2009
2000	European Landscape Convention	Entry into force	2011

2008	Convention on the Conservation of European Wildlife and Natural Habitats (Bern)	Entry into force	2010
Environmental pollution, waste			
1997	Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste	Entry into force	2009

1998	Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade	Entry int o force	2007
1989	Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal	Entry into force	1995
2001	Stockholm Convention on Persistent Organic Pollutants	Entry into force	2007
Climate			
1994	UN Framework Convention on Climate Change (UNFCCC)	Entry into force	1994
1985	Vienna Convention for the Protection of the Ozone Layer	Entry into force	1996
1987	Montreal Protocol on Substances that Deplete the Ozone Layer, (and its London, Copenhagen, Montreal and Beijing Amendments 2000 and 2011)	Entry into force	1996
1997	Kyoto Protocol to UNFCCC	Entry into force	2005
1999	Geneva Convention on Long-Range Transboundary Air Pollution	Entry into force	1999
Cultural heritage			
1954	European Cultural Convention	Entry into force	1997
1972	Paris Convention Concerning the Protection of the World Cultural and Natural Heritage	Entry into force	1992
1982	European Convention on the Protection of the Archaeological Heritage	Entry into force	2000
1985	Convention for the Protection of the Architectural Heritage of Europe	Entry into force	2000
2005	Council of Europe Framework Convention on the Value of Cultural Heritage for Society (Faro	Entry into force	2011
Public participation and information accessibility			
1998	Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters	Ratified	2000
Labor issues			
1930	Forced Labor Convention	Entry into force	1993

1936	Holidays with Pay Convention	Entry into force	1993
1949	Freedom of Association and Protection of the Right to Organize Convention	Entry into force	1999
1948	Right to Organize and Collective Bargaining Convention	Entry into force	1993
1950	European Convention for the Protection of Human Rights and Fundamental Freedoms	Entry into force	1999
1951	Equal Remuneration Convention	Entry into force	1993
1957	Abolition of Forced Labor Convention	Entry into force	1996
1958	Discrimination (Employment and Occupation) Convention	Entry into force	1993
1962	ILO Social Policy (Basic Aims and Standards) Convention	Entry into force	1997
1964	Employment Policy Convention (Geneva)	Entry into force	1993
1973	Geneva Convention concerning Minimum Age for Admission to Employment	Entry into force	1996
1975	Human Resources Development Convention	Entry into force	1993

1978	Labor Relations (Public Service) Convention	Entry into force	2003
1997	Employment Service Convention	Entry into force	2002
1997	Private Employment Agencies Convention	Entry into force	2002
1999	Worst Forms of Child Labor Convention	Entry into force	2002

I. Comparison of ADB and National Requirements

88. The environmental assessment of the project will need to satisfy the requirement of both the GoG and ADB. A harmonized safeguard framework is developed for conducting EIA study of the project. The framework is given below in Table 19.

Table 19 Comparison of ADB and GoG Legislation Requirements

ADB SPS Requirement	ADB SPS Policy Principle	Government of Georgia Regulation	Gap	Measures to Address Gap
Commensurate environmental screening of impacts and risks	1. Use a screening process for each proposed project, as early as possible, to determine the appropriate extent and type of environmental assessment so that appropriate studies are undertaken commensurate with the significance of potential impacts and risks.	Project screening is done at early stage of the project. Environmental Assessment Code provides list of I and II category activities. For category II project need of EIA is defined based on the scoping procedure by MoEPA.	EIA notification is applicable only to the projects listed in EIA act, and components of water supply and sewerage projects are exempted for EIA act.	Implement ADB SPS requirements and tools on screening and categorization, identification of risks and mitigation measures Requirements of the National Environmental Standards are compared with international standards and adapt the more stringent requirements.
Asses potential impacts and risks to physical, biological, socio-economic and physical cultural resources of the project affected area	2. Conduct an environmental assessment for each proposed project to identify potential direct, indirect, cumulative, and induced impacts and risks to physical, biological, socioeconomic (including impacts on livelihood through environmental media, health and safety, vulnerable groups, and gender issues), and physical cultural resources in the context of the project's area of influence. Assess potential transboundary and global impacts, including climate	According to GOG requirements there are the same requirements for assessing potential impacts and risks to physical, biological, socio-economic and physical cultural resources of the project affected area.	There is no gap between ADB and GoG legislation.	Subproject selection criteria and environmental assessment process and categorization be implemented with alignment with the SPS.

	change.			

ADB SPS Requirement	ADB SPS Policy Principle	Government of Georgia Regulation	Gap	Measures to Address Gap
	Use strategic environmental assessment where appropriate.			
Examine alternatives for project's location, design, technology and potential environmental impacts	3. Examine alternatives to the project's location, design, technology, and components and their potential environmental and social impacts and document the rationale for selecting the particular alternative proposed. Also consider the no project alternative.	Alternative assessments are to be carried out for the project location and design and among them zero alternative/no project alternative.	There is no gap between ADB and GoG legislation.	N/A

Preparation of Environmental Management Plan	4. Avoid, and where avoidance is not possible, minimize, mitigate, and/or offset adverse impacts and enhance positive impacts by means of environmental planning and management. Prepare an environmental management plan (EMP) that includes the proposed mitigation measures, environmental monitoring and reporting requirements, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators. Key considerations for EMP preparation include mitigation of potential adverse impacts to the level of no significant harm to third parties, and the polluter pays principle.	EIA report is required for Annex 1 listed projects. For Annex 2 project need of EIA is decided based on the screening procedure. The content of the EIA report is structured so to cover requirements indicated in the Environmental Assessment Code. The EMP is a part of the EIA document.	There is no gap between ADB and GoG requirements.	In line with the general guidance, conduct the preparation of the environmental management plan using ADB tools (e.g. REA checklist). The level of detail and complexity of the EMP and the priority of the identified measures and actions will be commensurate with the project's impact and risks.
Carrying out Public Consultations and concerns	5. Carry out meaningful consultation with affected people and facilitate their informed participation. Ensure women's participation in consultation. Involve stakeholders, including affected people and concerned nongovernment organizations, early in the project	Publication of information in national and regional mass-media. Arrange two public meetings – one at the scoping stage, another not later that at 55th date from submission of the draft EIA report	According to GoG requirements conducting of public consultations with stakeholders are not	Adapt the ADB requirements on meaningful consultation and documentation carried out with affected people and other concerned stakeholders including civil

ADB SPS Requirement	ADB SPS Policy Principle	Government of Georgia Regulation	Gap	Measures to Address Gap
	preparation process and ensure that their views and concerns are made known to and understood by decision makers and taken into account. Continue consultations with stakeholders throughout project implementation as necessary to address issues related to environmental assessment.	to MoEPA. All stakeholders are invited for the meetings. One two one meetings and consultations with stakeholders during EIA process. Consultation not later than 60 days from the date of publication.	required throughout project implementation.	society and facilitate their informed participation.
Grievance redress mechanism	Establish a grievance redress mechanism to receive and facilitate resolution of the affected people's concerns and grievances regarding the project's environmental performance.	Implementing Agency to facilitate resolution of affected people's concerns.	No specific government regulation on addressing grievances.	Component of Environment Assessment report on Grievance Redress Mechanism should be addressed in accordance with ADB requirement.
Disclose a draft and final IEE report	6. Disclose a draft environmental assessment (including the EMP) in a timely manner, before project appraisal, in an accessible place and in a form and language(s) understandable to affected people and other stakeholders. Disclose the final environmental assessment, and its updates if any, to affected people and other stakeholders. Draft EIA will be published in ADB website for 120 days before Project approval by the Board.	The scoping document is available for public review for 45 days before public consultations. The EIA Report is available for public review for 50-55 days before public consultations.	According to GoG requirements MoEPA is responsible to send electronic version of EIA report to local municipalities for disclosure in GEO language only.	Conduct public disclosure in accordance to ADB requirements such as posting the safeguard documents on its website as well as disclose relevant information in accessible manner in local communities.

Implementation of monitoring effectiveness	7. Implement the EMP and monitor its effectiveness. Document monitoring results, including the development and	Implementation of monitoring plan is the responsibility of Construction Contractor and IA.	According to GoG legislative base there is no requirement to prepare and submit to	ADB's monitoring and reporting requirements shall be implemented.

ADB SPS Requirement	ADB SPS Policy Principle	Government of Georgia Regulation	Gap	Measures to Address Gap
	implementation of corrective actions, and disclose monitoring reports.		IA monitoring reports and also there is no requirement to disclose the mentioned reports.	
Protection of critical habitats and protected flora and fauna	8. Do not implement project activities in areas of critical habitats, unless (i) there are no measurable adverse impacts on the critical habitat that could impair its ability to function, (ii) there is no reduction in the population of any recognized endangered or critically endangered species, and (iii) any lesser impacts are mitigated. If a project is located within a legally protected area, implement additional programs to promote and enhance the conservation aims of the protected area. In an area of natural habitats, there must be no significant conversion or degradation, unless (i) alternatives are not available, (ii) the overall benefits from the project substantially outweigh the environmental costs, and (iii) any conversion or degradation is appropriately mitigated. Use a precautionary approach to the use,			Adapt the SPS requirements for natural, modified and critical habitat

	development, and management of renewable natural resources.			
Application of pollution prevention and control technologies	9. Apply pollution prevention and control technologies and practices consistent with international good practices as reflected in internationally recognized standards such as the World Bank Group's Environmental, Health and Safety Guidelines. Adopt cleaner production processes and good energy	According to GoG legislative base there are the same requirements for application of pollution prevention and control technologies	There is no gap between ADB and GoG requirements.	ADB requires the adaptation of the more stringent requirements between the international standard and government regulations.

ADB SPS Requirement	ADB SPS Policy Principle	Government of Georgia Regulation	Gap	Measures to Address Gap
	efficiency practices. Avoid pollution, or, when avoidance is not possible, minimize or control the intensity or load of pollutant emissions and discharges, including direct and indirect greenhouse gases emissions, waste generation, and release of hazardous materials from their production, transportation, handling, and storage. Avoid the use of hazardous materials subject to international bans or phaseouts. Purchase, use, and manage pesticides based on integrated pest management approaches and reduce reliance on synthetic chemical pesticides.			
	10. Provide workers with safe and healthy working conditions and prevent accidents, injuries, and disease. Establish preventive and emergency preparedness and response measures to avoid, and where avoidance is not possible, to minimize, adverse impacts and risks to the health and safety of local communities.			ADB requires the consideration of site-specific hazards such as the presence of asbestos materials.

Conserve physical cultural resources and avoid destroying or damaging them	11. Conserve physical cultural resources and avoid destroying or damaging them by using field-based surveys that employ qualified and experienced experts during environmental assessment. Provide for the use of “chance find” procedures that include a pre-approved management and conservation approach for materials that	According to GoG legislative base during EIA preparation stage it is required to prepare archaeological survey report and submit to the National Agency for Cultural Heritage Preservation of Georgia for obtaining permission.	There is no gap between ADB and GoG requirements.	ADB SPS environmental safeguard policy principles require conservation of physical cultural resources and avoid destroying or damaging them by using field-based surveys employing qualified and

ADB SPS Requirement	ADB SPS Policy Principle	Government of Georgia Regulation	Gap	Measures to Address Gap
	may be discovered during project implementation.			experienced experts during environmental assessment.

ADB = Asian Development Bank, EIA = environmental impact assessment, EMP =environmental management plan, GoG = Government of Georgia, IEE = initial environmental examination, MEPA = Ministry of Environmental Protection and Agriculture, NGO = non-government organization, SPS = Safeguard Policy Statement.

Source: Technical Assistance-9790 GEO.

IV. PROJECT DESCRIPTION

A. Project Overview

89. The Modern Skills for Better Jobs Sector Development Program will help the VET system to produce skilled workers, thereby supporting economic growth and job creation in priority economic sectors. Based on the socio-economic criteria, for VET schools, have been selected Kharagauli public school N2, .

90. VET institutes are selected based on several criteria:

(i) Location—adjacent to growth needs set out in the Regional Development Program (2018-2021);

(ii) Capacity of VET institutes and partners to deliver programs;

(iii) Planned GoG economic interventions and MES priorities;

(iv) Assessment of infrastructure, staff capacity and equipment—suitability for upgrading; and

(v) Potential for outreach to ethnic minority populations.

91. Selected VET schools will offer different study programs. These were selected based on several factors: (i) address critical skills gaps, (ii) forward looking qualifications, skills that are demanded in the Georgian labor market by technologically advanced and export-oriented companies, (iii) support for waged employment or self-employment, and (iv) skills that are increasingly demanded in the global market. The selection process included consultations with sector representatives, study of several classifications of occupations and analysis of international experience and national qualifications system.

Table 20. Proposed Programs for VET schools

N	School	Region	VET directions
1.	Kharagauli Public School #2, Tetritskaro Building	Imereti	Cook Culinary art
			Woodworker/cabinet maker/CNC Machine Operator (includes furniture maker and carpentry)

Source: Technical Assistance-9790 GEO.

92. All programs offered by VET schools will employ CBTA approach to ensure that graduates have the practical skills and competencies that allow them to swiftly integrate into the workforce. Some of the qualifications offered by VET school will be internationally recognized to provide opportunities for graduates to work within and outside Georgia. Programs will include increased focus on work-based training, and enhanced linkages with private sector firms. Based on physical infrastructure and equipment assessments of the proposed VET school, the project will upgrade workshops and classrooms, and undertake general renovations of facilities

where required. The purpose is to ensure an upgraded physical feel to the entire institute.

93. The selection process was informed by consultations with sector representatives, study of several prominent systems of classifications of occupations such as the International Standard Classification of Occupations; Standard Occupational Classification; European Skills, Competences, Qualifications and Occupations; analysis of international experience; and NQF. Consultations were held with Enterprise Georgia, Georgia's Innovation and Technology Agency, Georgian Chamber of Commerce and Industry, Georgia Building Authority, European Business Association Georgia, American Chamber of Commerce in Georgia, Hauling Free Industrial Zone, Sustainable Tourism Development in the Central Asia Regional Economic Cooperation Program Region as well as flagship private companies. In each sector, the profile of qualifications was identified, and priorities were assigned to those with the highest growth potential.

94. The project will also fund other important directions for the VET sector development, including (i) income-generation activities by VET providers, (ii) development of soft skills and language competence, (iii) development and pilot career advisory services in general secondary education and skills hub, (iv) implementation of short-term VET programs for women and vulnerable group, (v) development of a VET gender policy and guidelines (vi) promoting image of VET, (vii) establishment of SSOs in priority economic sectors, (viii) provision of high- quality specialized training in priority sectors, and (ix) private management of public VET institutes.

B. Scope of Work

95. Modern Skills for Better Jobs Sector Development Program has three main areas of implementation i.e.,

(i) Quality and relevance of VET in priority economic sectors improved. This reform area includes: upgrade at least 2 colleges into skills hubs in East and West Georgia in 7 priority economic sectors; support the 2 skills hubs to introduce IGAs, strengthen short-term training for vulnerable groups and women, career guidance and distance teaching/learning services; and provision of soft skills training (including language skills and entrepreneurship).

(ii) Access to, and inclusiveness of, the VET system increased. This reform area includes: equip and strengthen 20 general education institutions in municipalities with no other VET provision across Georgia to develop and deliver VET, career guidance services and soft skills (including language skills and entrepreneurship) training; develop and implement short-term VET programs for women and vulnerable groups; develop a VET gender policy and guidelines; conduct social marketing campaigns to improve the image of VET, and encourage more female participation in non-traditional skills areas.

(iii) VET institutional framework strengthened through increased private participation in VET. This reform area includes the following activities: strengthen the proposed Skills Authority; establish and support SSOs in the seven priority sectors to develop and apply valid labor market intelligence systems and develop and revise occupational standards; finance specialized training targeting internationally recognized programs for at least 500

individuals; pilot private management of public VET institute model in at least 1 skills hub (or a department or school within).

C. Implementation Arrangements

96. The implementation arrangements are summarized in Table 21. Procurement financed under the project loan will follow the ADB Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time). Value for money will be achieved by reducing risk and improving the quality of procurement and its performance. Through competitive selection, local suppliers may offer cost-effective and innovative solutions. The civil works tender will be packaged to attract regional bidders to the sites of construction, thereby reducing the need for costly mobilization of equipment to the sites. Goods tenders will be marketed to local and international suppliers and will be packaged to attain economies of scale.

Table 21. Implementation Arrangements

Aspects	Arrangements		
Implementation period[a]	Programmatic approach (policy-based lending): Subprogram 1: March 2019–30 September 2020 Subprogram 2: October 2020–June 2022	Project loan: December 2020–	
Estimated completion	30 September 2020 (SP1) 30 June 2022 (SP2)	31 December 2026	
Estimated loan closing date	31 March 2021 (SP1) 31 December 2022 (SP2)	30 June 2027	
Management			
(i) Oversight body	Program steering committee chaired by the deputy minister, MES Members: MES, MOF, Ministry of Economy and Sustainable Development, representatives of industry and professional associations		
(ii) Executing agency	Policy-based loan: MOF	Project loan: MES	
(iii) Key implementors	Policy-based loan: MOF and MES	Project loan: MES	
(iv) Implementation	MES will establish a project implementation unit		
Procurement	Open competitive bidding (nationally advertised): works	23 contracts (est.)	$6.0 million
	Open competitive bidding (nationally advertised): goods	30 contracts (est.)	$11.16 million
	RFQ: goods	3 contracts	$0.12
	RFQ (non-consulting services) – high-quality specialized training	Multiple contracts	$1.0 million

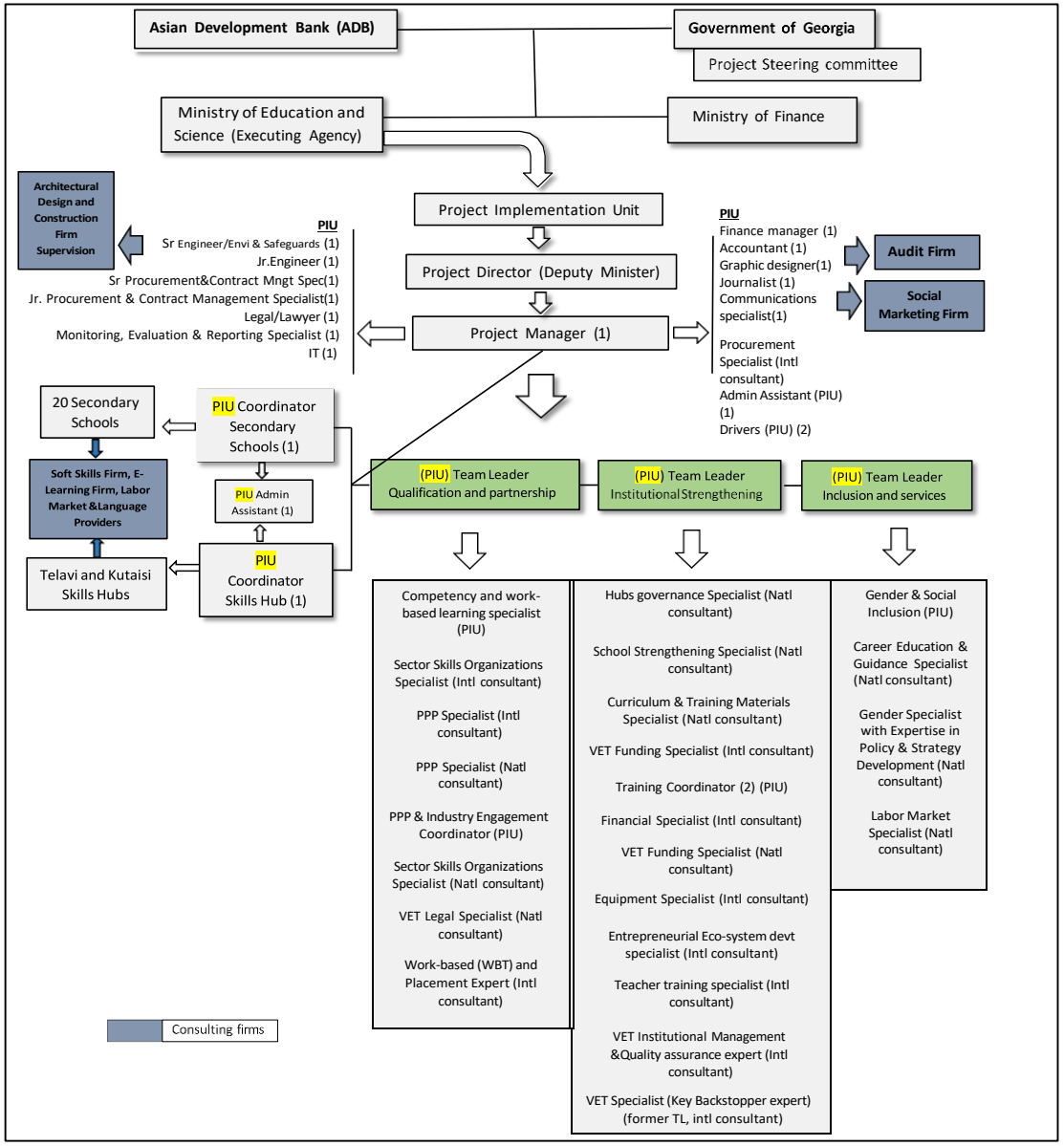
Consulting services	- QCBS (90:10): architectural design and construction supervision firm - CQS: language training (2 firms), soft skills (2 firms), e-learning (1 firm), social marketing (1 firm), labor market (1 firm) - LCS: Audit firm (1)	145-person months (key experts)	$2.52 million
	ICS: PIU staff (nationally advertised)	1,060 person-months	$2.32
Aspects	Arrangements		
	ICS: nationally and internationally advertised	243 person-months	$2.89 million
	Consulting recruitment readiness: the architectural design and construction supervision firm will be advertised, and requests for proposal will be issued prior to ADB Board of Directors approval.		

Retroactive financing and advance contracting	Advance contracting for recruitment of key PIU staff and the architectural design and construction supervision firm; and for procurement of PIU equipment, furniture, and vehicles. The government has not requested retroactive financing.
Disbursement	The loan proceeds will be disbursed following ADB's Loan Disbursement Handbook (2017, as amended from time to time) and detailed arrangements agreed between the government and ADB.

ADB = Asian Development Bank; CQS = consultant's qualifications selection; ICS = individual consultant selection; LCS = least-cost selection; MES = Ministry of Education and Science; MOF = Ministry of Finance; PIU = project implementation unit; QCBS = quality- and cost-based selection; RFQ = request for quotation.

[a] The front-loading of resources in ADB's PBL is based on the government timeline for sector reforms. Source: Technical Assistance-9790 GEO.

Figure 1 Program Organization Structure



D. Program Benefits

97. The Modern Skills for Better Jobs Sector Development Program will help the VET system to produce skilled workers, thereby supporting economic growth and job creation in priority economic sectors. The program is consistent with the directions in government strategies, including the VET Development Strategy 2013-2020 as well as the Georgia VET law passed in 2018. The program will finance the establishment of VET skills schools in different regions. VET school will offer high quality competency-based programs in seven selected priority economic sectors. VET school will receive a range of assistance under the program, including upgraded facilities, updated equipment, training for teachers and management and capacity building. These investments are expected to lead to increased enrollments and graduation rates for long (1.5 to 3 years) and short (less than 1 year) VET courses in skills hub better employment rates for graduates of these courses. The program will also revive the seven existing sector skills councils, which will promote private sector engagement. Secondary school VET programs will prioritize increasing female participation in non- traditional areas and programs targeted at disadvantaged groups and underserved areas. The program will also finance activities that support improved management of and greater private sector collaborations for VET institutes in Georgia. Improved quality and relevance are expected to lead to a wage premium for VET graduates of schools. The policy actions taken in line with the proposed policy matrix will support these project reform areas to be more effective.

E. Kharagauli VET school Project Physical Activities

98. Kharagauli VET school project physical activities are mainly related (i) to the construction phase and civil works—during the construction of the new workshops; and (ii) to the operational phase, when students and staff will utilize new facilities and equipment. During construction phase the project is expected to have mainly site-specific impacts. The potential environmental impact will be mainly related to noise, dust and waste generated by construction activities and to temporary traffic and utilities relocations, and various health and safety issues, including removal, handing and disposal of old asbestos materials in some areas. During operational phase staff and students will use facilities, workshops, and equipment. This will include operating different machinery, using energy sources, working with potentially hazardous materials in laboratories and other activities.

99. Access Roads. The selected sites are easily accessible, and, the roads are in a normal condition. The project sites have car entrances from one or several sides from main roads. Public roads will be used for transportation of materials and waste generated during the construction. Contractors are obliged to ensure transportation in compliance with relevant regulations and standards, and to obtain necessary transportation right-of-way permits, as needed.

100. Construction Camp and Storage Areas. The contractor will establish camp site within the boundaries of the selected site. Location of camp will be selected by different criteria. In case of construction, camps will be located on an adequate area with available place for machinery and storage, considering appropriate distance from the buildings located in, and the houses situated around the yard, to minimize the cumulative environmental effect. Locations should be selected in line with the construction standards and established technical parameters and should be agreed with administration. If storing construction materials temporarily outside the perimeter of the site is necessary, priority will be given to state-owned land and the location shall be agreed with the local authority and MEPA. Camp shall be provided with water, sanitary and sewerage facilities. If toilets are not available in the yard, temporary placement of bio toilets will be preferable. Besides, each camp must be equipped with health and safety, and first aid kits, the specifics of certain selected sites makes reptile venom antidotes necessary. Contractors will reinstate any damage at their own expenses.

101. Temporary storage areas will be necessary during implementation of different activities, especially for storing equipment, sand, gravel, and other materials. Contractors will select and agree the area prior to the commencement of the construction. The contractor is responsible to obtain

relevant permits, if needed, and reinstate any damage at their own expenses.

102. Quarries and Borrow Pits - The exploitation of borrow pits and quarries will be conducted by licensed companies and licensed sites. The exact locations of quarry and borrow sites to be used for the Project will be determined by the Contractor and specified within the SEMP. The Project will not implement any exploration activities from illegal sources. Scope of works within the framework of the project does not require launching a new quarry. During construction, the contractor company will use existing licensed quarries, which are in large enough quantities in the project municipalities.

103. Constriction Process: In the process of construction phase the following activities will be done:

- ✓ Designation of Environment, Health and Safety (EHS) staff responsible for preparing the SSEMP, compliance with safeguard requirements, implementation of the SSEMP and other contractual provisions related to EHS, addressing site-level complaints/grievances from communities, implementation of any corrective action, coordination with the Project Implementation Unit (PIU) and corresponding information to PIU and the Construction Supervisory Consultant (CSC);
- ✓ The CC is obliged to conduct baseline studies in following directions: noise, vibration and emission measurements before staring of construction works, and to conduct similar studies once a quarter during the course of construction works.
- ✓ Prior civil-works commencement, preparation and submission to PIU of the required plans: pre- construction information, Site Specific Environment Management Plan (SSEMP), site, specific health and safety plan, traffic management plan, noise and vibration management plan, waste management plan, camp site management plan, inventory of the trees to cut down (if required), etc. No works are allowed until approval of SSEMP;
- ✓ Obtaining of all required permits, licenses and approvals: Approval of Waste management plan by the MEPA; Agreement on construction waste disposal on the nearest landfill; Agreement on hazardous waste disposal; Trees inventory report and permit for tree cut issued by local authority or by the MEPA in case of Red listed species (if required), etc.;
- ✓ Notification of local population on civil works commencement and arrangement of information banner regarding project and indicate contact persons; dissemination of information regarding duration of upcoming works;
- ✓ Preparatory works: mobilization of the temporal infrastructure, transport and construction appliances and equipment and mechanisms needed for construction. Cleaning off the vegetation cover and accomplishing the earth works and removal of topsoil;
- ✓ Establishing a well functioned Grievance Redress Mechanism and Addressing any grievances in a timely manner as per the GRM;
- ✓ Distribution of information on design and work progress, to households of subproject areas;
- ✓ Mitigate personnel safety risks;
- ✓ Conduct instrumental measurement and submit monthly reports to Employer/Engineer during construction;
- ✓ Establishing and maintaining site records of: (i) weekly site inspections using checklists based on the SSEMP; (ii) environmental accidents/incidents including resolution activities; (iii) environmental monitoring data including instrumental environmental monitoring if needed; (iv) non-compliance notifications issued by the CSC; (v) Corrective action plans issued to the CSC in response to non-compliance notices; (vi) Community relations activities including maintaining complaints register; (vii) Monitoring reports; (viii) Monthly reporting of SSEMP compliance and

community liaison activities (see below); and (ix) Ad-hoc reporting to the Employer's Engineer of environmental incidents/spillages including actions taken to resolve issues of Site-Specific Environmental Management Plan (SSEMP); (x) Plan and schedule of the works to accomplish;
(xi) List of machines and equipment needed for construction; (xii) Records related to the occurring environmental problems; (xiii) Records about waste management issues; (xiv) Written marking of areas of waste disposal and waste transportation instructions issued by the local authority; (xv) Records about the supplies of necessary materials and their consumption; (xvi) Complaints log books; (xvii) Incident registration logs; (xviii) Reports about the correction actions; (xix) Logs of equipment control and technical maintenance; and (xx) Reports about the personnel training.

- ✓ Implementing site clean-up measures after civil works finalization and reinstatement to pre-works condition or better
- ✓ Developing post-construction Audit Report.

104. Construction equipment: Construction activities involves the use of heavy machinery, bulldozers, excavators, graders needed for land clearance and other earthworks, vehicles and equipment to transport construction materials, workers, remove debris from the work area. This list provided in the Table 20 is indicative, and the contractor shall ascertain the required equipment prior to start of the construction.

Table 22 Key Equipment for Kharagauli VET school

No.	Equipment Type and Characteristics	Minimum Number
1	Truck mixer and dumper	3
2	Formwork vibrator	5
3	Mini dumper	6
4	Grader,	2
5	Backhoe loader	3

F. ANALYSIS OF ALTERNATIVES

a. Overview

105. This chapter outlines the analysis of alternatives which were considered for selection secondary schools for this project. A team of experts was engaged by ADB, and also, Educational and Scientific Infrastructure Development Agency (ESIDA) from the GoG side who visited more than 10 VET institutes and 68 general education institutes. The proposed VET schools are one in West Georgia and are spread across the region.

b. No project Option

106. Development of VET sector is one of the important priorities of the GoG. The non-implementation of the project will be a serious risk for the development of the sector and there will be no positive outcomes. The no project option shall not be considered.

c. Site and Design Alternatives

107. VET schools were selected based on following criteria: (i) location—adjacent to growth nodes set out in different GoG strategies and state programs; (ii) alignment of programs with priority economic sectors; (iii) GoG priorities; and (iv) scope for upgrading infrastructure and equipment.

108. Selection of alternative site, instead of chosen ones, represents the risk of lower project performance with respect to the agreed objectives and relevant selected criteria. The team worked on several different alternatives when selecting the design, however the option selected based on the given criteria are the most effective from financial, engineering, and environmental and social aspects point of view.

G. DESCRIPTION OF THE ENVIRONMENT

a. General

109. The chapter describes the geographical and environmental features of the selected area at the national level and provides information on the areas where the project selected sites are located. The program covers several regions of Georgia. The projects' selected sites are located in urban areas, mainly in administrative centers or towns of the regions.

b. Administrative Division of the Regions and Location of Selected Sites

110. Imereti Region is located in the western part of Georgia and consists of eleven municipalities. Administrative center is the city of Kutaisi. Project replaced site is located in the town of Kharagauli.

H. Physical Environment

a. Topography and Geology

111. Georgia is located at the junction of Europe and Asia, in Caucasus Region, in the belt of Alpine folds in Eurasia. The country is surrounded by the Greater Caucasus Range to the north and the Lesser Caucasus Mountains to the south, which are connected by Surami and Imereti ranges. Most of the country's territory is built of Mesozoic and Cenozoic formations. Older Cambrian and Paleozoic formations are less represented. Georgia has vertical zonation. The general topographical and geological features are provided below.

(i) Imereti Region has a very favorable geographical location with clearly defined geographical boundaries. It is bordered by Racha Ridge from the North, Meskheti Ridge from the South, Likhi Ridge from the East and the River Tskhenistskali from the West. A large part of Imereti territory includes mountainous systems and their branches, uplands and plateaus, plains and deep-cut valleys. Imereti is located in the eastern part of Western Georgia. It is bordered to the east by the Likhi mountain range, to the west by the Tshnisskali river , to the north by the Caucasus mountain range and to the south by the Fersati, or Meskheti, mountains. The region is bordered by Racha - Lechkhumi and Kvemo Svaneti regions from the north , Shida Kartli from the east , Samtskhe-Javakheti from the south , and Guria and Samegrelo - Zebo Svaneti from the west . Well-defined natural boundaries give the region a physical-geographic uniqueness. All landscape zones can be found in the territory of Imereti - from humid subtropics to alpine meadows. The region includes the municipalities of Kutaisi , Baghdati , Van , Zestafon , Terjoli , Samtredia , Sachkheri , Tkibuli , Tskaltubo , Chiaturi , Kharagauli and Khoni . The administrative center of the region is Kutaisi . Imereti is divided into two parts: upper and lower Imereti. Imereti is connected to other parts of Georgia through the following passes

: Racha - Nakerala (1235m) and Shkmer; Kartli - Rikoti (999 m) and Surami (947 m); Meskheti - Zekari (2178 m). This area is rich in inland waters. The main transit rivers are Rion and Tshnistskal. The following rivers pass through the territory of Imereti: Dzirula, Chkhrimela, Kvirila, Ricotula and others. The Imereti plain is the eastern part of the Kolkheti plain and it is located in the subtropical climate region of the sea. Here he knows mild, warm winters and hot summers. The average annual air temperature is 11-15 ℃ . Long winters and cool summers are typical for medium and high mountain zone.

b. Water Resources and climatology

112. Imereti Climate Summary - Located at an elevation of 186.92 meters (613.25 feet) above sea level, Imereti has a Humid subtropical, no dry season climate (Classification: Cfa). The city's yearly temperature is 12.05ºC (53.69ºF) and it is -0.06% lower than Georgia's averages. Imereti typically receives about 74.04 millimeters (2.91 inches) of precipitation and has 135.09 rainy days (37.01% of the time) annually.

Figure 2 monthly average temperature of Imereti region

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Nov	Oct	Dec	Year
Record high °C (°F)	12.0 (53.6)	15.0 (59.0)	20.0 (68.0)	24.0 (75.2)	31.0 (87.8)	34.0 (93.2)	37.0 (98.6)	36.0 (96.8)	34.0 (93.2)	29.0 (84.2)	24.0 (75.2)	16.0 (60.8)	37.0 (98.6)
Average high °C (°F)	2.98 (37.36)	4.61 (40.3)	7.87 (46.17)	13.81 (56.86)	19.67 (67.41)	24.7 (76.46)	26.97 (80.55)	27.71 (81.88)	22.86 (73.15)	16.66 (61.99)	10.14 (50.25)	5.4 (41.72)	15.28 (59.5)
Daily mean °C (°F)	0.82 (33.48)	1.96 (35.53)	5.02 (41.04)	10.44 (50.79)	16.37 (61.47)	21.2 (70.16)	23.29 (73.92)	23.51 (74.32)	18.82 (65.88)	13.05 (55.49)	7.12 (44.82)	3.0 (37.4)	12.05 (53.69)
Average low °C (°F)	-2.13 (28.17)	-1.77 (28.81)	0.72 (33.3)	4.51 (40.12)	9.52 (49.14)	13.51 (56.32)	15.79 (60.42)	15.82 (60.48)	12.48 (54.46)	8.11 (46.6)	3.23 (37.81)	-0.04 (31.93)	6.65 (43.97)
Record low °C (°F)	-14.0 (6.8)	-16.0 (3.2)	-13.0 (8.6)	-7.0 (19.4)	1.0 (33.8)	6.0 (42.8)	6.0 (42.8)	8.0 (46.4)	4.0 (39.2)	0.0 (0)	-10.0 (14.0)	-12.0 (10.4)	-16.0 (3.2)
Average precipitation mm (inches)	83.87 (3.3)	94.85 (3.73)	113.85 (4.48)	77.24 (3.04)	85.91 (3.38)	67.21 (2.65)	53.85 (2.12)	40.44 (1.59)	51.05 (2.01)	66.49 (2.62)	75.99 (2.99)	77.71 (3.06)	74.04 (2.91)
Average precipitation days (≥ 1.0 mm)	14.91	11.36	16.82	13.73	13.82	12.09	7.73	7.73	8.09	8.45	9.91	10.45	11.26
Average relative humidity (%)	75.56	75.35	76.03	69.68	67.98	65.74	66.34	61.36	64.95	67.62	66.92	70.73	69.02
Mean monthly sunshine hours	7.73	8.98	9.51	10.32	13.13	13.83	13.72	11.29	10.92	10.1	7.68	7.21	10.37

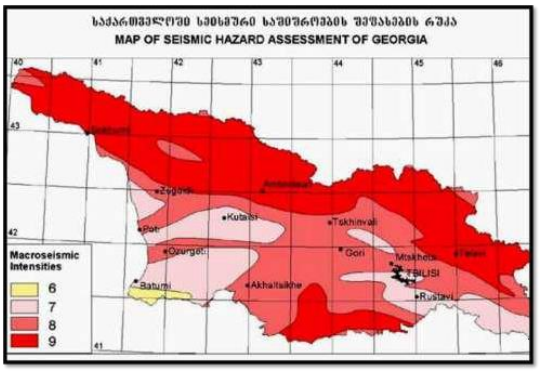
113. The territory of the municipality belongs to the zone of low and medium mountain forest landscapes of Kolkheti , the location of mountains - Khvamli and Askhi from the south and west determines a comfortable microclimate different from the rest of Western Georgia . In the low area , at an altitude of 800 meters above sea level , the average annual air temperature is +11.4 0 , the average January temperature is -0 0 , and the average July temperature is +22 0 . The annual amount of precipitation is 900-1000 mm.

c. Natural Disasters

114. Georgia belongs to the complex region with a diverse spectrum of natural processes. Large percentage of landslides and ravines comes to agricultural land and urban areas. A significant part of the surrounding areas of the reservoirs is deformed and damaged by various natural processes. The frequency of snow avalanches is also high. Extensive development of erosion processes is also quite challenging, which itself is caused by high energetic potential of the region, sustainability of fertile rocks, landscape-climatic diversity and intensive agricultural activities. The territory of Georgia, as an integral part of Caucasian seismic region, belongs to the seismic-active belt of the Mediterranean- Himalayas and represents the northern border zone of the Azia-Iran Mountain Range. It is among the most difficult geodynamic regions in terms of expected earthquakes, caused by the interactions of Arabian and Eurasian tiles. Javakheti volcanic highlands are characterized by high earthquake activities. Near the project area no natural disasters area was detected.

115. The map below shows potential seismic hazards by regions.

Figure 3 Seismic hazards assessment by regions



d. Biodiversity and protection areas

116. Georgia is part of the Caucasus Region, which is one of the most biologically rich regions of the world. It's one of the World Wildlife Fund's (WWF) 200 global eco regions, and considered among 36 "biodiversity hotspots" of the world (Caucasus and Iran-Anatolian Hotspots), identified by Conservation International as being the richest and most threatened reservoirs of the planet and wild animals. Main threats to biodiversity in Georgia are habitat loss, overexploitation, invasive species, and pollution.

117. Vegetation on the project sites is mainly woody plants and shrubs, coniferous, deciduous, evergreen, fruity and flowering species, as well as ornamental plants. Among different useful features, vegetation has important cognitive significance for students. Since most of the institutes have large yards, cutting down plants should not be necessary. The vegetation cover must be considered when selecting the areas for construction and, in case of need of cutting, all necessary appropriate procedures should be carried out. From the existing caves of Imereti Protected Areas only Satapliya Reserve and Managed Reserve are explored botanically

118. Satapliya Reserve is located in the damp subtropical zone. 98 % of the territory is covered with young Colchis type subtropical forest. These areas are dominated by beech forest – with boxwood understory and hornbeam forest – with Oriental hornbeam understory. From Coniferous trees there are yew (TaxusBaccata). There are 67 woody species recorded in the reserve area, among them 30 species are trees and 37 – bushes. From the represented species 59 are deciduous and 8 – evergreen.

119. Almost half of the woody plants are relicts. Among them are Caucasian hornbeam, Georgian oak, Eastern beech, chestnut and others.

120. From the elements of Colchis forest 8 species are spread in the Reserve:Quercushartwissiana, Imeretian buckthorns, common rhododendron, ruscus, Btcher's Broom, Colchis capers, high cranberries and Colchis boxwood. From Poltava flora elements here can be found: boxwood, Colchis ivy, rhododendron and others. There are 482 species of herbaceous plants.

121. There are 12 species of mammals, 5 reptiles, 4 amphibians and 30 species of birds in Satapliya Reserve. From large mammals here can be found jackal, badger, marten, Caucasian squirrel, European rabbit and fox, rarely wolf and deer.

122. A beautiful view of Colchis forest is filled with various species of birds. The Reserve is the domain of swallows, Caucasian finches, chiffchaff, blackbirds and jays. There areas are often visited by hoes, quail and woodcock.

123. In Satapiya territory there are grass eater and prey dinosaur tacks are preserved and spread in different geological epochs. These tracks are collected in a quite small patch, this means that this place was the chosen spot by dinosaurs. Dinosaurs found here are divided into separate groups by scientists and are

referred to Satapliyasauarus: Sataphliazaurus dzotsenidze, Sataphliazaurus tchabukiani; Sataphliazaurus gabunia and others.

124. Imereti caves are habitats for many bats. Among them one species is rare and endangered. Here can be found: older colony of Lesser Hors.

e. Forests

125. Forests are especially valuable natural resources in Georgia, which cover more than 40% of the country's territory, having great importance at national, regional, and global levels. Forest in Georgia conserves the biological diversity and ensures delivery of vital direct and indirect resources and benefits to the population. Georgian forests provide shelter to many animal species, assisting them in maintaining genetic diversity. Around 98% of forests has natural origin. The composition, structure, growth, and other characteristic determine extremely reach biodiversity, up to 400 tree and shrub species grow in the forests. The large number of endemic tree species points to the high diversity of dendroflora. Among the endemic species, 61 species are endemic to Georgia and 43 are endemic to Caucasus.

126. Selected sites are located in urban area, therefore it's not directly adjacent to the Pas.

f. Cultural Heritage

127. Georgia has a rich cultural heritage, with an abundance of archeological sites, natural monuments, PAs, mineral water, balneology, seaside and mountain ski resorts. The country has archeological, architectural, engineering monuments and complexes, historic towns and settlements, human made cultural landscape, national treasures.

128. Near the project area, no cultural heritage are allocated.

g. Social and Economic Characteristic

129. GDP grew by 5.1% in 2019, but COVID-19 is expected to cause GDP growth to fall by 5.0% in 2020—the second largest decrease in Central and West Asia Department countries. A strong economic recovery is expected in 2021, with GDP projected to grow by 5.0%. While the business environment in Georgia has improved over time, some barriers to private sector competitiveness remain, including a skills mismatch in the labor market. There was a big improvement in Georgia's business environment due to government reforms, with the country's ranking on the World Bank's Doing Business Index jumping from jumped from 24th to 7th during 2014–2019. Much of the improvement in the country's business environment is attributed to its adoption of a private sector-led development model, including major economic management and governance reforms.

130. The country faces several social and labor market challenges. Although the overall unemployment rate declined from 17.2% in 2012 to 11.6% in 2019, the unemployment rate for youth was substantially higher at 30.4%. Furthermore, the proportion of youth who are NEETs was also high—26.0% for 15–24-year-olds and 30.6% for 15–29-year-olds in 2019. Although the proportion of the population in employment in Georgia is high, a large part of the workforce is concentrated in low-productivity sectors such as agriculture. [17]There has been substantial progress in poverty reduction, with the poverty rate falling from 34% in 2004 to 19.5% in 2019. Although poverty has declined, inequality remains a significant issue. The Gini coefficient in Georgia measured 36.4% in 2018— one of the highest among former Soviet countries.[18] There are substantial differences in economic development across regions of the country and between urban areas and rural and remote areas.

[17]R. Li et al. 2019. OECD Reviews of Evaluation and Assessment in Education: Georgia. Organization for Economic Cooperation and Development. Paris.

[18] A Gini coefficient measures the degree of inequality of income or wealth. A value of zero indicates no inequality, while a value of 100 indicates complete inequality.

Inequities extend to educational access and outcomes, with students in rural areas having less access to quality schooling and lower scores on international assessments compared to students in Tbilisi and other urban areas. Inequities are also prevalent for women, ethnic minorities, and persons with special educational needs. According to the World Economic Forum Global Gender Gap Index 2020, Georgia ranked 74th out of 153 jurisdictions on the overall index, 29th on the educational attainment sub index and 61st on the economic participation and opportunities sub index. There is a substantial gender segregation in program choices and in labor market participation, with females concentrated in low paid sectors.

h. Agriculture

131. Agriculture is one of the most important sectors of the Georgian economy, delivering 9% of GDP which is main occupation for more than a half of the country's population. There are regions where more than 70% of the workforce is employed in the agriculture sector. The most popular crops are corn, wheat and barley. The fruit and nuts are growing mainly in Shida Kartli, Kakheti and Samegreli-Zemo Svaneti. In terms of cattle breeding and dairy cow breeding, most important regions are Samegrelo-Zemo Svaneti, Imereti, Kvemo Kartli. Dairy sector features development barriers caused by low sector productivity and quality of milk and insufficient food safety standards. Georgia is one of the oldest wine producer countries. Due to the combination of terrain, elevation, soil, drain and sunshine, there are optimal conditions for viniculture. Kakheti is a lead producer region of grapes in Georgia.

I. Rural Infrastructure

a. Electricity and Natural gas

132. Almost all households are connected to electric grid in Georgia. The only region is Kakheti, where electricity coverage is below 100%. Based on the 2016 data, only 66.9 % of households have access to the gas supply network. Gas distribution infrastructure has been expanding during the last 5 years and the percentage of households connected to gas has been increased. Tbilisi is the most advantaged in terms of households' direct connection to gas pipelines, which is followed by Kvemo Kartli and Kakheti.

b. Irrigation System

133. The melioration of lands and construction and rehabilitation of the irrigation and draining systems are important for ensuring highly affective agriculture industry. During last decades, a major part of the infrastructure was destroyed and the GoG has launched the programs for its rehabilitation.

c. Road Infrastructure

134. Most of the domestic public roads in Georgia are in good condition. However, some areas require rehabilitation. Part of the roads linking villages and leading to agricultural lands and to cultural heritage sites are in poor condition and need reconstruction and rehabilitation.

d. Water Supply

135. Domestic water supply infrastructure and sanitation systems require rehabilitation or reconstruction. Outside the capital, where almost all households enjoy drinking water, the percentage of households with water supply pipe installed in the dwelling varies between 34.2 % in Kakheti and
43.7 % in Kvemo Kartli. Underdeveloped water supply infrastructure is found in all regions except Tbilisi. Access to wastewater treatment system is quite poor outside urban areas[19]. Household

[19] Ministry of Agriculture of Georgia. 2017. *Rural Development Strategy of Georgia 2017-2020.* Tbilisi

distribution by main sources of drinking water is provided in the table below.

Table 23 Household Distribution by Main Sources of Drinking Water

2015	Kakheti	Tbilisi	Kvemo Kartli	Samegrelo	Imereti	Other regions[14]	Georgia
Water supply system inside the homes	32.8	98.6	41.2	31.9	39.8	45.6	**55.6**
Water tap in the yard or the district	46.4	1.1	55.5	18.4	24.3	17.9	**21.1**
Well in the yard or the district	7.3	0.3	3.2	44.1	25.9	21.7	**15.8**
Natural water spring in the yard or the district	13.5	0.0	0.1	5.6	10.0	14.8	**7.5**
Other	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**

J. Education and Gender Equality

136. Inequities are still observed in the field of educational access and outcomes, with students in rural areas having less access to quality schooling and lower scores on international assessments compared to students in Tbilisi and other urban areas. Inequities are also prevalent for women, ethnic minorities, and persons with special educational needs.

137. According to the World Economic Forum Global Gender Gap Index 2020, Georgia ranked 74th out of 153 jurisdictions on the overall index[20], 29th on the educational attainment sub index and 61st on the economic participation and opportunities sub index. There is substantial gender segregation in program choices and in labor market participation, with females concentrated in low paid sectors[21]. A much higher share of men is found in stereotypically male professions such as engineering, construction, energy, transport and communications, and gas and water supply. The majority of women are employed in jobs with a caring or service aspect. Women account for around 75% of employees in the healthcare and social sectors, 60% of those working in the hospitality sector, and 84% of schoolteachers. Less than 10% of women work in construction, while 23% are employed in transport and communications.[22] Although women's participation in the sector is close to that of men—48% of VET enrolments are women, program selection displays strong gender segregation.[23]

K. Baseline Environmental Monitoring

138. Baseline environmental monitoring has been conducted 2020-2022. Baseline information on the ambient air and noise level were collected by the Consulting Company "Gergili".

a. Noise

139. Baseline data on noise has been collected in, Kharagauli project site using 1-hour exposure by using the SD-9300 with SL-417 produced by REED instruments.

140. The results of the noise measurement are provided in the tables below.

Table 24. Results of Noise Level Measurement

#	Date	Name of the Site	City/Village	Region	Max.	Min.	Ave.

20 World Economic Forum. 2020. *Global Gender Gap Report 2020.* Geneva.
21 National Statistics Office of Georgia. 2020. *Distribution of Population by Economic Status and Gender.* Tbilisi.
22 Asian Development Bank. 2018. *Georgia Country Gender Assessment*. Manila.
23 Education Management and Information System. 2020. *Key Statistics in VET.* Tbilisi.

1.							
2.	12.09.2022	Kharagauli #2 Public School	Kharagauli	imereti	72.7	57.2	64.9
3.							

Source: Consulting Company “Gergili”

141. The IFC’s EHS Guidelines on noise management provides noise level data for day and nighttime, which are applicable for the traffic noise, but does not offer details for construction noise and vibration. Because no vibration impact is anticipated from the traffic, there are no specific guidelines. The national standards for noise are set according to the Technical Regulation – Acoustic noise limits for rooms/premises in residential houses and public establishments (Document #300160070.10.003.020107, Date 15/08/2017). Admissible noise standards according to the IFC and Georgian national regulation for residential areas are provided in the table 28. The Project will comply with both - IFC Guidelines and Georgian national Standards.

Table 25 Georgian Standards for Noise Levels[24]

Purpose/use of area and premises	Allowable limits (A-Weighted Decibels (dBA))		
	L_{day}		23:00 – 08:00 L_{night}, Night
	08:00 – 19:00, Day	Evening 19:00-23:00	
Educational facilities and library halls	35	35	35
Medical facilities/chambers of medical institutions	40	40	40
Living quarters and dormitories	35	30	30
Hospital chambers	35	30	30
Hotel/motel rooms	40	35	35
Trading halls and reception facilities	55	55	55
Restaurant, bar, I halls	50	50	50
Theatre/concert halls and sacred premises	30	30	30
Sport halls and pools	55	55	55
Small offices (≤100m^3) – working rooms and premises without office equipment	40	40	40

24 Allowable Limits Indoors, Not at the Building Façade

Purpose/use of area and premises	Allowable limits (A-Weighted Decibels (dBA))		
	L_{day}		23:00 – 08:00 L_{night}, Night
	08:00 – 19:00, Day	Evening 19:00-23:00	
Small offices (≤100m^3) – working rooms and premises without office equipment	40	40	40
Conference halls /meeting rooms	35	35	35
Areas bordering with houses residential, medical establishments, social service and children facilities (<6 story buildings)	50	45	40
Areas bordering with houses residential, medical establishments, social service, and children facilities (>6 story buildings)	55	50	45
The areas bordering with hotels, trade, service, sport, and public organizations	60	55	50

Note: 1. In case noise generated by indoor or outdoor sources is impulse or tonal, the limit must be 5dBA les than indicated in the table. 2. Acoustic noise limits given above are set for routine operation conditions of the 'space', i.e. windows and door are closed (exception – built-in ventilation canals), ventilation, air conditioning, lighting (in case available) are on; functional (baseline) noise (such as music, speech) not considered.

142. As no standardized criteria have been developed for assessing construction noise impact, criteria must be developed on a project-specific basis unless local ordinances apply, which are not very useful in evaluating construction noise. They usually relate to nuisance and hours of allowed activity and sometimes specify limits in terms of maximum levels, but they are not so practical for assessing the impact of the construction process. Project construction noise criteria should take into account the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use.

143. As a recommended noise limits for the construction activities in the project sites, IFC's EHS Guidelines will be used. The table below shows the noise limits.

Table 26 IFC Noise Level Guidelines

Receptor	One-hour Laeq (dBA)	
	Daytime 07.00-22.00	Night-time 22.00 – 07.00
Residential;institutional	55	45
Industrial; commercial	70	70

Source: IFC.2007. General EHS guidelines. Environmental/Noise Management. Washington, DC.

144. IFC EHS guidelines advise that where existing ambient noise levels already exceed thresholds, the Project should not result in an increase of more than 3dB over existing ambient noise at the nearest receptor location off-site.

145. During the assessment process, noise was mainly caused by transport movement or other

measures causing noise, e.g. loud music close to the site etc. Selected site, noise level during construction and operational site will be depended on the equipment used and type of activities planned in selected HUB and its schedule. There will two main sources of noise during the construction: noise resulting from building construction works and noise from additional activities, such as transportation of materials to the site. The dominant source of noise in construction equipment is the engine, usually a diesel, without sufficient muffling. Noise levels from the main construction equipment and operations are presented in the table below.

Table 27 Construction Equipment Noise Emission Levels

Equipment	Typical noise level (dBA) approximately 15 m from source
Air compressor	81
Backhoe	80
Compactor	82
Concrete mixer	85
Derrick crane	88
Bulldozer	85
Pneumatic tool	85
Truck	88

Source: Consulting Company “Gergili”

146. The Construction may include usage of some specific machinery (backhoe, bulldozer, trucks, compactor, etc.). Noise and vibrations will be inevitable from different activities e.g digging basement, soil compaction, in some cases breaking of the old structures by hydraulic hammer etc.

147. The equipment (e.g., wood and metal processing), which can be installed inside newly constructed buildings has to be selected according to maximum permissible limits (MPL) not to exceed MPL outside buildings during educational hours.

148. According the report provided by the contractors, it is not anticipated that the impact will be significant, as frequent exceedances of acceptable noise levels resulting from construction activities are anticipated for the short period of time and will be conducted mainly during the daytime. The anticipated impact is considered as medium level. However, as the project is implemented in the vicinity of educational institutions and includes the measure of equipping workshops with special machineries, detailed measures are planned for the mitigation of noise and provided in EMP for the different stages of the project operation.

b. Ambient Air

149. During the preliminary assessment of the air quality, measurement of Inorganic Dust Pm2,5 - Pm10, Nitrogen Dioxide, Sulphur Dioxide, Carbon Monoxide, Carbon Dioxide were performed at 17 sites, with Aeroqual Series 500. Each parameter was measured for 5-7 minutes. Maximum, minimum, and average concentration were calculated. Results of ambient air measurement are provided in the tables below in ppm and in m3.

Table 28 a) Results of Ambient Air Measurement (in mg/m3)

Kharagauli #2 Public School, Mshvidoba Street #11		Kharagauli	Imereti	12.09.2022			
			CO	NO2	PM10	PM2.5	SO2
Maximum (ppm)			3.1	0.0	0.011	0.005	0.0
Minimum (ppm)			0.0	0.0	0.035	0.003	0.0
Average (ppm)			1.8	0.0	0.017	0.003	0.0

Source: Consulting Company “Gergili”

150. According to the report, some varies in measurements are caused by different circumstances at the time of the measurement, which may be caused by traffic, burning of remaining in households' gardens and smoke from nearby areas.

151. During construction, air quality is likely to be affected by exhaust emissions from the operation of construction machinery and dust generated exposed soils from basements. The dust may settle on trees and crops, and/or cause of respiratory stress for nearby residents. Air quality can be also affected by the special equipment, which will be installed in the workshops, and which may include a risk of exhaust system malfunctions or likely generation of toxic and hazardous waste materials. Detailed mitigation measures related to the air pollution are provided in EMP.

c. Sewerage System Management

152. All project areas has its own central sewage system.

d. Solid Waste System Management

153. The solid waste management is done at the municipality level, which is managed by a special service in the municipal administrations. Sometimes the solid waste is placed in the nearest temporary landfills and then disposed in the main landfills. Waste management companies conduct waste management in landfills. In case of construction, the contractor is obliged to conduct waste management.

e. Project Sensitive Receptors

154. The construction works will be carried out within the boundaries of the project areas. As the site are located in urban areas houses and other facilities, are represented around them. For temporarily affect by noise, dust and other disturbing factors mainly during construction phase, which should be minimized by implementation of mitigation measures provided in EMP. The location of the sensitive receptors along the project site are provided in the Table below.

Table 29 Sensitive Receptors along the Project Site

Name of the Selected Site	Type of Sensitive Receptor	Location from Construction Area
Kharagauli Public School #2 (Tetratskaro building)	Agricultural lands	Next to the yard

Source: Technical Assistance-9790 GEO.

V. DESCRIPTION OF THE PROJECT BASED ON DETAILED DESIGN

155. Within the Modern Skills for Better Jobs Sector Development Program, 24 projects are planned to be implemented, of which 2 will be hubs, and the remaining 22 will be VET schools.

156. Due to the fact that the program is planned to cover almost all regions of Georgia, in addition to the fact that the project sites are separated from each other by a long distance, it was decided to combine the plots into several tenders and lots.

157. Within the framework of the proposed IEE, the tender procedure will be carried out within 1 tender for Kharagauli public school #2

a. Kharagauli N2 public school

158. The project area is located in Kharagauli township, on Solomen Mefi Street, plot 1987 (cc 36.01.31.1987). It can be reached from Dzirula-Kharagauli-Moliti-Fona-Chumateleti road. The area of the plot is 1636 m2. The area of the new building intended for the vocational school is
710.52 m2. Useful area is 610.32 m2. It is a two-story building connected by a staircase and an elevator. The dimensions of the first floor are: 15.00 m x 27.45 m. and on the second floor: 15.00 m · 21.45 m. The construction material of the walls is pumice blocks with a thickness of 0.40 m, internal partitions - 0.20 m. Through the central entrance, we find ourselves in the corridor from where the students will be distributed through the corridor to study spaces and wet spots. On the first floor there is a woodworking program, bathrooms (women/men with disabilities). The connection between the floors is arranged in the form of a staircase and an elevator, the staircase will be covered with concrete. The facility will house two educational programs -- cooking and woodworking. According to the project, it will be possible to accommodate 120 students. The woodworking program is located on the first floor of the building, which has three rooms. Also, on the same floor are sanitary facilities, two for disabled persons. As for the second floor, it is reserved for 5 culinary rooms, two disabled sanitary facilities and two bathrooms. Finishing materials - ceramic granite floors will be arranged in all spaces. The walls will be plastered and painted in white color, walls in wet areas will be covered with ceramic granite. A moisture-resistant gypsum- cardboard tile will be installed on it, and point lights in black color will be installed on it. In other spaces, plaster-cardboard tiles. Woodworking program: Wood processing - Fablab - 72.28 m2, Materials storage - 58.64 m2 Carpentry, wood reconstruction and furniture making workshop -
142.93 m2 Cooking program: Confectionery (shared with culinary) storage for equipment - 13.88 m2, Culinary and confectionery combined laboratory - 113.55 m2, Confectionery (shared with culinary) washing products - 29.98 m2, Confectionery storage of refrigerators and products - 17.84 m2, Materials storage - 13.38 m2

159. The territory can be reached by Dzirula-Kharagauli-Moliti-Fona-Chumateleti road. A detailed traffic management plan shall be developed by the Construction Company (CC) in accordance with his proposed working methodology and submitted to the engineer for approval. In case of damage, the CC is obliged to recover/reinstate these roads and/or other local infrastructure, and agricultural lands.

160. Under the safety, water supply, sewage, air ventilation and heating systems will be arranged as well. Water supply will be provided from the city's water supply network; Wastewater will be discharged into the city's sewage network. The fire system is arranged too.

161. Camp and storage areas will be temporary arranged on the project site, only for construction work. Constriction site organization scheme and camp site management plan will be prepared by the Construction Company (CC) before commencement of construction activities, and will be shown in SSEMP. Camp site will be selected keeping in view the availability of an adequate area for establishing campsites, including parking areas for machinery, stores and workshops, access to communication and local markets, and an appropriate distance from sensitive areas in the vicinity. Location of the camp site shall be agreed with Supervision Company.

162. During the studying process of the project territory, total amount of the top soil maybe accrued 80-90 m3. The soil removed from the area will be temporary stored on the site and will be used for backfilling purposes. In case of accumulation of remaining amount will be disposed according to agreement with local municipality cultivation works.

163. Approximately 1700-2000 m^3 excess ground will be generated due to the earthworks. The soil removed from the area will be temporary stored on the site and used for backfilling purposes. According to the Waste Management Code of Georgia inert waste, during the construction work if remain any amount of subsoil can be used for backfilling activities according to written agreement with local authority.

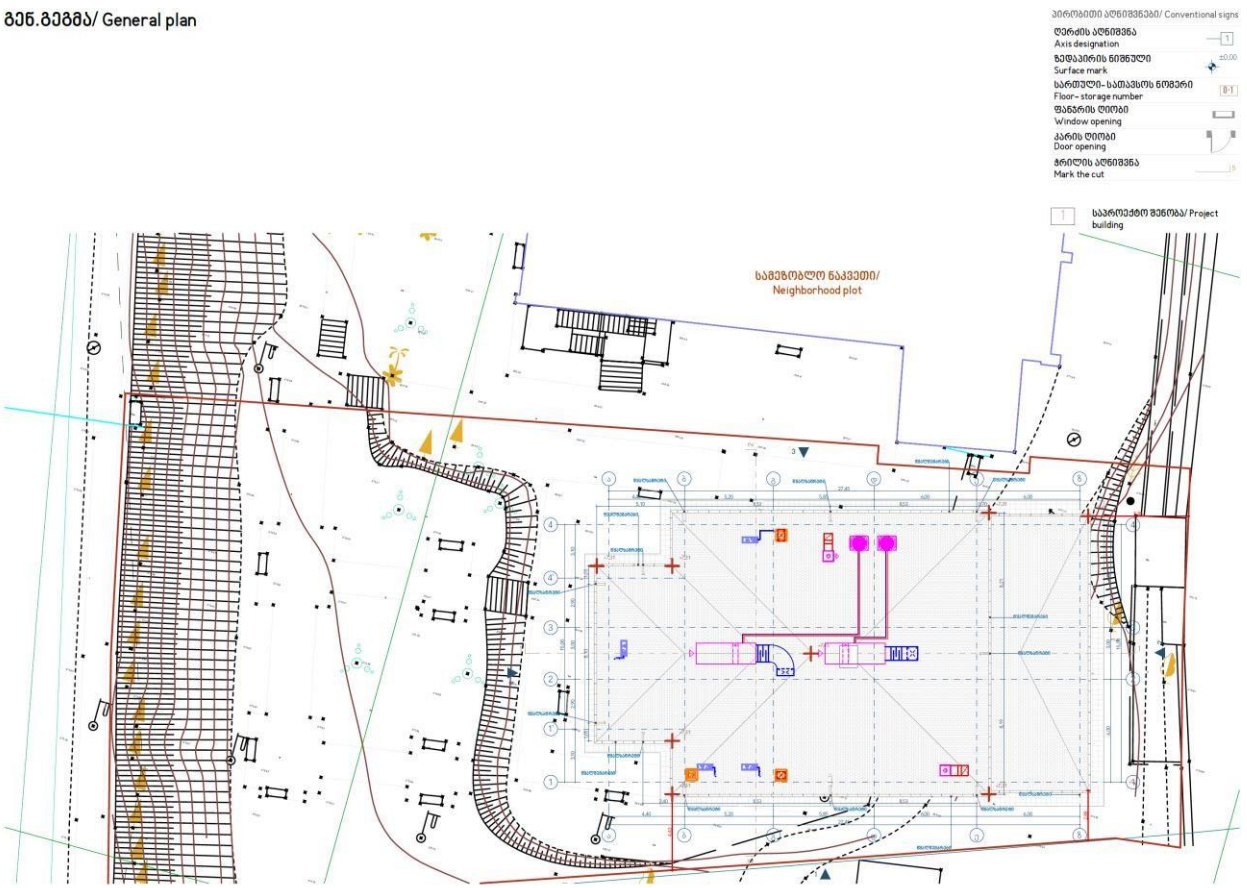
164. According to the new design, there is not necessary tree cutting.

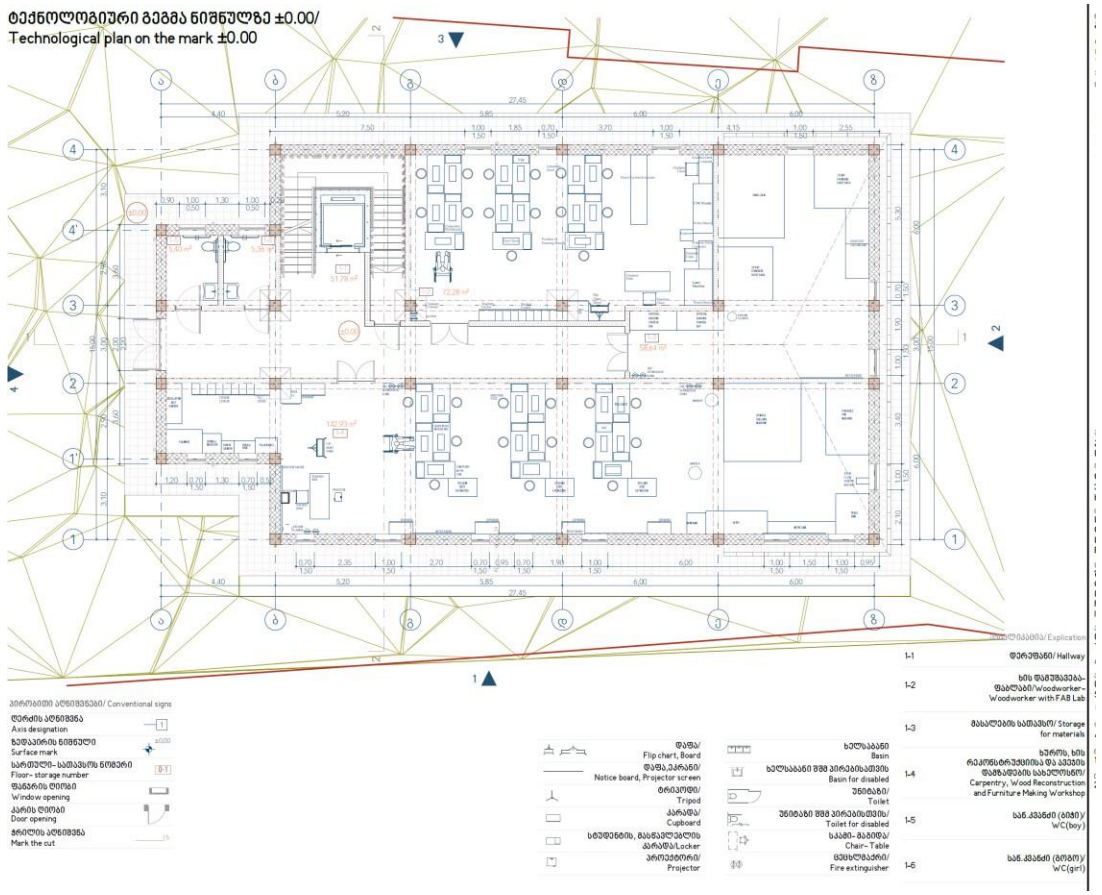
165. The nearest river Chkherimela is about 25-30 m away from the project territory. Nearest residential house is about 15-20 m away from the project territory.

166. In accordance to the revised scheme of seismic regions of the territory of Georgia, city Kharagauli belongs to the 8-point seismic activity zone according to the MSK64 scale (Order of the Minister of Economic Development of Georgia No. 1-1/2284, October 7, 2009, Tbilisi).

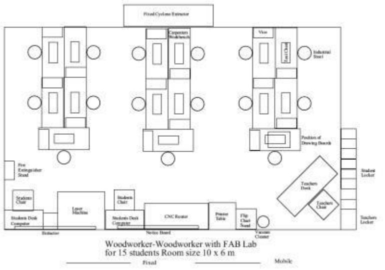
Figure 4 Situational map of the project territory

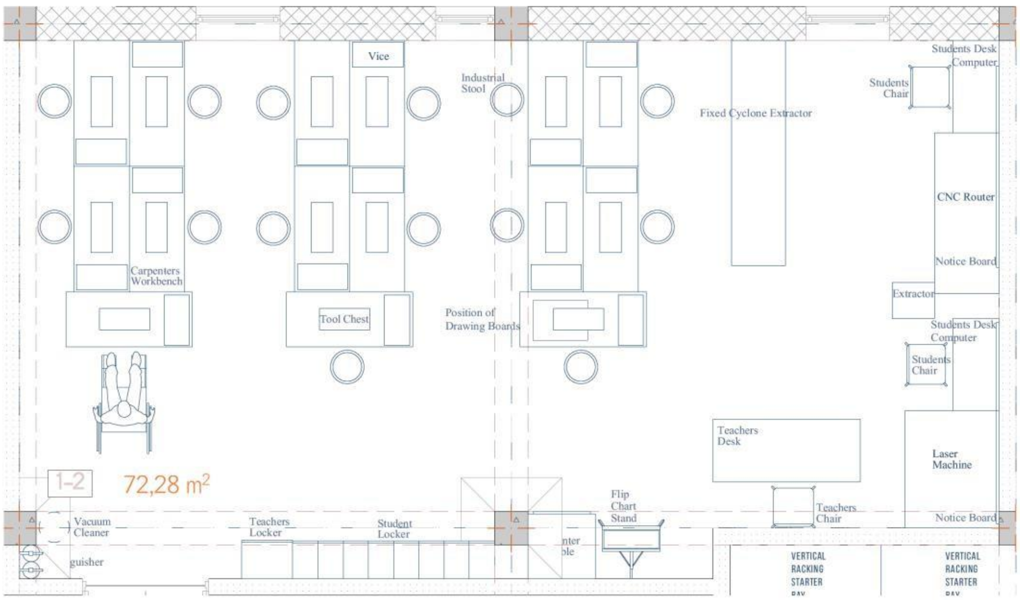
Figure 5 Gen-plan of the project territory



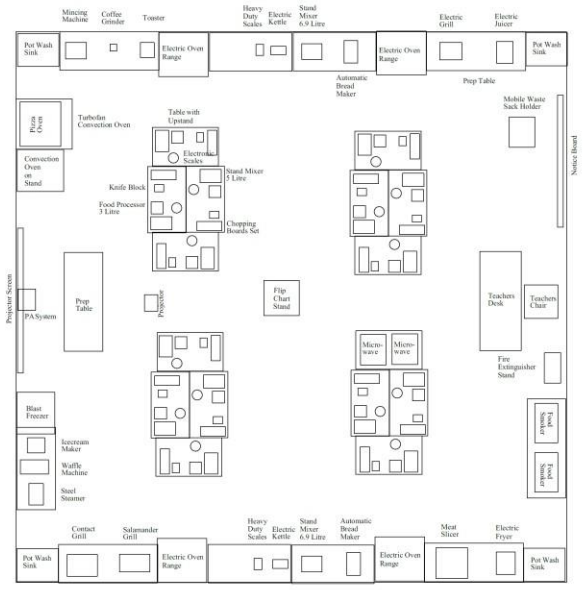


ხის დამუშავება- ფაბლაბი/ Woodworker-Woodworker with FAB Lab





კულინარიისა და საკონდიტრო ნაწარმის კომბინირებული ლაბორატორია/Culinary and Confectionary Combined Lab



Culinary and Confectionary Combined Lab for 15 Students. Room size 10 x 10 m

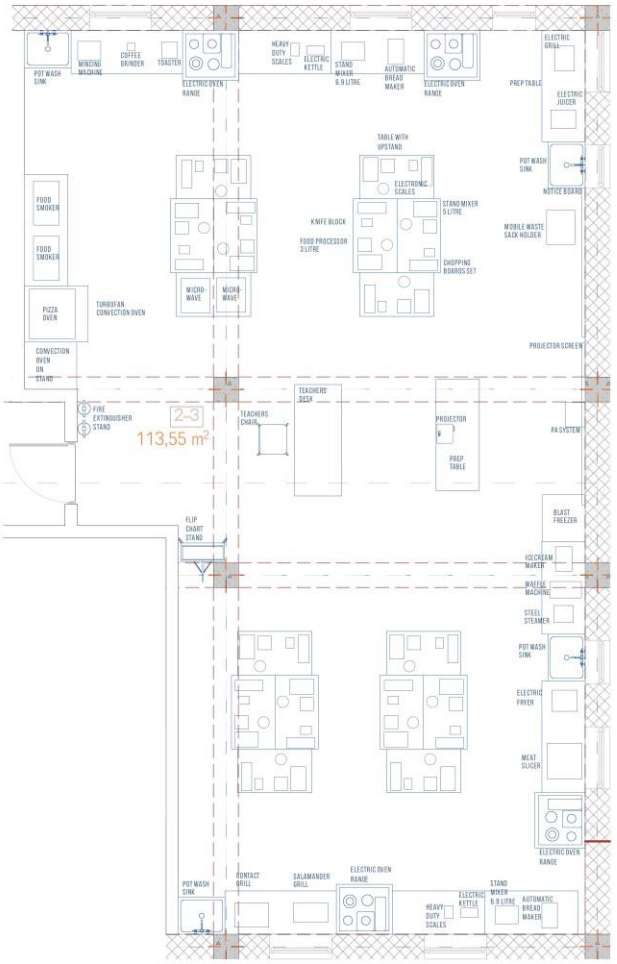


Figure 6 3d visualization

L. Conclusion and recommendation

167. Prior and in the process of construction, and after completion phase the following activities will be done by the CC:

a. Designation of Environment, Health and Safety (EHS) staff responsible for preparing the SSEMP, compliance with safeguard requirements, implementation of the SSEMP and other contractual provisions related to EHS, addressing site-level complaints/grievances from communities, implementation of any corrective action, coordination with and corresponding information to PIU and the Construction Supervisory Consultant (CSC);

b. Identifying sensitive receptors adjacent to the project sites and conduct instrumental measurement, particularly noise and vibration, soil contamination, air pollution;

c. Prior civil-works commencement, preparation and submission to PIU of the required plans[25]:

d. Site Specific Environment Management Plan (SSEMP);

e. Site-Specific Health and Safety Plan;

f. Traffic Management Plan;

g. Noise and Vibration Management Plan;

h. Waste Management Plan;

i. Emergency Response Plan;

j. Camp Site Management Plan;

k. Cultural heritage management plan;

l. Post-construction environmental Audit Report.

[25] CC is obliged to develop any other document/plan and conduct any other relevant survey per the employer's requirement in the process of civil works. No works are allowed until approval of SSEMP.

168. Obtaining of all required permits, licenses and approvals: licenses for inert material extraction (if applicable); Approval of Waste management plan by the MEPA (if needed); Approval of Technical report on inventory of atmospheric air pollution stationary source by the MEPA (if required); Agreement on construction waste disposal on the nearest landfill; Agreement on hazardous waste (if any) disposal; Trees inventory report and permit for tree cut (if necessary) issued by local authority or by the MEPA in case of Red listed species (if required) and etc.;

169. Notification of local population on civil works commencement and arrangement of information banner regarding project and indicate contact persons; dissemination of information regarding duration of upcoming works;

170. Preparatory works: mobilization of the temporal infrastructure, transport and construction appliances and equipment and mechanisms needed for construction;

171. Establishing well-functioning Grievance Redress Mechanism to address any grievances in a timely manner;

172. Mitigate personnel safety risks;

173. Establishing and maintaining site records of: (i) weekly site inspections using checklists based on the SSEMP; (ii) environmental accidents/incidents including resolution activities; (iii) environmental monitoring data including instrumental environmental monitoring if needed; community relations activities including maintaining complaints register; (iv) monitoring reports;
(v) monthly reporting of SSEMP compliance and community liaison activities (see below); (vi) plan and schedule of the works to accomplish; (vii) List of machines and equipment needed for construction; (viii) records related to the occurring environmental problems; (ix) records about waste management issues; (x) written marking of areas of waste disposal and waste transportation instructions issued by the local authority; (xi) records about the supplies of necessary materials and their consumption; (xii) complaints log books; (xiii) Incident registration logs; (xvi) reports about the correction actions; (xv) logs of equipment control and technical maintenance; and (xvi) reports about the personnel training;

174. Implementing site clean-up measures after civil works finalization and reinstatement to pre- works condition or better;

175. Developing post-construction environmental Audit Report.

VI. ANTICIPATED IMPACTS AND MITIGATION MEASURES

M. Impact Assessment Process

176. The chapter provides an overview of the potential impacts of the project at the various stages of its implementation, which have been identified during field observations, secondary data reviews and ADB's Rapid Environmental Assessment, which is provided below.

177. The impacts were assessed in terms of both negative and positive affects according to the significance of their impact and its duration, type of impact and level of expansion. An impact assessment process was carried out for each phase of the project. Mitigation measures were designed for the unavoidable negative impacts to minimize and reduce environmental and social threats.

N. Notion of Significance

178. The term "environmental impact" or simply "impact" covers the negative, adverse or harmful as well as positive, desirable or beneficial impacts of the project on environmental settings. Prediction of impacts of the proposed activity is based on factual data; however, the significance of these impacts involves a value judgment technique. The nature of the impacts may be categorized in terms of:

(i) Direction - Positive or Negative;

(ii) Duration - Long or Short Term;

(iii) Effect - Direct or Indirect; and

(iv) Extent - Wide or Local.

179. Impact significance depends on both the nature of the impact and on the sensitivity of the receptor. The more sensitive the receptor, the greater will be the significance of impact from that proposed activity. For this IEE, activities and nature of impact are combined with the sensitivity of the receptor to evaluate the significance of the impact. The significance of impact can be characterized as very low, low, moderate, high, and very high. Environmental issues having "moderate", "high" and/or "very high" significance is provided with mitigation measures.

O. Methodology for Impact assessment

180. The impact was evaluated based on the likely effects of project activities on the different environmental parameters. Assessment was conducted based on the initial field observations and secondary data assessments.

P. Positive Impacts

181. The project has several positive impacts, such as the development of VET education system, socio-economic development, including assistance to women and vulnerable groups in the implementation of short-term VET programs for women and vulnerable groups.

Q. Potential negative impacts at the pre-construction phase

182. Potential negative impacts at the project pre-construction phase and corresponding mitigation measures are provided below.

a. Safeguards related issues

183. Safeguards related issues may not be fully reflected in IEE and generic EMP and not properly considered during planning and implementation of the project activities. The impact is high and the likelihood is moderate.

184. Mitigation measures:

(i) Review of IEE and update of EMP in case of changes in the list of the project selected sites and/or other important circumstances.

185. The bidding documents may not be responsive to the safeguards related issues and performance of the contractor can be low. The impact is high and likelihood is moderate.

186. Mitigation measures:

(i) Include all safeguards related clauses and integrate IEE and EMP into the bidding documents.

(ii) Contract provisions should contain health and safety issues showing that the type of arrangements and measures the contractor will take to address this risk.

187. Safeguard incompliances can be observed in different places during the implementation of civil works. The impact is high and likelihood is moderate.

188. Mitigation measures:

(i) Preparation of site-specific EMPs, taking into account environmental and social safeguards issues and potential impacts on sensitive receptors and corresponding mitigation measures.

b. Issues with construction regulations and permits

189. There is a risk that incompliance with construction standards and regulations and lack of necessary permits for the construction related works may arise. Impact is high and likelihood is moderate.

190. Mitigation measures:

(i) Agree design and construction related works with all relevant institutions;

(ii) Obtain necessary permits from relevant state institutions if required.

(iii) Particular attention to the construction near the sensitive receptors, high voltage power lines, railways, or other facilities.

c. Traffic related issues

191. Design may skip the provisions related to traffic regulation and vehicle movement. The impact is high and likelihood is moderate.

192. Mitigation measures:

(i) Develop traffic management frameworks prior to the commencement of works.

d. Designing issues

193. Non-optimized design of the workshops may cause adverse environmental impacts at the construction and operational phases. The impact is high and likelihood is moderate.

194. Mitigation measure:

(i) Taking into account the environmental and social safeguards aspects when planning the design of workshops;

(ii) Consider green building concepts for workshops design;

(iii) Taking into account the existing vegetation cover when selecting the construction area, in order to avoid cutting of trees and other plantations as much as possible;

(iv) Consideration of design alternatives to minimize adverse environmental impacts at the construction and operational phases;

(v) Ensure energy efficiency of buildings to reduce resource utilization and emissions during its operation.

e. Delays in learning process

195. Unpreparedness of teachers and students and local communities and delay of the educational process, caused by ongoing civil works. The impact is high and likelihood is moderate.

196. Mitigation measure:

(i) Informing of stakeholders in advance on the start of the civil works.

R. Potential negative impacts at the construction phase

197. Potential negative impacts at the construction phase and corresponding mitigation measures are provided below:

a. Noise and vibration

198. Noise and vibration will occur because of the movement of vehicles, construction equipment and other construction activities in the selected areas. Noise level may be particularly high during the construction phase in areas where new buildings are planned to be constructed. This will affect as the construction sites themselves, as well as the sensitive receptors nearby. Noise will occur during the rehabilitation of existing infrastructure, which will mainly affect the internal parameter of the building and the yard.

199. Mitigation measures:

(i) Carry out construction work mainly during vocations and the time free from learning process to avoid disruptions of the educational process and to minimize impacts on the sensitive receptors nearby;

(ii) No or limited nighttime and weekend works and ensure operation of heavy equipment during the day;

(iii) Limited number of machineries used at the same time;

(iv) Avoid noise as much as possible when reloading trucks;

(v) In case of grievance Install acoustic enclosures and noise isolation around construction areas; setting up local hoardings, screens or barriers to shied particularly noisy activities if any;

(vi) Provide hearing protection devices against noise;

(vii) Use of modern machinery and equipment compliant with sound and vibration standards;

(viii) Carry out activities by taking into account permissible noise and vibration standards;

(ix) On-site monitoring of noise and vibration level.

b. Air pollution

200. Air quality may decline due to increased traffic volume, movement of construction machinery and generation of dust from construction activities. This can affect the construction site itself as well as the nearby sensitive receptors. The impact and likelihood both are high.

201. Mitigation measures:

(i) Quarterly air quality measurements at least on the (CO_2) measurement parameter;

(ii) Develop a dust suppression scheme prior to construction if necessary;

(iii) Use of separate gates for trucks and vehicles to access the ground and avoid them as much as possible from sensitive receptors;

(iv) Ensure that emissions are minimized by cleaning of fuel injectors;

(v) Refuel vehicles by using of fuel nozzles and pumps to prevent fugitive emissions of volatile organic compounds;

(vi) Avoid dust generating activities on strong windy days;

(vii) Use of water dust suppression during dry weather;

(viii) Covering vehicles when transporting construction materials;

(ix) Limiting the speed of vehicle when transporting materials;

(x) Remove demolished materials from the site as soon as possible;

(xi) Conduct air quality monitoring at construction sites.

c. Construction waste

202. Generation of solid waste and wastewater may be high due to construction activities. The impact is high, and likelihood is also high.

203. Mitigation measures:

(i) Develop and agree on a waste management plan for each site prior to the commencement of civil works;

(ii) Develop a materials management plan prior to construction;

(iii) Minimization of waste generation;

(iv) Waste collection, treatment and disposal in accordance with the accepted standards;

(v) Allocation of special area in each site for construction and demolition debris;

(vi) Maintain photographs of the area, designed as the disposal site and restore the area construction is complete.

(vii) Timely disposal of waste at the nearest official landfill agreed with local municipalities

d. Soil and water contamination

204. There is a risk of soil and water contamination due to spill of fuel, oil, toxic chemicals, cement, and other construction material. Impact is high and likelihood is low.

205. Mitigation measures:

(i) Avoid spilling hazardous materials, such as fuel, oils and other substances, and store them accordance with accepted standards (using a secondary containment system and impermeable base liners).

(ii) Ensure labeling of stored material;

(i) Placing excavation materials in approved locations;

(ii) Maintenance of vehicle and other equipment only in the originally designated areas;

(iii) Coverage of trucks used for transportation;

(iv) Carry out regular technical inspection of vehicles, especially for fuel, oil and battery fluid leakage;

(v) Prevention of rives contamination by construction material;

e. Traffic jam

206. Temporary traffic congestion is expected in the vicinity of construction sites due to the increased number of vehicles and movement of construction equipment. The risk of traffic jams is mainly related to urban and densely populated areas. The impact is moderate, and likelihood is moderate.

207. Mitigation measures:

(i) Develop a traffic regulation plan including vehicles movement scheme for each site and act accordingly;

(ii) Provide traffic control equipment and personal too, e.g flagman;

(iii) Avoid moving vehicles next to the residential houses as much as possible and use alternative entrances;

(iv) Avoid transportation during rush hours;

(v) Repair of damaged areas, if any.

f. Asbestos containing material

208. During construction work use any asbestos containing materials (ACM) will be prohibited. The rehabilitation process may involve removal of hazardous materials from the old buildings, but during field observations, asbestos-containing materials were not found on selected sites, despite this, it is essential that construction work will be carried out carefully, taking into account the risks of subsequent exposure. The impact and likelihood both are low.

209. Mitigation measures:

(i) ACM shall not be used as a new material for rehabilitation of existing facilities or in construction of new ones;

(ii) Removal and disposal of existing asbestos-roofing sheets in accordance with the internationally recognized standards and state regulations;

(iii) Removal activities to be scheduled during student' absence time;

(iv) Equip workers with special equipment.

g. Excavation at construction site

210. Construction of some new buildings/workshops may include excavations at construction sites, which may lead to soil stability, health and safety issues. In addition, this process can cause damage to archeological specimens and underground objects. Impact Is high and likelihood is moderate.

211. Mitigation measures:

(i) Estimate the volume of excavation material, include top soil, which must be separate from subsoil and stored properly;

(ii) Avoid extra land excavation;

(iii) Limited movement of vehicles used for excavation;

(iv) Implement erosion protection measures;

(v) installation of barricades and special signboards;

(vi) Excavation in accordance with a specific requirement without damaging the underground facilities;

(vii) Immediate stop of activities in case of discovery of architectural objects and informing the MES.

h. Damage of utility supplies

212. In the process of temporary relocation of utility supplies during the works, there is a risk of their possible damage. Impact is moderate and likelihood is moderate.

213. Mitigation measures:

(i) Perform the activity carefully and in a timely manner; and

(ii) Involve all relevant structures;

(iii) Preparation of a utility relocation plan (if needed).

i. Impact on flora and fauna species and their habitats

214. There is a risk of direct or indirect impact on flora and fauna species and their habitats, which may be caused by construction activities. Impact is lower.

215. Mitigation measures:

(i) Assessment of the area prior of the construction works and avoid environmental sensitive areas during construction;

(ii) Avoid building in a place covered by trees or other vegetation;

(iii) Avoid works in areas populated by important wildlife species;

(iv) Obtaining of special permits in case of necessary cutting or trees and other vegetation (MEPA, local authorities);

(v) Planting to compensate damage appropriate ratio and in accordance to the regulations;

(vi) Develop alternative designs as needed.

j. Drinking water quality issues

216. Drinking water may not meet the requirements of technical regulation for drinking water at construction site. The impact and likelihood are both minimal.

217. Mitigation measures:

(i) Supply workers with bottled water during the construction period, especially in project areas where the assessment revealed that the drinking water quality does not meet the requirements of technical regulation on drinking water.

(ii) In order to check the quality of drinking water, laboratory tests of potable water should be carried out

k. Occupational health and safety issues

218. Due to risks associated with physical, chemical, biological hazards during the construction phase of the project, several occupational health and safety issues may arise. Impact is high and likelihood is moderate.

219. Mitigation measure:

Develop an emergency response plan;

(i) Provide the camp with separate toilets (preferable bio toilets) and provide health and safety equipment (uniforms, helmets, goggles, sun-protection equipment etc.), first aid kits, including snake venom drugs and bee venom antidotes;

(ii) Provide trainings to workers on health and safety issues.

220. Public health safety risks caused by improper fencing. Transmission of diseases from workers to community and vice versa. Impact is high and likelihood is moderate.

221. Mitigation measures:

(i) Ensure appropriate fencing of the area, especially in such places where the construction activities will be undertaken within the existing building;

(ii) Carry out activities remotely from the public;

S. Restoration of construction site

222. Construction or rehabilitation works will impact the existing environment, including utilities and landscape. Both impact and likelihood are moderate.

223. Mitigation measures:

(i) Develop a rehabilitation and restoration plan for each site to repair/restore damage prior to leaving the site;

(ii) Disposal of materials used for construction or rehabilitation in accordance with accepted standards and specific plans;

(iii) Restore area as an equal to the original conditions

T. Archaeological and Cultural Heritage Sites (Chance finding procedures)

224. The project does not envisage intervention on the CH monuments.

225. Land clearance works, grading and excavations are associated with the risks of damaging underground archaeological remnants. Such kind of impact is minimal on the project site.

226. In case of finding any artefacts of potential archaeological value, the following steps are required to be taken:

(i) Construction workers are obliged to stop works and immediately report to the Archaeological Supervisor.

(ii) Archaeological supervisor reports to the Chief Engineer at site and requests to stop activities at the site of finding. Archaeological supervisor executes first checking of the finding and the site where the finding was made;

(iii) In case the finding has no potential archaeological value, the Archaeological Supervisor reports to the Chief Engineer and the works are restarted. Appropriate record regarding the case is made in record book.

(iv) In case the finding is estimated as a potential archaeological relic, the Archaeological Supervisor reports to the Chief Engineer of the Construction Contractor and to the PIU (and supervising company / Engineer) requesting to stop construction activities and to inform the Ministry of Education, Science, Culture and Sport of Georgia about the incident.

(v) Chief Engineer of the Construction Contractor also reports to PIU informing about the stopped operations and requesting immediate engagement of Ministry of Education, Science, Culture and Sport of Georgia.

(vi) Ministry of Education, Science, Culture and Sport of Georgia will assign expert or group of experts and conduct necessary archaeological works at the site to identify the problem.

(vii) In simpler cases, after removal of the movable artefacts, fixing materials and conducting other required works, the experts of the of Ministry of Culture, Sport and Youth of Georgia will issue decision on recommencement of stopped construction work;

(viii) In exclusive cases of valuable and spatially spread findings, the Ministry may issue request to relocate the project works on a safe distance from the archaeological site.

227. Chance find procedure will be reviewed by the project supervision consultants' Heritage/Archaeological/PCR Expert prior to the start of works and to be shared to the CC for consideration in the site-specific EMP.

U. Potential negative impacts at the operational phase

228. Potential negative impacts at the operational phase are described below.

a. Noise and vibration

229. Noise and vibration in the workplace can be caused by mechanical impact, air or fluid flow and the vibrating surfaces of a machine. The impact is high and likelihood is high.

230. Mitigation measures:

(i) Designing walls, floors, doors, and windows providing sound transmission loss and cover ceilings and walls with sound-absorbing materials;

(ii) Remove noise sources from teachers and students by installing sound-proof barriers and providing buffer zones in woodworking workshops;

(iii) Installation of heavy bases for noisy equipment and isolate them from other equipment in woodworking workshops;

(iv) Select equipment that does not exceed the permissible noise and vibration permissible limits and equip them with silencers and dampers.

(v) Reduce outdoor noise in buildings by using sound-absorbing materials such as soundproofing panels or drywalls or reinforce frames through open cell foam and by installing doubled glass windows where the baseline measurements revealed the high noise level;

(vi) Operation of workshops during the day;

(vii) Noise and vibration level monitoring.

b. Toxic and hazardous waste

Some of project waste may be generated sawdust in large and fine particles, which can hang in the air for a long time and cause serious health problems. Culinary workshops may involve the risk of exhaust system malfunctions, which have a negative effect on health and pose a serious risk of fire. Impact is high and likelihood is moderate.

231. Mitigation measure:

(i) Collect waste in appropriate containers to prevent possible spillage and emanation;

(ii) Disposal of waste generated at various workshops in according with regulations;

(iii) Provide equipment with appropriate filters and other necessary technical means;

(iv) Installation of appropriate exhaust system equipped with special fire protection means in culinary art workshops sites.

(v) Installation of exhausting ventilation system for each student work table in the wooden workshop to prevent toxic fumes from solvents and paints in sites;

(vi) Installation of wood dust collector and regular cleaning the machinery in each wood-processing workshop;

(vii) Arrangement utility sink for cleaning the special equipment in wood processing workshops and in culinary art workshops;

(viii) Work out the waste disposal plan for pharmaceutical workshop.

c. Occupational health and safety issues

232. Several health and safety issues may arise for trainers and students working in specific workshops.

233. Mitigation Measures:

(i) Equip workshop ventilation and related system to prevent the risk of spreading infections;

(ii) Prevent taking of high-risk containing material (flammable, toxic, explosive and high voltage equipment) in each site, especially in electronics and robotics workshops;

(iii) Allocate separate space for servers and UPS devices, isolated from students and teachers in ICT workshops.

(iv) Develop an emergency plan for each workshop place;

(v) Equip students and trainers with appropriate personal protective equipment, such as safety goggles, hearing protectors, respirators/masks etc.

(vi) Wearing appropriate clothing;

(vii) Use of equipment, machinery and tools in safe conditions;

(viii) Equip workshops with first aid kits;

(ix) Install emergency lightening, fire detecting and alarm systems and provide firefighting equipment;

(x) Use of high standard electrical installations/equipment;

(xi) Install power isolators;

(xii) Install sockets, plugs and cables in safe places;

(xiii) Train students and teachers in machinery and equipment protection;

(xiv) Train students and teachers on health and safety issues and inform them how to act in case of accidents.

VII. INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

A. Public Consultations in the Frame of the Project

234. After updated the detailed design public consultation meeting was carried out for all selected sites, on summer 2023, photos of the meetings are provided below. List of people attended the meetings is provided in Table below.

B. Disclosure Requirement and Procedures

235. The project executing agency MES will disclose this addendum to IEE and EMP to all the stakeholders before the commencement of the proposed project. The IEE report will be available to the stakeholders in line with the Georgian legislation. The addendum of IEE for selected sites will also be disclosed on the ADB website.

VIII. ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN

C. Introduction

236. The environmental management plan (EMP) presented here provides the mechanism to implement the mitigation measures and assistance in infrastructure development identified during the environmental assessment. The EMP proposes an effective plan of action that will indicate responsibilities and required measures to minimize the negative environmental & social impacts at various stages of the project. It is the responsibility of the contractor to develop site- specific environmental management plan using this EMP and get approval from PIU with endorsement of ADB before the commencement of physical works on site. The EMP below are provided for new construction and rehabilitation project individually.

D. Objectives of EMP

237. EMP provides a mechanism to address the adverse environmental impact of a project during its construction, to accelerate project benefits, and to introduce standards of good practice to be adopted for all project works. The objectives of the EMP are to:

(i) Define the responsibilities of the project proponents, contractors and construction supervision consultants;

(ii) Facilitate the implementation of the mitigation measures identified in the EIA;

(iii) Define a monitoring mechanism and identify monitoring parameters;

(iv) Provide a procedure for timely action in the face of unanticipated environmental situation; and

(v) Identify training requirements at various levels.

E. Responsibilities for the EMP Implementation

238. The construction company will be responsible for EMP implementation, EMP has prepared for construction and rehabilitation sites individually. The company will assign experienced environment, health and safety specialist who will be responsible for ensuring implementation of the safeguard issues specified in the management plan.

239. The PIU, through the architectural design and construction supervision firm, will have the overall responsibility for supervision of contractor's environmental performance, including coordination of public consultation process, GRM and monitoring. Supervision company's environmental and social safeguards specialist will be assigned and responsible for supervising EMP

implementation by Construction Company. The tasks of the specialist include: (i) updating the IEE document as necessary if new environmental issues are identified; (ii) reviewing and approval of site- specific EMPs prepared by the contractor; (iii) monitoring EMP implementation; (iv) providing support in capacity building on environmental management issues; (v) facilitate the preparation of safeguards related reports to ADB. PIU will provide semi-annual monitoring reports to ADB.

F. Site Specific Environmental Plans

240. The contractor companies are responsible for preparation of site-specific EMPs based on the generic EMP, which is annexed to this IEE document. The plans shall be submitted to PIU by contractor ten days before taking possession of any work site.

Table 30 Environmental Management Plan for new construction site (Vani, Kharagauli, Chkorotsku, Tsalenjikha, Martvili)

Project Activity/ Item	Potential Risks and Impacts	Mitigation Measures	Location	Indicators	Institutional responsibility		Implementation Schedule	Related Costs
					Implementation	Supervision		
Pre-construction Phase								
Planning of the project activities	Safeguards related issues are not fully reflected in IEE and generic EMP and not properly considered during planning and implementation of the project activities	(i) Review of SIEE and update of EMP in case of changes in the list of the project selected site and/or other important circumstances	For Kharagauli site	Safeguards related aspects are properly considered during planning and implementation of the project activities	TA		TA phase	Expert related costs
Integration of safeguards related aspects into the bidding documents	Bidding documents are not responsive to the safeguards related issues and performance of the contractor is low	(i) Include all safeguards related clauses and integrate SIEE and EMP into the bidding documents. (ii) Include in contract provisions health and safety issues 5(as part of the HSP and ERP)	For Kharagauli site	Bidding documents contain all necessary clauses related to safeguard issues; SIEE and EMP are attached to the bidding documents and contractor is performing accordingly;	PIU		Project start phase Prior to contract award	No special costs expected

				Health and safety provisions (as part of the HSP and ERP) is in place prior to the contract award				
Planning of the civil works	Safeguard incompliances observed in different places during the implementation of the works	(i) Preparation of site-specific EMPs, taking into account site- specific environmental and social safeguards issues and requirements; potential impacts on sensitive receptors and corresponding mitigation measures;	For Kharagauli site	Site-specific EMPs are prepared and presented to PIU for approval at least ten days prior to starting of the civil works; The works are planned taking into account all possible site-specific risks, includes corresponding mitigation measures and are in compliance with site-specific requirements’	Contractor	Architectural Design and Construction Supervision Firm PIU	Two weeks before starting the civil works	Expert related costs

Construction regulations and obtaining permits	Incompliance with construction standards and regulations and lack of necessary permits for the construction related works	(i) Agree design and construction related works with all relevant institutions; (ii) Obtain necessary permits from relevant state institutions if required. (iii) Particular attention to the construction near the sensitive receptors, high voltage power lines, railways, or other facilities.	For Kharagauli site	All necessary permits are obtained and works agreed with corresponding institutions; Documents are presented to the PIU before starting of the civil works	Contractor	Architectural Design and Construction Supervision Firm PIU	Before the commencement of the civil works	No special costs expected
Planning of transportation	Provisions related to traffic regulation and vehicle movement skipped in the designing process	Develop traffic management framework prior to the commencement of the works.	For Kharagauli site	Traffic management framework is in place	Contractor	Architectural Design and Construction Supervision Firm PIU	Before the commencement of the civil works	Cost for preparation of the plan

Designing	Non-optimized design of the workshops leading to adverse environmental impacts at the construction and operational phases	(i) Taking into account the environmental and social safeguards aspects when planning the design of workshops; (ii) Consider green building concept for workshops design; (iii) Taking into account the existing vegetation cover when selecting the construction area in order to avoid cutting of trees and other plantations as much as possible; (iv) Consideration of design alternatives to minimize adverse environmental impacts at the construction and operational phases; (v) Ensure energy efficiency of buildings to reduce resource utilization and emissions during its operation	For Kharagauli site	Optimal workshop design for each site	Contractor	Architectural Design and Construction Supervision Firm PIU	Pre-contraction/ designing stage	Design preparation costs
Information dissemination	Unpreparedness of teachers, students, and local communities; delays in learning process	Informing stakeholders in advance on the start of the civil works	For Kharagauli site	Information is disclosed at least 10 days before starting of the civil works	Contractor	Architectural Design and Construction Supervision Firm PIU	Prior to the start of the civil works	Costs related to dissemination of the information
Construction Phase								

Moving of vehicles and construction equipment and implementation of other activities related to the civil works	Noise and vibration caused by vehicles movement, construction equipment and other activities Impact on the construction site and the sensitive receptors nearby Inefficient learning process and annoyance of the communities living in the surrounding areas	(i) Carry out construction work mainly during vocations and the time free from learning process to avoid disruptions of the educational process and to minimize impacts on the sensitive receptors nearby; (ii) No or limited nighttime and weekend works and ensure operation of heavy equipment during the day; (iv) Avoid movement of vehicles and machineries near the cultural heritage site and the sensitive receptors as much as possible, especially in the areas where the sensitive receptors are particularly close. (v) Limited number of machineries used at the same time; (vi) Avoid noise as much as possible when reloading trucks; (vii) setting up local hoardings, screens or barriers to shied particularly noisy activities (if necessary); (viii) Provide hearing protection devices against noise; (ix) Use of modern machinery and	For Kharagauli site	Noise and vibration measurement data meets the standards No special complaints received related to noise and vibration issues Infrastructure stability is assessed Monitoring is being conducted	Contractor	Architectural Design and Construction Supervision Firm PIU	Throughout construction phase	Additional expenses due to time constraints Costs related to up to date equipment and its maintenance

		equipment compliant with sound and vibration standards;						

		(xi) Carry out activities by taking into account permissible noise and vibration standards; (xii) On-site monitoring of noise and vibration level. (XIII) Use temporary noise barriers while working in sensitive locations in case accidence of allowable limits is expected. (XIV) Give notice as early as possible to sensitive receptors for periods of noisier works. Describe the activities and how long they are expected to take. Keep affected neighbors informed of progress.						
	Air pollution due to increased traffic volume, movement of construction machinery and generation of dust from construction activities	(i) Conduct quarterly air quality measurement at least on the CO parameter in each site; (ii) Develop a dust suppression scheme prior to construction; (iii) Use of separate gates for trucks and vehicles to access the ground and avoid them as much as possible from sensitive receptors (iv) Use well-developed technology and equipment and maintain their quality; Smoke emitting vehicles	For Kharagauli site	Measurement data is in place and meets the permissible emission standards	Contractor	Architectural Design and Construction Supervision Firm PIU	Before commencement of works/throughout construction phase quarterly	Costs related to up-to- date equipment and monitoring

		and equipment shall not be allowed						

		and shall be repaired or removed from the subproject; (v) Ensure that emissions are minimized by cleaning of fuel injectors; (vi) Undertake immediate repairs of any malfunctioning construction vehicles and equipment; (vii) Refuel vehicles by using of fuel nozzles and pumps to prevent fugitive emissions of volatile organic compounds; (vii) Avoid dust generating activities on strong windy days; (ix) Use of water dust suppression during dry weather; Covering vehicles when transporting construction materials; (x) Limiting the speed of vehicle when transporting materials; (xi) Remove demolished materials from the site as soon as possible.						

Waste management	During the construction phase, if construction waste, from camp site, ancillary facilities and work site is not managed correctly, it can	(i) To ensure waste management is adequately controlled during the construction phase of the Project, the Contractor will be responsible for ensuring that the waste hierarchy is followed	For Kharagauli site	Waste management is adequately controlled regular training are conducted of staff in	constructor	Architectural Design and Construction Supervision Firm	Throughout construction phase	Cost related to construct ion waste management

	lead to numerous impacts on the environment and the local community. As examples; Illegal dumping of inert waste, e.g., waste concrete, can be unsightly, washing out of concrete mixers close to rivers can have impacts to water quality, poor storage and disposal of hazardous liquids can lead to contamination of soils and groundwater. Uncontrolled discharges of sewage and 'grey water' (e.g., from washrooms and canteens) from construction site and worker's camp may cause odors and pollute local water resources. As well as being a cause of complaints by the local population, this	including prevention, minimization, reuse and recycling; (II) The impact of waste generation on environment during construction will be mitigated by proper storage, maximum reuse and recycling of waste and timely removal of unusable waste to agreed location according to national waste management regulations; (III) The Contractor has an obligation to provide regular training of staff in waste management issues; (IV) All recyclable waste (plastic, metal, paper, etc.) will be sorted on source and sent for recycling where facilities for recycling of these materials exist; (V) Preparation of waste management plan		waste management issues; All recyclable waste (plastic, metal, paper, etc.) are sorted.		PIU		

	may lead to contravention of local regulations							

	and fines being imposed on the Contractor.							
	Generation of solid waste and wastewater	(i) Develop and agree on a waste management plan for each site prior to the commencement of civil works; (ii) Develop a materials management plan prior to construction; (iii) Minimization of waste generation; (iv) Waste collection, treatment and disposal in accordance with the accepted standards; (v) Allocation of special area in each site for construction debris; (vi) Maintain photographs of the area, designed as the disposal site and restore the area construction is complete. (vii) Timely disposal of waste at the nearest official landfill agreed with local municipalities	For Kharagauli site	Waste management plan is in place; Materials management plan is in place; Waste disposed on time;	Contractor	Architectural Design and Construction Supervision Firm PIU	Throughout construction phase	Cost related to construct ion waste manage ment

	Soil and water contamination due to spill of fuel, oil, toxic chemicals, cement and other construction material	(i) Avoid spilling hazardous materials, such as fuel, oils and other substances, and store them accordance with accepted standards (using a secondary containment system and impermeable base liners). (ii) Ensure labeling of stored material;	For Kharagauli site	No soil and water contamination is observed	Contractor	Architectural Design and Construction Supervision Firm PIU	Throughout construction phase	Cost related to maintenance
		(iii) Placing excavation materials in approved locations; (iv) Maintenance of vehicle and other equipment only in the originally designated areas; (v) Coverage of trucks used for transportation; (vi) Carry out regular technical inspection of vehicles, especially for fuel, oil and battery fluid leakage;						

Movement of vehicles and construction equipment	Temporary traffic congestions	(i) Develop a traffic regulation plan including vehicles movement scheme and act accordingly; (ii) Provide traffic control equipment; (iii) Avoid moving vehicles next to the residential houses as much as possible and use alternative entrances; Avoid transportation during rush hours; Repair of damaged areas, if any.	For Kharagauli site	Traffic management plan including vehicle movement scheme is on place; Damaged are repaired	Contractor	Architectural Design and Construction Supervision Firm PIU	Throughout construction phase	Costs related to traffic regulation
	Using asbestos containing materials (ACM) during construction works	(i) ACM shall not be used as a new material for construction of new ones.	For Kharagauli site	Absence of ACM	Contractor	Architectural Design and Construction Supervision Firm PIU	Throughout construction phase	No special costs expected

Excavation at construction site	Excavations at construction site may lead to soil stability, health and safety issues. The process can cause damage to archeological specimens and underground objects.	(i) Determining the exact location of the excavations (ii) Estimate the volume of excavation material; (iii) Avoid extra land excavation; (iv) Limited movement of vehicles used for excavation; (v) Implement erosion protection measures; (vi) Installation of barricades and special signboard; (vii) Excavation in accordance with a specific requirement without damaging the underground facilities; (viii) Immediate stop of activities in case of discovery of architectural objects and informing the MOES. (viii) preparation of Topsoil management plan	For Kharagauli site	Archeological specimens are not damaged Underground utilities are not damaged	Contractor	Architectural Design and Construction Supervision Firm	Throughout construction phase	Construct ion related costs

Temporary relocation of utility supplies	Possible damage of utility supplies	(i) Perform the activity carefully and in a timely manner; and (ii) Involve all relevant structures.	For Kharagauli, site	Utilities are not damaged; no complaints from local communities	Contractor Municipality and other relevant institutions	Architectural Design and Construction Supervision Firm PIU	Throughout construction phase and at the completion of construction works	Usually municipality and CC takes responsibility for relocations

	Impact on flora and fauna species and their habitats	(i) Avoid building in a place covered by trees or other vegetation; (ii) Avoid works in areas populated by important wildlife species; (iii) Obtaining of special permits in case of necessary cutting or trees and other vegetation (MEPA, local authorities);	For Kharagauli, site	Detailed information on vegetation cover and existing wildlife species provided in Site-specific EMPs; No significant impact on biodiversity; Damage is compensated	Contractor	Architectural Design and Construction Supervision Firm PIU	Before starting of the works Throughout construction phase	Experts related cost; Possible costs related to the development of alternative designs

Campsite arrangements	Occupational health and safety issues due to the risks associated with physical, chemical, biological hazards	(i) Develop Health and Safety Management Plan and emergency response plan; (ii) Provide the camp with separate toilets (preferable bio toilets) and provide health and safety equipment (uniforms, helmets, goggles, sun-protection equipment etc.), first aid kits, including snake venom drugs and bee venom antidotes; (ii) Provide trainings to workers on health and safety issues.	For Kharagauli site	Emergency response plan is in place Physical Injuries are not observed Teacher and students are trained Equipment is in place	Contractor	Architectural Design and Construction Supervision Firm PIU	Throughout construction	Health and safety related costs
	Public health safety risks caused by improper fencing. Transmission of diseases from workers to community and vice versa	(i) Ensure appropriate fencing of the area (ii) Carry out activities remotely from the public;	For Kharagauli site	The area is properly fenced	Contractor	Architectural Design and Construction Supervision Firm	Throughout construction	Health and safety related costs

						PIU		

Restoration of construction site	Impact on the existing environment, including utilities and landscape	(i) Develop a rehabilitation and restoration plan for each site to repair/restore damage prior to leaving the site; (ii) Disposal of materials used for construction or rehabilitation in accordance with accepted standards and specific plans; (iii) Restore area as equal to the original condition (iv) Compensate damage to biodiversity if any	For Kharagauli, site	Rehabilitation/restoration plan is in place; Damaged is restored Restored area is equal to the original condition; Damage on biodiversity is compensated.	Contractor	Architectural Design and Construction Supervision Firm PIU	Throughout operational phase	Costs related to restoration
Operational Phase								

Equip and operation of the workshops	Noise and vibration in the workplace caused by mechanical impact, air or fluid flow and the vibrating surfaces of a machine	(i) Designing walls, floors, doors and windows providing sound transmission loss and cover ceilings and walls with sound-absorbing materials in woodworking workshops; (ii) Remove noise sources from teachers and students by installing sound-proof barriers and providing buffer zones in woodworking workshops; (iii) Installation of heavy bases for noisy equipment and isolate them from other equipment in woodworking workshops; (iv) Operation of workshops during the day;	For Kharagauli site	Noise and vibration measurement data meet the established standards; Equipment does not exceed the maximum noise permissible limits and are equipped accordingly	Contractor Administration unit	Administration Other relevant authorities	Throughout operational phase	Costs related to up-to- date equipment
		(v) Noise and vibration level monitoring.						

	Hazardous waste generation and air pollution as potential impacts caused by operation of different workshops; generation of sawdust; health problems	(i) Collect waste in appropriate containers to prevent possible spillage and emanation; (ii) Disposal of waste generated at various workshops in according with regulations; (iii) Provide equipment with appropriate filters and other necessary technical means; (iv) Installation of appropriate exhaust system equipped with special fire protection means in culinary art workshops. (v) Installation of exhausting ventilation system for each student work table in the wooden workshop to prevent toxic fumes from solvents and paints. (vi) Installation of wood dust collector and regular cleaning the machinery in each wood- processing workshop; (vii) Arrangement utility sink for cleaning the special equipment in wood processing workshop and culinary art workshops;	For Kharagauli site	Toxic and hazardous waste treated in accordance with the corresponding standards and regulations	Administration	Administration Other relevant authorities	Throughout operational phase	Operational costs

	Health and safety issues for trainers and students	(i) Equip workshop ventilation and related system to prevent the risk of spreading infections;	For Kharagauli site	Health and safety issue s are fully considered in each project site	Administration	Administration	Throughout operational phase	Costs related to monitoring

	working in specific workshops	(ii) Prevent taking of high-risk containing material (flammable, toxic, explosive and high voltage equipment) in workshops, especially in electronics and robotics workshops; (iii) Develop an emergency plan for each workshop place; (iv) Equip students and trainers with appropriate personal protective equipment, such as safety goggles, hearing protectors, respirators/masks etc.; (v) Wearing appropriate clothing; (vi) Use of equipment, machinery and tools in safe conditions; (vii) Equip workshops with first aid kits; (viii) Install emergency lightening, fire detecting and alarm systems and provide firefighting equipment; (ix) Use of high standard electrical installations/equipment; (x) Install power isolators; (xi) Install sockets, plugs and cables in safe places;		Emergency response plan developed for each site Teachers and students are trained in health and safety issues		Relevant state authorities		

		(xii) Train students and teachers in machinery and equipment protection; (xiii) Train students and teachers on health and safety issues and inform them how to act in case of accidents.						

G. Health & Safety Management Framework

241. The Health and Safety Management Framework provides a basis for Contractor to create a detailed plan to reduce and remove any harm due to construction activities to local management, construction staff and local residents' health and ensure human safety of the management and construction staff at the project site.

a. Occupational Health and Safety Hazards

242. Hazards at the construction site can occur due to:

(i) Over-exertion;

(ii) Slips and fall;

(iii) Working on heights;

(iv) Exposure to heat (hot work);

(v) Struck by objects;

(vi) Moving machinery;

(vii) Dust;

(viii) Confined spaces and excavations; and

(ix) Other site hazards etc.

b. Safety Planning

243. The potential safety requirements that will be taken care of during construction are as follows:

(i) Permanent presence of a safety specialist in the site;

(ii) Traffic flows control by flagman;

(iii) Confined space entry procedures;

(iv) Compress gas cylinder safety;

(v) Leakage and spillage control;

(vi) Compliance with safety belt requirements;

(vii) Provision of protection rail;

(viii) Provision of safety signs on construction site;

(ix) Inspection at open bulk excavation area;

(x) Measure for operation of electrical and mechanical equipment;

(xi) Providing driving/operating safety requirements;

(xii) Installation of traffic signs on construction roads;

(xiii) Safety guard during transportation of dangerous products;

(xiv) Providing slip and fall trainings;

(xv) Use of personal protective equipment (PPE) provides additional protection to workers exposed to workplace hazards;

(xvi) Controlled measures for confined spaces; and

(xvii) Disciplinary sanctions against offenders.

c. Health Plan

244. The Health, Safety and Environment (HSE) Section of the contractor will be responsible for preparation of HS plan and publicizing and implementing labor protection, vocational health and sanitary epidemic prevention policies and standards during construction, offering health training to the staff and applying preventive measures. Some of the clauses that will be duly taken care while preparing a health plan will include the following:

(i) Measures to avoid diseases on site;

(ii) Establishment of the construction staff's vocational health file; and

(iii) Establishment of the medical treatment room and configuring professional medical treatment and nursing staff.

d. Responsibility

245. The contractor must constantly follow the health and safety norms during the construction works. The contractor construction units will be responsible for establishing the management system, implementation of management measures and ensuring realization of its objectives. While during the operations and maintenance phase, PIU and contractor will be held responsible for all HSE issues.

246. The details of organizational structure, roles and responsibilities will be determined in detailed plan to be prepared by the contractor.

H. Environmental documents and records

247. After identifying the Construction Contractor and issues of construction organization, the construction contractor, in line with the national legislation, is obliged to develop the following environmental documents and submit them to the MEPA for approval: (i) Technical Report of the stationary sources of harmful substances emitted into the atmospheric air (if necessary); (ii) Waste Management Plan (if necessary); and (iii) Inventory of trees (if tree cutting will be required)

248. The construction contractor is obliged to submit and agree on the following documents and records to the supervision consultant:

(i) Pre-construction report, including information about pre-works condition and photo- documentation;

(ii) Site-Specific Environmental Management Plan (SSEMP)

(iii) Traffic Management Plan

(iv) Noise and Vibration Management Plan

(v) Waste Management Plan (WMP)

(vi) Health and Safety Management Plan at worksite

(vii) Emergency Response Plan (ERP)

(viii) Camp Site Management Plan;

(ix) Cultural heritage management plan;

(x) Post-Construction Audit Report.

249. In addition, the Construction Contractor shall keep and use the following records in practice during the construction: (i) Plan and schedule of the works to accomplish; (ii) List of machines and equipment needed for construction; (iii) Records related to the occurring environmental problems; (iv) Records about waste management issues; (v) Written marking of areas of waste disposal and waste

transportation instructions issued by the local authority; (vi) Records about the supplies of necessary materials and their consumption; (vii) Complaints log books; (viii) Incident registration logs; (ix) Reports about the correction actions; (x) Logs of equipment control and technical maintenance; and (xi) Reports about the personnel training.

I. Environmental Monitoring

250. In-house monitoring during construction phase will be conducted by construction companies, which will make sure that the construction activities are being carried out as specified in site-specific EMPs to be prepared by them, based on the IEE and generic EMP and submitted to the PIU 10 days before taking possession of any work site. Contractor will also train the staff in environmental and health and safety issues. The PIU, through the architectural design and construction supervision firm's environmental, health and safety specialist will have the overall responsibility for supervision the monitoring process.

251. IEE report note, there are risks of certain impacts on some environmental receptors during certain activities. One of the preconditions for reducing the negative nature and value is the correct management of strict and well-planned activities under strict supervision (environmental monitoring).

252. An Environmental Monitoring Plan (EMP) is presented in Annex 3 which outlines the activities and responsibilities associated with monitoring. The effectiveness of the proposed mitigation plan and ensuring compliance depends on the recommendations of the IEE.

253. The monitoring methods incorporate visual observation and measurements (if needed). The monitoring program describes monitoring parameters, time and frequency of monitoring, and collection and analysis of monitoring data. The size of monitoring depends on the value of the expected impact/risk.

254. The environmental monitoring plan must cover issues such as:

(i) Assessment of the baseline of environment;

(ii) Identification of the reasons for changes in the environment and evaluation of the outcomes;

(iii) Identification of correction measures when the target values cannot be reached;

(iv) Regular supervision over the degree and dynamics of the impact of the activity on the environment;

(v) Compliance with legal requirements for impact intensity;

(vi) Control over set parameters associated with significant ecological aspects;

(vii) Prevention and timely identification of possible violations related to ecological aspects or emergencies during activities.

255. During the construction/rehabilitation period the following are subject to observation and evaluation in the course of environmental monitoring (monitoring frequencies depends on distance from the sensitive receptors):

(i) Atmospheric air;

(ii) Vibration and noise;

(iii) Soil;

(iv) Labor conditions and meeting the safety standards, etc.

J. Reporting

256. PIU, through the architectural design and construction supervision firm will ensure that semi-

annual environmental monitoring reports are prepared and submitted to ADB, which will include information on environmental and social issues, where the information will be reflected on the progress made in EMPs implementation, problems and taken measures. PIU's monitoring, evaluation and reporting specialist will be responsible for coordination the reporting process together with the team.

K. Environmental Management Costs

257. The costs for environmental management of the project shall mainly consist of the (i) monitoring of works by the EMS who will be employed by site contractor (ii) baseline parametric measurement on air, vibration, EMF and regular parametric measurements of noise, dust, water, vibration and emission. Implementation of all the mitigation measures shall be part of the contractual works and obligation of the contractor.

258. Waste Management. According to the "Waste Management Code" (Article 14-Waste Management Plan of the Company), legal persons who annually produce more than 400 tons of inert waste, or more than 120 kg hazardous waste shall prepare a company waste management plan (WMP) that must be submitted to Ministry of Environmental Protection and Agriculture of Georgia for approval. In addition, according to the same law (article 15) – the CC should hire an Environmental Manager and submit contact information to the MEPA.

259. The cost for the environmental management for construction period is tentatively estimated for one site in the Table below.

260. In accordance with Waste Management Code, if the legal person is not required to develop a company WMP and have an environmental manager, under the project the CC is still obliged to prepare project-specific WMP and engage environmental specialist for project duration. Under the project the contractor is obliged to develop project-specific WMP.

261. All types of waste must be managed according to the approved waste management plan. Waste must be transported for disposal on identified landfill or transferred to licensed companies. Transportation, waste disposal on landfill, as well as transfer of hazardous waste to licensed companies is associated with certain costs. Considering the amount of waste generated.

262. The Construction Contractor must undertake quarterly noise, vibration and emissions monitoring at the sensitive receptors. Monitoring results should be included in the semiannual reports. Occupational and Community HS. The CC shall hire a qualified health and safety specialist who will provide safety training to the staff according to the requirements of the individual workplace. Prior to commencement of works, the work site personnel shall be instructed about safety rules for the handling and storage of hazardous substances (fuel, oil, lubricants, bitumen, paint etc.).

263. CC shall provide safe and healthy workplace for workers and take their welfare needs (facilities e.g. those that are necessary for the well-being of workers, such as washing, toilet, rest and changing facilities, and somewhere clean to eat and drink) into account. The Contractor is required to provide all personnel on site including Employer's Personnel and visitors with personal protective equipment, including protection for feet (safety boots), head, eyes, ears (safety helmets) and hands, etc.

264. An adequate supply of high-quality drinking water, with an upward drinking jet or suitable cups, should be provided. Changing facilities should also be provided for workers who change into special work clothing. Seats should be provided for workers to use during break.

265. Staff. The CC will appoint an Environmental Specialist the duration of the contract.

266. The construction company will be responsible for envisaging the implementation cost of the EMP, including the proposed mitigation measures (and additional activities, if any), and surveys (if required by the PIU and IEE) in their project budget.

267. Implementation of the IEE/EMP is obligatory for the CC. The CC shall be aware that the IEE will

require updating. The CSC will finalize the capacity-building program and ensure it is designed to be participatory to the extent possible so it is more effective, with a large amount of learning by doing, role- playing.

Figure 7 Environmental Management Cost[26]

Item	Unit Cost	Total Cost	Remarks
Development Required Plans	$ 1875-2500	$ 15 000 - $ 20 000	CC is obliged to develop any other plan and conduct additional surveys, if it is required in the process of construction works
Environmental Specialist (CC)	$ 1 500	Monthly for the entire construction period (Project duration is about 15 months)	The costs will be included in the contract signed between PIU and CC.
Full time HS Specialist (CC) [27]	$ 1 000	Monthly for the entire construction period (Project duration is about 15 months)	The costs will be included in the contract signed between PIU and CC.
Providing Required Trainings	-	-	CSC experts along with the CC experts are responsible for arrangement of capacity development and trainings. The costs are included in their contracts.
Environmental Management Specialist (CSC)	$ 2 500	Monthly for the entire construction period	The costs are included in the contract signed between PIU and CSC and no additional costs will occur.[28]
Notification of local population on civil works commencement: Installation of information banner regarding project and indicate contact persons	$ 500	Once, prior commencement of civil works	EHS and Social specialists of CC along with PIU and CSC are responsible for information dissemination regarding duration of upcoming works and conducting periodic public information campaigns via different communication channels. The costs are included in the contract signed between PIU and CC.

[26] The mentioned price is indicative and can be changed according to the location of each project, but according to the current market values, it should not exceed the amount indicated in the table, it should be noted here that the price of environmental management is given for one project

[27] CC is required to engage a full-time Health and Safety (EHS) Staff, with certification on applicable GEO health and safety laws/rules/regulations, knowledge of international and local regulations for Environmental protection and HS environmental legislation. As it is defined in the employer requirements, the staff shall have at least 5-year work experience and 3 years similar works experience. EHS shall remain engaged until the completion of all works.

[28] The environmental specialists of CSC are actively engaged in the monitoring of the ongoing projects and will be provide close monitoring and on-site presence as needed.

Installing the safety signs along the perimeter of the territory	-	$ 500	The cost is included in the contract signed between PIU and CC.
Equipping the camp with first aid kits	-	$ 100	CC shall provide safe and healthy workplace for workers and take their any other welfare needs into account
Facilities e.g. those that are necessary for the well-being of workers, such as washing, toilet, rest and changing facilities, and somewhere clean to eat and drink	$ 7 000	$ 7 000	Once prior of commencement of civil works
Parametric Measurements (at least 3 points)	$ 100	$ 300	To be conducted by the CC as defined in the SSEMP, noise and vibration management plan for noise-vibration, air emissions, dust measurements at the sensitive receptors
Watering the working surfaces in dry weather	$ 100-150	-	To be conducted by CC the total cost depends on the precipitations.
Disposal of construction waste on the Municipal landfill	1 tone - $ 3	-	The total cost depends on the amount of waste generated in the course of civil works. Additionally, it should be noted that some amount of inert waste will be used for backfilling works.
Containers intended for municipal waste	$ 66	$ 200	-
Containers intended for hazardous waste	$ 90	$ 90	No large amounts of hazardous waste (solid and liquid oil- contaminated waste, oil- contaminated ground, paint packing material, lead-containing accumulators) are expected to originate in the project construction phase
Demobilization of the temporal	$ 10 000	$ 10 000	Once, after completion of civil works.

infrastructure			The costs are included in the contract signed between PIU and CC.
Re-cultivation Works of the project Area	$ 15 000	$ 15 000	Once, after completion of civil works. The costs are included in the contract signed between PIU and CC.
Preparing of Post construction Audit Report	-	$ 2 000-2 500	After completion of civil works.

EA = executing agency; E&HS = environment, health, and safety; PPE = personal protective equipment; PIU = project implementation unit. Tentative environmental cost is 25 000-27 000$ for each site.

Source: Technical Assistance-9790 GEO.

IX. PROJECT GRIEVANCE REDRESS MECHANISM

L. Introduction

268. A GRM is a formalized system of accepting, assessing and resolving/ addressing community feedback or complaints. It provides predictable, transparent, and credible processes to all parties, resulting in outcomes that are relatively low cost, fair, and effective. GRMs build on trust as an integral component and facilitate corrective action and pre-emptive engagement. They also set out a timeframe in the resolution of complaints. The GRM will be established and operated in compliance with Georgian legislation and ADB's Safeguard Policy Statement (SPS) 2009 requirements.

269. At the national level, the Administrative Code of Georgia is the primary legislation defining the rules and procedures for grievance review and resolution. According to this law, the administrative body receiving officially lodged claims is obliged to review the claims, engage the claimant in the grievance review and resolution process, and make the final decision in the resolution of the claim/ complaint. In particular, the grievance package includes:

i. Name of the administrative body to whom the complaints are addressed
ii. Name, address, and contact details of the claimant
iii. Name of the administrative body, who's decisions or administrative acts are the subject of complain
iv. Name of the administrative act or decision, which is subject of complain
v. Content of the claim
vi. The context and facts, based on which the complaint is substantiated; and
vii. List of attachments.

M. GRM, Grievance Redress Committee and Grievance Focal Persons

270. The GRM consists of project-specific systems established at the municipal level and regular system established at the PIU. The grievance redress committee (GRCE) will be established at the municipal level as a project-specific instrument, functional for the whole period of the project implementation. The grievance redress commission (GRCN) is formed as an informal structure within the PIU to ensure grievance review, resolution and record.

271. A GRCE will be formed to administer project-specific grievances exercising grievance redress mechanism and handle grievances at Stage 1 of the GRM. The GRCE is the first-instance body to be established at the community level in each affected Municipality (village/community authority) and includes representatives of Municipal LAR teams and local communities. He/she will then be responsible for the coordination of GRCN activities and organizing meetings (convener). In addition, GRCE shall comprise village Rtsmunebuli or his/her representative, representatives of APs, women APs and appropriate local non-government organizations (NGOs) to allow voices of the affected communities to be heard and ensure a participatory decision-making process.

272. The grievance redress commission GRCN is formed by the order of the head of PIU as a permanently functional structure, engaging personnel of the implementing agency (IA), in this case the Ministry of Education and science of Georgia, from all departments having regard to environmental safeguard and LAR issues and complaint resolution. MOES representative, PIU top management representative, PIU monitoring, evaluation and reporting specialist, layer and engineer and other relevant persons. The GRCN is involved at the Stage 2 of grievance resolution process. The order shall also state that, if necessary, representatives of local authorities, NGOs, auditors, APs and any other persons or entities can be included in the commission as its members.

273. GRCEs will be established at the community level with PIU order and following composition: safeguards specialist of design and construction supervision firm DCS, Gamgebeli – concerned Gamgeoba (village level), representatives of civil works contractor, NGO representative, APs representative, acting as grievance focal person (GFPs).

274. Safeguard's specialist of DCS is coordinating the work of the committee and at the same time s/he is

nominated as a contact person for collecting the grievances and handling grievance log. The local authorities at the municipal level, contractor, as well as APs (through informal meetings) are informed about the contact person and his contact details are available in offices of all mentioned stakeholders.

275. The DCS will assist the project affected communities/villages identify local representatives to act as grievance focal person GFPs. The GFPs will be responsible for (i) acting as community representatives in formal meetings between the project team and the local community s/he represents; (ii) communicating the community members' grievances and concerns to the contractor during project implementation.

276. A pre-mobilization public consultation meeting will be convened by the PIU and will be attended by the GFPs, representatives of the contractor(s) and other interested parties (e.g. district level representatives, NGOs, etc. The objectives of the meeting will be as follows:

(i) Introduction of key personnel of each stakeholder including roles and responsibilities;

(ii) Presentation of project information of immediate concern to the communities by the contractor (timing and location of specific construction activities, design issues, access constraints etc.) This will include a summary of the EMP—its purpose and implementation arrangements;

(iii) Establishment and clarification of the GRM to be implemented during project implementation including proactive public relations activities proposed by the project team, ensures that communities are continually advised of project progress and associated constraints throughout project implementation period.

277. In the operational stage, complaints will be resolved at GRCE level.

N. Project Grievance Redressed Process

278. During the actual operationalization of the GRM, the process and communication flows will be centered with GRM Coordinator. DCS will serve as GRM coordinator. The GRM coordinator will take initiative to be observant of any issue and will try to obtain information, which will be used at the subsequent GRM process stages. Under normal processing through the GRM, complaints undergo four major procedural stages as follows:

279. Stage I: Registration and Initial Assessment. This is the entry point of complaint wherein the complainant is allowed to tell his side of the issue and to be assured that his grievance will be seriously and expeditiously dealt with. The following are the tasks in this stage:

280. - Receive Grievance. This task will entail listening intently from the source of the complaint, filling out the complaint form and registering the complaint in a GRM registry book, and assigning a GRM reference number. The complainant or representative shall affix a signature and provide contact particulars on the complaint form. Important information shall be entered in the complaint form, which can be supplemented by additional documents.

281. - Obtain Comprehensive Information. The GRM coordinator will mobilize some staff to obtain as much information as possible from the location where the complaint originated, the impact area and the outlying areas. Field information will be gathered using necessary survey methodologies, equipment and devices. Interviews shall be conducted directly from the field to have the actual appreciation of the nature of the complaint and to obtain other versions of the issue. It would be necessary to talk and discuss with as many people as possible who have direct and indirect knowledge of the problem. Photographs and videos shall be obtained, which can be used later in the analysis of the problem. Secondary backup information shall also be acquired to determine background information and cross-reference it with other sources of information.

282. - Screen and Assess: After gathering all the available and obtainable information, the GRM coordinator with the support of the staff shall analyze the complaint and determine the admissible information. The team will render an opinion on whether the complaint is project related or not and provide justifications for such opinion. The findings shall be communicated to the complainant upon which, in case of disagreement, supplementary information may

have to be provided by the complainant.

283. Stage II: Initial Resolution. Based on the opinions of the screening and upon presentation of additional documentary evidences by the complainant, GRM coordinator will direct the complaint to one of the following options:

284. -Refer to appropriate authorities. If the issue is not relevant to the project, the GRM coordinator will refer the issue to appropriate competent office and explain to the complainant the reasons. S/he will advise the complainant on what to do and provide contact particulars to that appropriate office if available. Primarily, these can be the Ministry of Environment Protection and Agriculture, local authorities or the local court in district or region that has jurisdiction on the issue. Also, if available and possible s/he can refer the complainant to some people who can really be of good help (e.g., NGOs). After these steps, the matter will be considered closed and resolution acceptance form will be issued for the acceptance and signature of the complainant. Relevant information regarding the resolved complaint shall be gathered and a cross entry shall be entered in the GRM registry book.

285. - Resolve within the project. If the complaint is found to be project related, the contractor/s will be given directive to resolve the matter. It would be necessary to have a meeting with the contractor/s' project manager regarding the issue. The meeting will entail determination of the most preferred options, which will be part of the next stage of GRM process.

286. - Reject the complaint with clear explanation. When in the opinion of the committee complaint is not project related, it is rejected and such decision will be communicated to the complainant, after which the matter will be considered closed and all relevant information shall form part of the archived information.

287. Stage III: Selection of Approach and Strategy. At this stage, the complaint will be accepted and agreed the proper approach and strategy for its resolution. Depending on the gravity of the situation and of the complaint the GRM has the following options:

288. - Contractor/s recommend solution. In this approach, as in most cases, the contractor shall decide on the technical solution to the issue and implement the measure/s. This seems straightforward especially if this is within the scope and obligations of the contract. Some contractual issues may arise pertaining to cost and payment considerations, but this can be decided by the contractor. After due decision is made on the division of scope and responsibility, the GRM coordinator will oversee the implementation of the resolution or measures and report to the PIU. The progress of the execution of works is documented with periodic reporting to PIU. The complainant is also apprised on the progress of the work for better attainment of results and for improved effectiveness of the measures.

289. - Complainant joint solution. In some cases, the cooperation and collaborative effort of the complainant is necessary to provide some avenues to facilitate the devising of a solution. It is a good strategy to involve the complainant in the problem-solving process as it can generate cooperation.

290. - Third party arbitration. In complicated matters where the complainant is reluctant to work directly with the contractor, the complaint can be elevated for arbitration. This may not be an easy approach as the project will have to organize and set up an arbitrating party, perceived as impartial, to execute the process. Nevertheless, this can still be pursued if both the contractor and the complainant agree to use this approach.

291. Local conflict resolution. These may be through the local courts, council of elders in the village, through the appointed head of local municipality, etc. Issues may be discussed through these avenues, and with the participation of the contractor, consensus can be arrived at for the benefit of those affected directly and indirectly.

292. Stage IV: Execution of Measures and Documentation. At this stage, the agreed solution or measures are implemented by the contractor under the supervision of the DCS firm and tracked by the GRM coordinator for documentary purposes.

293. -Execute solution. The execution of solution will entail engagement of the contractor and his staff. Designs or schemes will be agreed upon and are to be checked by the staff as part of their facilitation tasks. Equipment and materials will be employed, and work will be performed by the contractor and supervised by the DCS firm.

294. -Document the progress. The GRM coordinator will undertake full documentation of the work, and shall also include designs and schemes, costing, photographs of the work (before, during and after), which will form part of the progress reporting and documentation archive of the GRM.

295. At this stage, the complainant may either be satisfied or not satisfied, and the issue persists. The following pathways ensue in each of the cases: if the issue is deemed to be resolved satisfactorily, the grievance is considered 'Resolved' and two more tasks are to be accomplished:

296. -Completing the documentation. The GRM coordinator will complete all documentation and ask the complainant to sign the resolution acceptance form that s/he was satisfied with the measures implemented.

297. -Recording acceptance: In the end, the GRM coordinator will put an entry in the GRM registry book that the grievance is resolved.

298. In case the issue is not resolved, the complaint and grievance will follow another pathway entailing the following sub-tasks and then revert to Stage III to repeat the process:

299. -Review the complaint. The GRM coordinator will initiate a review and if necessary, request the group for larger review. The purpose of this is to determine other underlying issues that led to the non-resolution of the complaint.

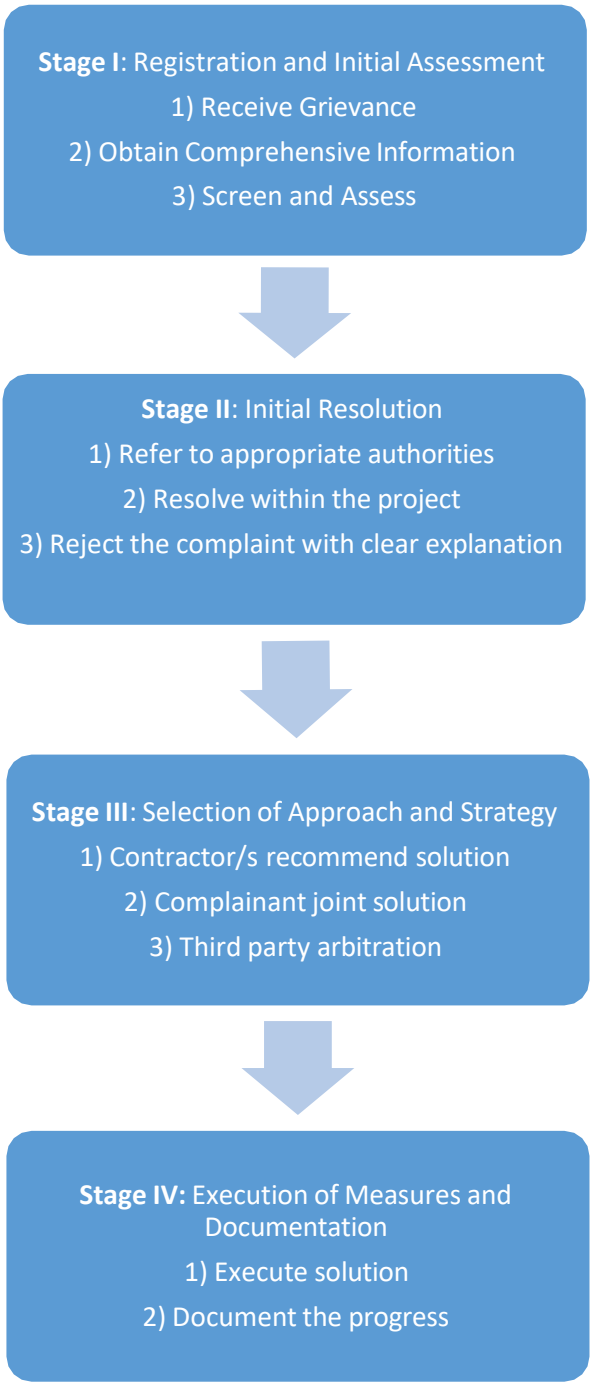
300. -Assign appropriate staff. It may be necessary to appoint appropriate staff to assist in the process or even obtain outside assistance from some governmental offices. The GRM coordinator will seek out other staff who can contribute to the resolution of the issue.

301. -Formulate approach/ strategy options: The GRM should also determine if the approach itself was the cause of the non-resolution of the issue. In this instance, the contractor may need to revisit the initial approach and further refine it or even change it entirely if required. During this internal sub-process, the GRM coordinator should be proactive in documenting every step, which will form part of the documentation and progress monitoring of the GRM process.

302. The timeline for resolution of complaint for each level (GRCE, GRCN) will be not more than 2 weeks for each level and not more than 1 month for the whole cycle (excluding the specific cases).

303. A complainant may also register/file a case in a court of law. The GRM doesn't impede access to the country's judicial or administrative remedies and a complainant can access the courts at any point in time. However, all efforts will be made to settle the issues raised at the GRCE/GRCN level. All complaints and resolutions will be properly documented by the PIU and made available for review, monitoring and evaluation purposes. In addition, the complainant can appeal the decision and bring the case to the ADB Accountability Mechanism (AM). The project level GRM does not in any way, impede the access of the complainants to the ADB AM or the country's judicial or administrative remedies. Should the complainant wish to register a complaint with the ADB AM, the focal person should provide the complainants the ADB AM contact information.

Grievance Process Flow Chart



304. The timeline for resolution of complaint for each level (GRCE, GRCN) will be not more than 2 weeks for each level and not more than 1 month for the whole cycle (excluding the specific cases)

Templates and Schedules

Grievance Form

Modern Skills for Better Jobs Sector Development Program

Citizen (Name & Surname)

Personal Number

Actual address

Telephone

Email

Facility address (name of the facility and address in connection with which the dispute arose) Type of work (describe what type of work is underway or planned)

Content of the grievance (describe what has affected or may have affected you)

Desired result (describe what actions you want the foundation to take and the result you want to achieve) Evidence (indicate the evidence you can present or attach to the grievance)

Applicant's signature and date

Grievance Registration Log

The grievance log shall include at least the following information:

1. Date of the grievance receipt
2. Front Office registration number
3. Name of the grievance author
4. Phone number of the grievance author
5. E-mail of the grievance author
6. Grievance object (address or name of the object)
7. Subject matter of the grievance
8. Name & surname of the grievance reviewer
9. Department (s) involved
10. Grievance review status (in the process of processing, documentation requested, satisfied, rejected, sent to the Commission, satisfied by the Commission, rejected by the Commission, closed-out)
11. Date of consideration by the Commission
12. Actions taken
13. Date of action
14. Grievance close-out date
15. Feedback Letter #
16. Note

Notice of Grievance Redress Outcome

This letter shall contain the following information:

1. Addressee Name & Surname
2. Address of the addressee
3. Registration number and date of the grievance
4. Date of grievance
5. Grievance author
6. Documents analyzed during the review
7. Outcome/decision of the grievance review
8. Expected actions (if any)
9. Where can this decision be appealed (in the Grievance Redress Commission of the PIU, in the court, ADB Georgia Regional Office, ADB Head Office)

Grievance Close-Out Report

(To be filled in only if the grievance is satisfied or partially satisfied) Date of filing the grievance _____

Front Office registration number _____

Name & Surname of the grievance author _____

Phone number of the grievance author _____

Grievance Object (address or name of the object) _____

Subject-matter of the grievance _____

Grievance review instance _____

Grievance reviewer (Name & Surname) _____

The decision made as a result of the grievance review

When will the applicant be notified of the outcome of the hearing

_____

What actions were planned?

What actions were taken?

When will the applicant be notified of the actions _____

Signature and date of the responsible person _____

X. CONCLUSIONS AND RECOMMENDATIONS

A. Conclusion

305. Implementation of the proposed project activities is critically important for the VET sector development in the country. Field observation results and secondary sources of information have been used for the assessment of environmental impacts of the project activities.

306. This supplementary IEE report highlights potential environmental impacts associated with the development of the selected sites and recommends mitigation measures for each project pre-construction, construction implementation phase. All environmental impacts need to be mitigated according to the EMP and intuitional arrangements described in the report.

307. The project has been assigned environmental category B, in accordance with the ADB Safeguard Policy Statement. IEE report with the EMP is considered as sufficient environmental assessment of the project and a full EIA is not required.

308. The conducted study reveals that the expected environmental impacts have the site- specific and temporary character and are mainly confined with construction activities and some of them with operational phase, which are predictable and manageable. Possible negative impacts can be minimized or avoided by implementation of mitigation measures, which will be the contractor's responsibility during the construction phase thorough the development and implementation of site-specific EMPs, which will be prepared by the contractors and approved by PIU with endorsement of ADB team. Site-specific EMPs will be submitted and approved at least ten days prior to the start of the civil works. Safeguard measures must be clearly defined in the bidding and contract documents and supervised by environmental consultants.

B. Recommendations

(i) Safeguards related clauses, IEE and EMP should be integrated into the bidding documents;

(ii) Heals and safety issues, should be Included in contract provisions;

(iii) Contractor should commence the activities considering all safeguard related clauses which will be part of bidding document;

(iv) Site-specific EMPs, taking into account environmental and social safeguards issues and potential impacts on sensitive receptors and corresponding mitigation measures should be developed by contractor prior to the start of the works;

(v) Other specific plans, such as, emergency response plan, waste management plan, material management plan, traffic regulation plan, H&S management plan rehabilitation and restoration plan etc. should be developed by contractors before commencements of the civil works;

(vi) Possible impact on flora and fauna species and their habitats should be assessed prior to the construction in each project site;

(vii) Baseline measurements should be conducted prior to the construction according to the EMP;

(viii) Monthly parameters measurements and monitoring should be conducted by the contractor;

(ix) IEE must be reviewed and current EMP shall be updated in case of changes any important circumstances after having the final plans, to include any other potential environmental impact and mitigation measure if such will be applicable by changing the scope of the work; EMPs may need to be revised again during the construction phase to reflect all possible impact that was not anticipated during the pre-construction phase.

XI. ANNEX 1: ENVIRONMENTAL MONITORING PLAN

Monitoring Aspect	Monitoring Details	Timing/ Frequency	Institutional Responsibility		Costs
			Implementation	Supervision	
Construction Phase					
Noise and vibration	Ensure that noise and vibration level are in compliance with state standards and regulations	Throughout construction/ weekly instrumental measurement	Contractor	Architectural Design and Construction Supervision Firm PIU	Staff related cost / Monitoring costs
Ambient air (measuring CO, NO, SO2, PM- 10)	Ensure that air quality on the site is in compliance with state standards and regulations	Throughout construction	Contractor	Architectural Design and Construction Supervision Firm PIU	Staff related cost/ Monitoring costs
Construction Waste, soil and water contamination	Ensure that construction waste is disposed to the approved disposal site and metal scraps are disposed at a pre-selected location s; hazardous waste is stored and disposed according to the international and national standards and regulations; rivers are not contaminated	Throughout construction	Contractor state Relevant institutions	Architectural Design and Construction Supervision Firm PIU	Staff related cost/ Monitoring costs
Movement of	Ensure that the works are	Throughout	Contractor	Architectural	Staff related

vehicles and construction equipment	implemented according to the traffic regulation plan and vehicles movement scheme; no dust and traffic are generated caused by transpiration and damaged areas are reappeared	construction	Relevant state institutions PIU	Design and Construction Supervision Firm	cost/ Monitoring costs
ACM (Asbestos-Containing material)	Ensure that ACM is removed and disposed in accordance to international accepted standards	Throughout construction	Contractor	Architectural Design and Construction Supervision Firm PIU	Staff related cost
Excavation at construction site	Ensure that excavation is conducted without Damaging of underground facilities, erosion protection measures are implemented, and barriers	Throughout construction	Contractor	Architectural Design and Construction Supervision Firm	Staff related costs/monitoring costs
Temporary relocation of utility supplies	Ensure that the activities are performed carefully without damaging the utility supplies	Throughout construction	Contractor	Architectural Design and Construction Supervision Firm PIU	Staff related costs/monitoring costs
Flora and Fauna Species and their habitat	Ensure that detailed data on species is provided in Site-specific EMP, the works are conducted with minimum impacts on biodiversity; all permits are in place; planting is conducted in appropriate ratio to compensate damage and in	Throughout construction	Contractor	Architectural Design and Construction Supervision Firm PIU	Staff related costs/monitoring costs

Occupational health and safety	Ensure that the activities are conducted according to the plan; campsite is provided with toilets and the camp is equipped with all necessary health and safety related equipment, including first aid kits, snake venom drugs and bee venom antidotes; Covi-19 related	Throughout construction	Contractor	Architectural Design and Construction Supervision Firm PIU	Staf related f cost s
Restoration of construction site	Ensure that damages are repaired prior to leaving the area	Throughout construction	Contractor	Architectural Design and Construction Supervision Firm PIU	Staf related f cost s
Operational Phase					
Noise and vibration	Ensure that noise and vibration level are in compliance with state standards and regulations/instrumental	Throughout operational phase	Administration	Relevant state monitoring institutions	Operational costs Monitoring costs
Air pollution	Ensure that emission level are in compliance with state standards and regulations	Throughout operational phase	Administration	Relevant state monitoring institutions	Operational costs Monitoring costs
Toxic and hazardous waste materials	Ensure that waste disposal is conducted according to the corresponding standards by minimizing air and water pollution and in an	Throughout operational phase	Administration	Relevant state monitoring institutions	Operational costs Monitoring costs
Exhaust system operation	Ensure that proper ventilation systems are installed, which are in compliance to the	Throughout operational phase	Administration	Relevant state monitoring institutions	Operational costs Monitoring costs

	corresponding standards; machineries are equipped with appropriate filters and other necessary technical means				
Drinking water	Ensure that drinking water quality meets the requirements of technical regulation on drinking	Throughout operational phase	Administration	Relevant state institutions	Monitoring costs
Occupational Health and Safety issues	Ensure that all health and safety issues, are properly considered and documented	Throughout operational phase	Administration	Relevant state institutions	Monitoring costs

Source: Technical Assistance-9790 GEO.

XII. ANNEX 2: RAPID ENVIRONMENTAL ASSESSMENT (REA) CHECKLIST

Country/Project Title: Georgia, Modern Skills for Better Jobs Sector Development Program

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Siting Is the project area adjacent to or within any of the following environmentally sensitive areas?			
• Cultural heritage Site		X	
• Legally Protected Area		X	
• Wetland		X	
• Mangrove		X	
• Estuarine		X	
• Special area for protecting biodiversity		X	
B. Potential Environmental Impacts Will the project cause…			
• Impairment of historical/cultural areas		X	
• Disturbance to precious ecology	X		Considered a risk
• Alteration of surface water hydrology or waterways resulting in increased sediment in streams affected by increased soil erosion at construction site?		X	
• Deterioration of surface water quality due to silt runoff and sanitary waste from worker-based camps and chemicals used in construction?	X		Less but expected in urban areas
• Increased air pollution due to project construction and operation?	X		Considered a risk
• Noise and vibration due to project construction or operation?	X		Considered a risk
• Involuntary resettlement of people? (Physical displacement and/or economic displacement)		X	
• Disproportionate impacts on the poor, women and children, indigenous peoples or other vulnerable groups?		X	
• Poor sanitation and solid waste disposal in construction camps and work sites and possible transmission of communicable diseases from workers to local populations?		X	Less expected
• Creation of temporary breeding habits		X	
• Social conflicts if workers from other regions or countries are hired?		X	Less of a risk
• Large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation system)?		X	
• Risks of vulnerabilities related to occupational health and safety due to physical, chemical, biological and radiological hazards during project construction and operation?		X	
• Risks to community health and safety due to the transport, storage and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?	X		Considered a risk

• Community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?	X		Considered a risk
• Generation of solid waste and/or hazardous waste?	X		Considered a risk
• Use of chemicals	X		Considered a risk
• Generation of wastewater during construction or operation?	X		Considered a risk

XIII. ANNEX 3: Minutes of meeting

July 12, 2023

City Kharagauli, Kharagauli Municipality

Minutes of Meeting

MODERN SKILLS FOR BETTER JOBS SECTOR DEVELOPMENT PROGRAM

Subprogram 1

Project Public Consultation meeting

Project Public Consultation meeting for updated IEE, SDDR and Gender Issues

Meeting Report

On July 12, Construction Supervision Consultation Company “Industria” organized a public consultation meeting in Kharagauli public school #2. Teachers, parents and neighbors participated in the consultation. The names of those who attended the meeting have been compiled and are displayed herewith. The goal of consultation was to inform local population about the activities under the project, and to discuss Gender and social issues.

Nona Chichinadze gave a speech on project related issues, gender equality and clarified the ADB standpoint regarding gender issues; she also discussed the benefit to be derived by society, including women and girls.

Topics of the consultation:

- Improve quality and relevance of VET in priority economic sectors;
- Increase Access to, and inclusiveness of VET system;
- Gender related issues;
- The design properties in terms of gender, wheelchair users, arrangement of sex-disaggregated safe sanitary facilities (toilets);
- The sexual harassment /violence against women and girls.
- Grievance Redress Mechanism
- SDDR
- IEE

She held detailed discussion on mentioned topics, distributed awareness fliers among the participants.

Nona Chichinadze informed the participants about procedures and the importance of the Grievance Redress Mechanism, namely - In projects grievance resolution is viewed as a two-stage process. The first stage involves locally available means, such as discussing the concern with the Contractor, on site focal point from the Supervision Consultant / Contractor, or/and writing to local municipality for resolution of grievances on the spot. The second stage comprises grievance to be discussed and resolved

by Grievance Redress Commission (GRC), established within the PIU. Both written and verbal complaints shall be documented in official logbook

Salome Meparishvili briefly introduced planed works, she explained that according to the Environmental Assessment Code of Georgia, project does not require the Environmental Decision from the Ministry of Environmental Protection and Agriculture (MEPA). However, to ensure the SP's environmental and social safety, MOES is responsible for following the Asian Development Bank (ADB) safeguard policies. Therefore, she presented the ADB's social and environmental procedures and presented part of the IEE elaborated for this project. She presented the environmental, social, public relations, and labor-management measures described in the document. As an essential part of the IEE, she informed the attendees about potential environmental and social risks associated with this VET and mitigation measures to prevent or minimize those negative impacts.

She mentioned that during the soil removed from the area will be temporary stored on the site and used for backfilling purposes. According to the Waste Management Code of Georgia inert waste, during the construction work if remain any amount of subsoil can be used for backfilling activities according to written agreement with local authority. According to the new design, there is not necessary tree cutting.

The meeting attendees expressed interest towards the above-referred topics and detailed discussion was held to disclose more long-term benefits of developing competences in gender-related issues.

The conversation also touched on the layout and capacity of rooms and laboratories. Project beneficiaries noted that new work environment would be an additional source of motivation for them.

At the end of the meeting, representatives revealed their positive attitude towards project implementation and expressed their hope that works will be completed in due time.

Participants: 25; Male-4

Questions and Remarks:	Answers and Comments:
When will the tender be announced?	The tender will be announced in Autumn, 2023
Will the local population be able to participate in construction activities?	It Depends on the construction organization; local residents are often employed

Photo materials and registration list of meeting attendances are hereby enclosed.

Minutes was prepared by Nona Chichinadze –" Industria" Social and Gender specialist and Salome
Meparishvili Environmental specialist.

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თარიღი 12.07.2023.

შეხვედრაზე დამსწრეთა რეგისტრაციის ჟურნალი

	სახელი, გვარი	ორგანიზაცია/მოქალაქე	საკონტაქტო ინფორმაცია/ტელეფონის ნომერი	ხელმოწერა
1.	[illegible]	[illegible]	537532478	[signature]
2.	[illegible]	№2 საჯარო სკოლა	577-67-13-55	[signature]
3.	[illegible]	№2 საჯარო სკოლა	5776712-38	[signature]
4.	[illegible]	[illegible]	5-77-977-970	[signature]
5.	[illegible]	[illegible]	593664403	[signature]
6.	[illegible]	[illegible]	591346936	[signature]
7.	[illegible]	[illegible]	577607507	[signature]
8.	[illegible]	№2 საჯარო სკოლა	577671253	[signature]
9.	[illegible]	№2 საჯარო სკოლა	59350 0022	[signature]
10.	[illegible]	[illegible]	599-20-18-78	[signature]
11.	[illegible]	№2 საჯარო სკოლა [illegible]	577 6712 40	[signature]
12.	[illegible]	№2 საჯარო სკოლა [illegible]	577-19-43-65	[signature]
13.	[illegible]	№2 საჯარო სკოლა [illegible]	595519908	[signature]
14.	[illegible]	№2 საჯარო სკოლა [illegible]	577671260	[signature]
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17.	[illegible]	№2 საჯარო სკოლა	551-24-08-01	[signature]
	[illegible]	№2 საჯარო სკოლა	591.90.44.13.	[signature]
19.	[illegible]	[illegible]	591 81 20 15	[signature]
20.	[illegible]	№2 საჯ. სკოლა	577671269	[signature]
21.	[illegible]	№2 საჯ. სკოლა [illegible]	577671614	[signature]
22.	[illegible]	№2 საჯარო სკოლა [illegible]	577-67-12-52	[signature]
23.	[illegible]	№2 საჯარო სკოლა [illegible]	595-45-67-26	[signature]
24.	[illegible]	№2 საჯ. სკოლა [illegible]	577 08-23-40	[signature]
25.	[illegible]	[illegible]	593356580	[signature]
26.				
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