

Rehabilitation of Public Recreation Zones and Touristic Routes In Telavi, Telavi Municipality

Municipal Development Fund of Georgia
Ministry of Regional Development & Infrastructure, Government of Georgia

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ABBREVIATIONS

ADB	Asian Development Bank
EARF	Environmental Assessment and Review Framework
EHS	Environmental, Health and Safety
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
GoG	Government of Georgia
MDF	Municipal Development Fund of Georgia
MoEPA	Ministry of Environmental Protection and Agriculture of Georgia
MoESD	Ministry of Economy and Sustainable Development of Georgia
NACHPG	National Agency for Cultural Heritage Preservation of Georgia
SSEMP	Site Specific Environmental Management Plan

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EXECUTIVE SUMMARY

1. Since November 2016, Asian Development Bank (ADB) has supported the Government of Georgia (GoG) to mainstream an integrated and participatory approach to urban development by improving strategic planning of selected urban area clusters to achieve a more balanced regional development by preparing Integrated Urban Action Plans (IUAPs). Building on this, the government has prioritized crucial urban investments for ADB to take forward through feasibility studies and safeguards due diligence. These include integrated solutions that bring co-benefits to the citizens in the development of the urban clusters including water supply, sewerage and sanitation (including off-network solutions), urban transport and mobility (including non-motorized and public transport), solid waste management, economic corridors, cultural and historical heritage conservation, flood control and drainage, urban safety and resilience, among others.
2. To expedite balanced regional development, support for basic urban services and transport have been prioritized, particularly in small towns and regional cities that are potential hubs for tourism, agribusiness, and regional trade as key drivers of economic growth. Governance and capacity building will need to be integrated into the ensuing projects to achieve more robust results and ensure operational and financial sustainability of infrastructure projects.
3. The government has proposed to process the Livable Cities Investment Program (LCIP) to improve urban and tourism infrastructure and services across Georgia. LCIP will help improve the livability of the urban area clusters through interlinked outputs: (i) improved adequacy and efficiency of urban infrastructure and services, (ii) improved accessibility, connectivity and attractiveness of regional tourism clusters, and (iii) enhanced institutional capacity for implementing and managing urban infrastructure and services, (iv) improved access to quality pre-school infrastructure, improved environment: new playgrounds increasing gross motor skills of children, safe building - considering fire alarm and safety systems, clean and updated sanitary infrastructure including water closet and kitchen; (v) improved planning of the kindergarten building; increased space per child and per teacher; energy efficient kindergarten buildings; (vi) improvement of educational and working conditions for children and teachers in kindergarten; (vii) Improved access to inclusive child-friendly quality education; (viii) Social impact – increased income of population during the implementation (employment of workers), and after the construction;
4. Development of Tourist Routes for Seven Historical Hills In Telavi City is one of the project, implemented under the Livable Cities Investment Program.
5. The project area is located in the central part of Telavi City and includes several sites such as “Zuzumbo Hill”, “Dabakhnevi Hill” “Kadori Hill”, “Ghvtaeba Hill”, “Concrete Castle”, “Pikri Hill” “Gigo Hill”, central square, Saakadze Square, Cholokashvili Street, Erekle II Avenue and Nadikvari Street. The project aims at development of a new tourist route and public

recreational spaces, tourist facilities and their infrastructure in the historical part of Telavi, which will have a positive impact on the economic development of the city due to increasing the number of local and foreign visitors.

6. The project will be implemented on the land plot owned by Telavi Municipal Government. The total area of land allocated for project activities is 94 000 m². There are two state-owned buildings the rehabilitation and reconstruction of which are to be carried out within the project: Telavi State Vazha Pshavela Drama Theater and Telavi Elene Akhvlediani Children's Art School. The buildings are located on Erekle II Avenue, in central part of Telavi City, in well-developed urban environment.
7. The project will be implemented on the municipal owned territories. Therefore, no land acquisition and involuntary resettlement is required.
8. Reconstruction, restoration and rehabilitation of several buildings and public parks, arrangement of pedestrian pathways and bridge connecting historical hills and improvement of streets in central and historical parts of Telavi is envisaged by the project design. The project includes:
 - I. Arrangement of the pedestrian pathways and bridge connecting Zuzumbo and Dabaknebi hills and arrangement of the parking lots on Zuzumbo hill;
 - II. Rehabilitation of Givi Chokheli Memorial and Arrangement of footpath on Gigo hill;
 - III. Elene Akhvlediani School's internal Rehabilitation;
 - IV. Rehabilitation of the Vazha Pshavela Theater basement;
 - V. Rehabilitation of the public park near the Vazha Pshavela Theater in Telavi;
 - VI. Rehabilitation of Erekle II Street and Square in Telavi;
 - VII. Arrangement of paving on the streets adjacent to Cholokashvili and Kiknadze streets.
9. According to the legislative provisions, rules, and regulations in Georgia, project activities are not included in Annex 1 and 2 of Environmental Assessment Code of Georgia do not require environmental screening, conducting of an environmental impact assessment (EIA) or seek environmental clearance from the government.
10. The project envisages rehabilitation of Erekle II, Cholokashvili and Kiknadze streets are foreseen, where a number of cultural heritage monuments and objects are located. Also, there will be arranged a fountain to the west side of Batoni's Tsikhe which is an architectural monument. Moreover, rehabilitation of cultural heritage site - Telavi Elene Akhvlediani Children's Art School is planned. As project plans interventions within the cultural heritage monuments and will be implemented in the areas having high historical and cultural importance, the project triggers ADB SPS environmental policy principle on physical cultural resources (PCRs). According to the requirements of Georgian legislation the project design shall be agreed with the National Agency for Cultural Heritage Preservation of Georgia (NACHP). Therefore, the project design has been agreed with the Agency for Cultural Heritage Preservation of Georgia and confirmation letter (dated 30.10.2020 N12/3800) on approval of works to be undertaken on Telavi Elene Akhvlediani Children's Art School has

been obtained. NACHP has reviewed the revised sketch design for indoor rehabilitation works for Elene Akhvediani Art School. As a result, it was noted that rehabilitation works of the building can be executed based on the documents submitted. Clearing of the lower floor off earth may identify new circumstances which shall be reflected under design documents during the construction stage. NACHP has also reviewed detailed design of Rehabilitation of Public Recreation Zones and Touristic Routes In Telavi and provided confirmation letter on December 19, 2019 for the envisaged works with the following recommendations to be considered during the construction phase:

- Zuzumbo Hill, over which the car parking is to be arranged (Cadastral Code 53.20.39.192 - XY 41.916982, 45.451964), represents one of the ancient historical districts of Telavi Town, which has drawn the attention of archeologists since the 60-70-ies of the XX century. The former dwelling area (G. Lomtadze, Ts. Chikoidze) and the graveyard (N. Tushabramishvili) of late bronze-early Iron Ages have been identified there. Hence, parking area shall be explored through test archeological trenches prior to construction commencement. Archeological excavation-documenting shall be conducted thoroughly, in case the cultural layers are identified.
 - Zuzumbo and Dabakhnebi Connecting Bridge (Cadastral Code: 53.20.39.155, 53.20.46.379 XY 41.916982, 45.451964). It undergoes construction over the site of two historical districts. Respectively, earthwork shall be supervised by an Archeologist.
 - The pedestrian path is to be placed on top of Dabakhnebi Hill (53.20.46.379 XY 41.920877, 45.461071), representing the archeological site. The survey-archeological works dated 2018-2019, identified medieval aged structures (N. Tushabramishvili) that have been studied partially. Since the path passes directly next to archeological objects, it is significant these objects to be studied archeologically, proper preservation to be ensured and visual appearance to be regulated in order tourist potential of the town to be increased. In the course of the path arranging, the earthwork shall be supervised by an archeologist.
 - The Fountain at Erekle II Square (Cadastral Code: 53.20.37.499 XY 41.918496, 45.473719). The area is located in direct vicinity of "Batonis Tsikhe" Complex, which in its turn represents the architectural monument. Therefore, area shall be explored through test archeological trenches prior to construction commencement, and in case of cultural layers identification, it shall be thoroughly studied archeologically.
11. All projects funded by ADB must comply with ADB Safeguard Policy Statement, 2009. ADB SPS aims to help developing member countries address environmental and social risks in development projects and minimize and mitigate, if not avoid, adverse project impacts on people and the environment. The SPS applies to all ADB-supported projects and ADB works with borrowers to put policy principles and requirements into practice through project review and supervision, and capacity development support. The SPS also provides a platform for participation by affected people and other stakeholders in project design and

implementation.

12. ADB's environmental safeguards aim to ensure the environmental soundness and sustainability of projects, and to support the integration of environmental considerations into the project decision-making process. The ADB SPS requires borrowers to identify project impacts and assess their significance; examine alternatives; and prepare, implement, and monitor environmental management plans. The ADB SPS requires borrowers to consult people likely to be affected by the project and disclose relevant information in a timely manner and in a form and in languages understandable to those being consulted. Assessment reports are required depending on the project's impact.
13. The Livable Cities Investment Program (LCIP) has been classified as Category B per ADB SPS thus an initial environmental examination (IEE) is required for activities to be considered under the project. The Environmental assessment for the presented IEE report was carried out based on desk review of project design and other available materials describing baseline environment, as well as field studies and consultations with specialists and stakeholders from the project area.
14. According to results of environmental assessment carried out for the project the majority of anticipated environmental risks and impacts are likely to be of minor significance and limited to construction activities in urban area. Potential impacts expected from the projects are few in number, generally site-specific, largely reversible, limited to project site, and readily addressed through mitigation measures.
15. This IEE includes a generic environmental management plan (EMP) and environmental monitoring plan prepared based on considerations from the initial environmental examination of the preliminary design. **The presented IEE might be updated and additional requirements might be provided.** The contractor will prepare site-specific EMP (SSEMP) before civil works commencement. No works will be allowed until the project implementation unit has reviewed and issued a clearance to proceed the construction activities.

Consultations

16. Due to the circumstances occurring throughout the world related to the virus outbreak (COVID 19) and forced social distancing, no field visits were possible during the preparation stage of the IEE. Thus, in order to achieve the IEE objective, the team conducted online consultations with the representatives of Telavi Municipality for obtaining relevant information and carried out desktop survey. Representatives of city hall of Telavi municipality visited the project site, took pictures reflecting the existing situation that were provided along the additional information. Namely, the team of consultants reviewed the project background documents, analyzed the relevant legal laws and technical standards, and undertook online meetings with people who possessed the information, additional to the received document, required for sound analyses of the situation and drafting of the document.
17. As part of the preparation of this IEE, consultations with stakeholders were undertaken to solicit views and feedback on the project. Due to limitations of face-to-face interactions

during the COVID-19 pandemic, initial public consultation meetings were conducted on 10 and 15 of June, using Zoom and Google Meeting. Minutes of the meeting are attached to this IEE report. The consultations focused on informing the stakeholders on the scope of the project activities, potential environmental impacts as a result of the proposed activities, along with the required measures that will be implemented to ensure any potential impacts are limited to the site and do not impact the communities. Any comments and/or concerns raised by these stakeholders were reflected in the minutes.

18. To ensure stakeholders are informed about the project, the environmental safeguard documents such as this IEE and its update, and semi-annual environmental monitoring reports (SAEMRs) will be made available to the public in a timely manner through disclosure on ADB and MDF websites. The IEE and SAEMRs will be available in English and local language understandable by stakeholders. If necessary, the summaries of the IEE, and SAEMRs will be posted on public notice boards for the benefit of the local communities in and adjacent to the worksites. A grievance redress mechanism (GRM) is described within the IEE to ensure any public grievances are addressed quickly.
19. IEE, including EMP will be included in the bidding documents and will form an integral part of contractors' contract document. Any change that will have contractual implications have to be communicated to the bidders (if still under bidding process) or through contract variation (if already awarded).
20. The executing agency (EA) for this project is the Ministry of Regional Development and Infrastructure of Georgia while the implementing agency (IA) is the Municipal Development Fund (LEPL under the Ministry of Regional Development and Infrastructure of Georgia). The IA will ensure environmental safeguards requirements are considered in the bid and contract documents, project budget, and over-all implementation of the construction works. During the construction phase, the IA will have the overall responsibility for safeguards compliance at project sites, addressing community-level complaints if any, and ensuring contractors perform mitigation measures per approved SSEMP. The IA will ensure non-conformances with safeguards requirements are corrected in a timely manner.
21. The IA will be supported by supervision consultant. In addition, the Contractor will be required to engage a full time Environment, Health and Safety (EHS) Staff that will remain engaged until the completion of all works and will ensure implementation of the SSEMP(s) in true letter and spirit. Construction company will be responsible for envisaging the implementation cost of EMP, including the proposed mitigation measures (and additional activities (if any), surveys (if required by the IA and IEE) in his project budget. Implementation of IEE/EMP is obligatory for contractor. Contractor shall be aware that the IEE will be updated.
22. The following activities/items will be covered by the Environmental management costs: the baseline and monthly parametric measurements to be conducted by the contractor, remunerations of the SC' and contractor's environmental specialists and occupational and community H&S specialist to be hired by the contractor, construction dust and noise barriers (if needed), anti-COVID measures, waste management.

23. Quarterly environmental monitoring data/reports will be incorporated in the project implementation progress reports to be shared with ADB and such monthly reports will be consolidated into semi-annual environmental monitoring reports and submitted to ADB for review, clearance, and disclosure on its website.

Conclusion and Recommendations

24. The proposed project was assessed against the laws of Georgia and ADB's safeguard. At the stage of the document preparation, possible environmental impacts were identified and relevant mitigation measures were developed.
25. Temporary disturbance of local population is expected during the construction works, which shall be connected with the demolition and construction activities and transportation of the construction materials and equipment. In other cases, the impact on the social environment shall be positive, because temporary employment of the local population is expected;
26. During the functioning of the pathways, public parks and rehabilitated buildings and streets the negative impact on physical environment and biological systems is not expected;
27. Only positive impact on the social system is expected during the functioning of the rehabilitated infrastructure. The Project is expected to have long-term positive impact on the population of city Telavi, especially young people and working parents who will get access to well planned, high quality service.
28. The Construction Contractor is obliged to conclude the contract only with the companies holding the license to extract inert materials. If the company decides to extract the inert materials itself and opens a quarry, it is obliged to obtain the license from the National Agency of Mines.
29. Technical characteristics and decision about dumpsites and quarries have not been made currently. Detail characteristics of these infrastructures will be provided in the site specific environmental management plans.

Recommendations

30. The EMP, its mitigation and monitoring programs, contained herewith will be included within the Bidding documents for project works for all Project components. The Bid documents state that the Contractor will be responsible for the implementation of the requirements of the EMP through his own SSEMP which will adopt all of the conditions of the EMP and add site specific elements that are not currently known, such as the Contractors borrow pit locations. This ensures that all potential bidders are aware of the environmental requirements of the Project and its associated environmental costs.
31. The EMP and all its requirements will then be added to the Contractors Contract, thereby making implementation of the EMP a legal requirement according to the Contract. He will then prepare his SSEMP, which will be approved and monitored by the Engineer. Should the Engineer note any non-conformance with the SSEMP (and the EMP) the Contractor can be held liable for breach of the contractual obligations of the EMP. To ensure

compliance with the SSEMP the Contractor should employ an Environmental Manager to monitor and report Project activities throughout the Project Construction phase.

32. The management of the Construction Contractor will provide periodic training and testing regarding the observance of the environmental protection and job safety rules by the personnel engaged in the project implementation activities.
33. A strict control over the observance of the safety requirements and hygienic norms by the personnel will be introduced.
34. Before starting the construction works, the contractor shall conduct the following surveys: noise and vibration, soil contamination, air pollution and flora and fauna species to identify baseline situation;
35. Prior to the commencement of the construction works, the Construction Contractor is obliged to prepare the following environmental plans: (i) Site-specific environmental Management plan; (ii) Noise and vibration management plan; (iii) Traffic management plan; (iv) Waste management plan; (iv) Health and safety management plan and anti COVID-19 measures, (v) Emergency response plan; (vi) Camp site management plan. Inventory of trees shall conducted if required. Technical report of the stationary source of harmful substances emitted into atmospheric air shall be prepared if required.
36. The Construction Contractor must undertake all mitigation measures to minimize the noise, vibration and other air emissions. In order to reduce the impact of noise, vibration emissions on the sensitive receptors.
37. In the project operation phase, periodical monitoring of noise, vibration level and air quality is necessary. If the noise, vibration and air pollution levels increase against the admissible standards, it will be necessary to develop and implement additional mitigation measures.

Commented [A1]: needs to be approved by ADB

A. INTRODUCTION

A.1. General

38. This section of the report: a) provides the background to the Livable Cities Investment Program (LCIP), b) summarizes the Project need and objectives, c) outlines the purpose of the IEE, d) describes the Project Category and c) describes the scope of the IEE and the structure of the report.

A.2. Background

39. The Asian Development Bank (ADB) and the Government of Georgia (GoG) reoriented urban sector operations to provide integrated and programmatic solutions for developing Livable cities in Georgia that are economically competitive, socially inclusive, and environmentally resilient¹. Since November 2016, ADB has supported the government to mainstream an integrated and participatory approach to urban development by improving strategic planning of selected urban area clusters to achieve a more balanced regional development by preparing Integrated Urban Action Plans (IUAPs)². Building on this, the government has prioritized crucial urban investments for ADB to take forward through feasibility studies and safeguards due diligence. These include integrated solutions that bring co-benefits to the citizens in the development of the urban clusters including water supply, sewerage and sanitation (including off-network solutions), urban transport and mobility (including non-motorized and public transport), solid waste management, economic corridors, cultural and historical heritage conservation, flood control and drainage, kindergartens, sport complexes, urban safety and resilience, among others.
40. To expedite balanced regional development, support for basic urban services and transport have been prioritized, particularly in small towns and regional cities that are potential hubs for tourism, agribusiness, and regional trade as key drivers of economic growth. Governance and capacity building will need to be integrated into the ensuing projects to achieve more robust results and ensure operational and financial sustainability of infrastructure projects³.
41. The government has proposed to process the Livable Cities Investment Program (LCIP)⁴ to improve urban and tourism infrastructure and services across Georgia. LCIP will help improve the livability of the urban area clusters interlinked outputs: (i) improved adequacy

¹ADB's Urban Operational Plan 2012-2020 fosters the growth of Competitive, Inclusive, and Green Cities to improve the performance of cities on the Economic, Equity, and Environment (3Es) fronts. It focuses on 3 innovative approaches to guide the development of liveable cities, which is a long-term process, achieved best through integrated planning and implementation of investment.

² <https://www.adb.org/sites/default/files/project-documents/49367/49367-001-tcr-en.pdf>

³ <https://www.adb.org/sites/default/files/project-documents/49367/49367-001-tcr-en.pdf>

⁴ http://mdf.org.ge/storage/assets/file/documents%202020/%E1%83%9C%E1%83%98%E1%83%9C%E1%83%9D%202020/%E1%83%93%E1%83%9D%E1%83%99%E1%83%A3%E1%83%9B%E1%83%94%E1%83%9C%E1%83%A2%E1%83%94%E1%83%91%E1%83%98%20/30_06/Draft%20EARF%20LCIP-%20clean%20version-final.pdf

and efficiency of urban infrastructure and services, (ii) improved accessibility, connectivity and attractiveness of regional tourism clusters, and (iii) enhanced institutional capacity for implementing and managing urban infrastructure and services, (iv) improved access to quality pre-school infrastructure, improved environment: new playgrounds increasing gross motor skills of children, safe building - considering fire alarm and safety systems, clean and updated sanitary infrastructure including water closet and kitchen; (v) improved planning of the kindergarten building; increased space per child and per teacher; energy efficient kindergarten buildings; (vi) improvement of educational and working conditions for children and teachers in kindergarten; (vii) Improved access to inclusive child-friendly quality education; (viii) social impact – increased income of population during the implementation (employment of workers), and after the construction; (ix) implemented a healthy lifestyle for the population, which will also reduce youth drug addiction and alcoholism. (x) new sports complexes will lead to the success of the athletes, which will be especially important for the young people living in regions, as the representatives of the communities often have significant success in the international arena in a various types of sport, including water polo, synchronized swimming, etc.

42. Reconstruction of Public Recreation Zones and Touristic Routes in Telavi city is one of the project, implemented under the Livable Cities Investment Program.

A.3. Purpose of the Report

43. The Initial Environmental Examination (IEE) of Reconstruction of Public Recreation Zones and Touristic Routes in Telavi, Telavi Municipality (Kakheti region) is conducted as part of preparation of the proposed the Livable Cities Investment Program (LCIP) and Finance Facility to meet requirements of ADB's Guidelines and Safeguard Policy Statement (SPS 2009), as well as to comply with environmental legislation of the Georgia. The IEE covers all proposed physical activities under the project.
44. The present IEE report Reconstruction of Public Recreation Zones and Touristic Routes in Telavi city municipality with the aim to:
 - describe the existing socio-environmental conditions within the Project area;
 - identify potential direct, indirect, cumulative, and induced environmental impacts and risks that may emerge due to Project implementation;
 - analyze Project's alternatives of location, design and technological solutions, including "no project" option;
 - develop Environmental Management Plan (EMP) that will include proposed mitigation measures, monitoring program and reporting requirements, institutional and organizational arrangements, capacity development and training provisions;
 - describe grievance redress procedures under the Project.
 - To provide stakeholders and general public with the information of potential environmental impacts of the project and mitigation measures to be implemented

and reflection of public opinion. To be discussed on the public consultation meetings for reflection of the stakeholders and general public opinion.

A.4. Category of Project

45. A Rapid Environmental Assessment checklist (see attachment 3), as well as review of their location vicinities through Google Earth and other GIS services were used to assign the category of the Project. Based on the existing ADB Environmental Safeguards Policy (2009), this Project falls under ADB's project Category B. According to ADB SPS 2009 proposed project can be classified as Category B due to the following reasons:
 - adverse environmental impacts (such as water resource problems, air pollution, noise and dust, traffic disturbance, water contamination, degradation of cultural heritage), 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.
46. An initial environmental examination is required for category B projects. A category is assigned to a project by its most sensitive component, therefore, all of the outputs and activities to be undertaken under the Project fall under Category B as well.
47. As part of the preparation of this IEE, consultations with stakeholders were undertaken to solicit views and feedback on the project. Due to limitations of face-to-face interactions during the COVID-19 pandemic, initial public consultation meetings were conducted on 10 and 15 of June, using Zoom and Google Meeting. Minutes of the meeting are attached to this IEE report. The consultations focused on informing the stakeholders on the scope of the project activities, potential environmental impacts as a result of the proposed activities, along with the required measures that will be implemented to ensure any potential impacts are limited to the site and do not impact the communities. Any comments and/or concerns raised by these stakeholders were reflected in the minutes.

A.5. Project Proponent

48. The Project proponent and borrower is the Government of Georgia acting through the Ministry of Finance of Georgia. Ministry of Regional Development and Infrastructure of Georgia is executing agency of the project, while Municipal Development Fund (LEPL under the Ministry of Regional Development and Infrastructure of Georgia) acts as implementing agency. MDF will establish a Project Management Unit and will be supported by the supervision consultants MDF will procure the civil works under contract arrangement, undertake contract supervision and make payments to the contractors.

A.6. Nature, size and location of the Project

49. Reconstruction of Public Recreation Zones and Touristic Routes in Telavi, is planned and the location is confirmed, which is the more convenient taking into consideration the existing infrastructure of the district, transport links, etc.
50. Reconstruction of Public Recreation Zones and Touristic Routes in Telavi, seems reasonable because it is located in the residential area and appropriate because in the existing plot there is enough space to arrange tourist routes and public recreational spaces, tourist facilities and their infrastructure. The total area of land allocated for project activities is 94 000 m².
51. The project envisages rehabilitation of Erekle II, Cholokashvili and Kiknadze streets are foreseen, where a number of cultural heritage monuments and objects are located. Also, there will be arranged a fountain to the west side of Batonis Tsikhe which is an architectural monument. Moreover, rehabilitation of cultural heritage site - Telavi Elene Akhvlediani Children's Art School is planned. As project plans interventions within the cultural heritage monuments and will be implemented in the areas having high historical and cultural importance, the project triggers ADB SPS environmental policy principle on physical cultural resources (PCRs). According to the requirements of Georgian legislation the project design shall be agreed with the National Agency for Cultural Heritage Preservation of Georgia (NACHP). Therefore, the project design has been agreed with the Agency for Cultural Heritage Preservation of Georgia and confirmation letter (dated 30.10.2020 N12/3800) on approval of works to be undertaken on Telavi Elene Akhvlediani Children's Art School has been obtained. NACHP has reviewed the revised sketch design for indoor rehabilitation works for Elene Akhvlediani Art School. As a result, it was noted that rehabilitation works of the building can be executed based on the documents submitted. Clearing of the lower floor off earth may identify new circumstances which shall be reflected under design documents during the construction stage. NACHP has also reviewed detailed design of Rehabilitation of Public Recreation Zones and Touristic Routes in Telavi and provided confirmation letter on December 19, 2019 for the envisaged works with the recommendations to be considered during the construction phase.
52. All works envisaged by the project will be implemented within the land plots registered as state or municipal property. The pedestrian trails envisaged by the project will be arranged along existing paths.

A.7. IEE Boundaries

53. For the purpose of the IEE, physical area considered as potentially being affected by the project in city Telavi, include:
 - Areas of direct impacts due to construction activities and their vicinity, including:
 - construction sites;

- access roads along construction site;
- dumpsite for construction and household wastes;
- borrow pits used as material sources;
- any other sites to be used by contractor, such as sites for labor camp, concrete batching plant, temporary material stockpiling and storage areas, etc.
- Areas of indirect impacts, including:
 - all adjacent lands potentially subject to pollution with dust generated by construction activities.
- Prior to start of construction works, the SEMP will include other sites that may be used for the project such as waste dumps, concrete production facilities, labor camp(s), etc.

A.8. Methodology applied

54. This IEE has been prepared by TRTA (Transaction Technical Assistance) for the borrower, in this case the Government of Georgia, according to the ADB requirements for the LCIP. The methodology to undertake and complete a IEE included a combination of methods and data collection tools. In particular, the IEE was prepared based on the results of: (a) review of background documents and information available on public domain; (b) online meetings with representatives Telavi Municipality, consultants, design Institute and other stakeholders; (c) review of technical standards and norms; (d) analysis of the baseline information and planned construction activities in order to identify potential impact, measure their significance and identify mitigation measures.

A.9. Structure of the report

55. The report is organized to comply with ADB Safeguard Policies (2009) as follows:
 - **Section A: Introduction** – The section in hand provides the introductory information for the Project.
 - **Section B: Legal, Policy and Administrative Framework** - This section presents an overview of the policy/legislative framework as well as the environmental assessment guidelines of Georgia that apply to the proposed project. The section also identifies relevant Asian Development Bank Safeguard Policies that will apply.
 - **Section C: Description of the Project** – Section C describes the Project and the need for the Project. A detailed scope of works is also provided indicating the type of engineering works required.
 - **Section D: Analyses of Alternatives** – This section discuss various Project alternatives including the ``no project`` option.

- **Section E: Description of the Environment** – This section of the report discusses the regional and local environmental baseline conditions.
- **Section F: Anticipated Environmental Impacts and Mitigation Measures** – Section F outlines the potential environmental impacts and proposes mitigation measures to manage the impacts.
- **Section G: Information Disclosure, Consultations and Participation** - Section G provides a summary of all of the stakeholder consultation activities undertaken.
- **Section H: Grievance Redress Mechanism** – A grievance redress mechanism for project affected persons is also provided along with information regarding the disclosure process.
- **Section I: Environmental Management Plan & Institutional Requirements** – This section provides the Environmental Management Plan and Environmental Monitoring Plan for the design, construction and operational phases of the Project.
- **Section K: Conclusions and Recommendations** – The final section of the report provides the report conclusions and any necessary recommendations.

B. LEGAL AND ADMINISTRATIVE FRAMEWORK

56. The preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities should be carried out in compliance with all applicable laws and regulations of the Borrower relating to environment, health and safety and the Environmental Safeguards as set out in ADB's Safeguard Policy Statement 2009.
57. This section discusses the national and local legal and institutional framework within which the environmental assessment is carried out. It also identifies project-relevant international environmental agreements to which the country is a party.

B.1. National Legislation

58. Environmental legislation of Georgia comprises the Constitution, environmental laws, international agreements, by-laws, presidential decrees, ministerial orders, instructions, and regulations. Along with the national regulations, Georgia is signatory to a number of international conventions, including those related to environmental protection.
59. The Program will be implemented in compliance with the national regulations and in line with the ABD SPS 2009 requirements. Therefore, more stringent requirements of the two are applicable. 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.
60. A Table 1 below presents a list of Georgia's environmental legislation as it pertains to the proposed program.

Table 1. List of laws relevant to environmental protection

Framework Legislation	
1995	Constitution Law of Georgia (as amended 29.06.2020) Reg. No - 010.010.000.01.001.000.116
1996	Law of Georgia on Environmental Protection (as amended 28.07.2020) Reg. No - 360.000.000.05.001.000.184
Permitting Legislation	
2005	Law of Georgia on Licensing and Permitting (as amended 17.07.2020)
Specific Environmental Laws	
1994	Law of Georgia on Soil Protection (as amended 15.07.2020) Reg. No - 370.010.000.05.001.000.080
1996	Law of Georgia on System of Protected Areas (as amended 16.09.2020) Reg. No - 360.050.000.05.001.000.127
2007	Law of Georgia on Status of the Protected Areas (as amended 15.07.2020) Reg. No - 360.050.000.05.001.003.060

Framework Legislation	
2014	Waste Management Code of Georgia (as amended 15.07.2020) Reg. No - 360160000.05.001.017608
2017	Environmental Assessment Code of Georgia Reg. No - 360160000.05.001.018492
1996	Law of Georgia on Subsoils (as amended 15.07.2020) Reg. No - 380.000.000.05.001.000.140
1997	Law of Georgia on Wildlife (as amended 15.07.2020) Reg. No - 410.000.000.05.001.000.186
1997	Law of Georgia on Water (as amended 15.07.2020) Reg. No - 400.000.000.05.001.000.253
1997	Law on Transit and Import of Waste into and out of the Territory of Georgia (as amended 14.12.2017) Reg. No - 300230000.05.001.016218
1998	Law of Georgia on Pesticides and Agrochemicals (as amended 05.07.2018) Reg. No - 340120000.05.001.016723
1999	Law of Georgia on Ambient Air Protection (as amended 15.07.2020) Reg. No - 420.000.000.05.001.000.595
2020	Forest Code of Georgia (Reg. No - 390000000.05.001.019838
2003	Law of Georgia on Red List and Red Data Book of Georgia (as amended 15.07.2020) Reg. No - 360.060.000.05.001.001.297
Relevant Laws	
2007	Law of Georgia on Public Health (as amended 29.12.2020) Reg. No - 470.000.000.05.001.002.920
2005	Law of Georgia on Fire Protection and Safety (as amended 23.03.2017) Reg. No - 140.060.000.05.001.000.355
2002	on Regulation and Engineering Protection of Coasts of Sea, Water Reservoirs and Rivers of Georgia (as amended 11.03.2011) Reg. No - 330.130.000.11.116.005.130
2014	Technical Regulations on Drinking Water standard. Approved by the Government decree № 58 Reg. No- 300160070.10.003.017676
2014	Environmental Technical Regulations. Approved by the Government decree № 17 (as amended 30.08.2019) Reg. No- 300160070.10.003.017608

61. Summaries of the listed documents are given below:

1. The basic legal document is “**The Constitution of Georgia**”, which was adopted in 1995. While the Constitution of Georgia does not directly address environmental matters, it does lay down the legal framework that guarantees environmental protection and public access to information with regard to environmental conditions.

2. Article 29, Part 1 states that “ everyone has the right to live in a healthy environment, enjoy the natural environment and public space. Everyone has the right to care for the protection of the environment. The right to participate in the adoption of decisions related to the environment shall be ensured by law. Everyone has the right to receive full information about the state of the environment in a timely manner. .” Part 2 of Article 29 states: “Environmental protection and the rational use of natural resources shall be ensured by law, taking into account the interests of current and future generations”.
3. Article 18, Part 2 states that “Everyone has the right to be familiarized with information about him/her, or other information, or an official document that exists in public institutions in accordance with the procedures established by law, unless this information or document contains commercial or professional secrets, or is acknowledged as a state secret by law or in accordance with the procedures established by law as necessary in a democratic society to ensure national security or public safety or to protect the interests of legal proceedings.
4. **Environmental Assessment Code (EAC)** of Georgia was adopted in June 2017 and entered into force on January 2018. The new Code replaced the law on Environmental Impact Permit and Ecological Expertise. The Environmental Assessment Code sets up regulations and procedures for Environmental Impact Assessment, Strategic Environmental Assessment, Trans-boundary Environmental Assessment, Public Participation and Expertise in the Decision-Making Process. The activities provided by Annex I to the Code shall be subject to an EIA. The activities provided for by Annex II to the Code may be made subject to an EIA on the basis of a screening decision made in accordance with the screening procedure defined in Article 7 of the Code. (Article 5 of Chapter 2). (Article 5 of Chapter 2).
5. **The Law of Georgia on Environment Protection (1996)** regulates the legal relations between the state establishments and physical or legal entities in the field of environmental protection and the use of natural resources through Georgia, including its of territorial waters, air space, continental shelf and special economic zones. The Law defines main environmental principles, rights and obligations of citizens in the field of environmental protection. The law establishes requirements for environmental planning and reporting, economic framework of the environmental protection (taxes, ecological insurance, economic incentives, environmental audit). The law provides framework for environmental management, standards, , environmental impact assessment.; it describes the main requirements for waste management, protection of natural ecosystems including endangered species, development of protected areas system, reduction of the pollution through determining the maximum permissible norms of the emission of harmful substances.
6. **The Law of Georgia on Licenses and Permits (2005)** This Law governs organised activities or actions that concern an undefined group of people, represent a major hazard to human life or health, involve state or public interests of special importance, or are related to the use of state resources. This Law may also apply to unorganised activities or actions if so provided for by law. This Law also regulates areas governed by licenses and

permits, defines a comprehensive list of the types of licenses and permits, and lays down the procedures for issuing, changing, and repealing licenses and permits. According to the law the State shall regulate activity or action through licenses or permits only if the activity or the action is directly associated with a major hazard to human life or health, or with areas of state or public interests. State regulation shall be applied only if issuing a license or a permit can actually reduce the major hazard or take into account state or public interests.. The aim and major principles of regulating the activity or action via licenses or permits are as follows:

- Provision and protection of human life and health
 - Safety and protection of a human's residential and cultural environment
 - Protection of state and public interests
7. The law sets out the rules for granting, amending and abolishing licenses and permits including for natural resources use.
 8. The state ensures protection of the environment and, correspondingly, protection of water as its main component in The Law of Georgia on Water (1997). All residents of Georgia are liable to ensure the rational and sustainable use and protection of water. They have to prevent its contamination, pollution and depletion. The dumping of industrial, household and other garbage and wastes in water bodies is prohibited according to this act. Under the current law requirements, no license is required for water abstraction from surface water. However, license is needed for abstraction of groundwater. In case of discharge calculation of the Maximum Permissible Discharge limits is required which should be submitted with EIA report to the MoEPA for adoption. With the objective of protecting the Black Sea and preserving its ecological system, all natural and legal persons (including foreigners) are obliged to take measures for preventing pollution of the sea with wastewater from the sources of pollution located on the land.
 9. Under the law, treatment of the wastewater discharged in a water body is required up to the fixed standard. In order 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.
 10. Georgian legislation may provide liability for other violations of law in the water protection and use sphere. Water users shall compensate for damages caused by violation of the law on Water in the amount and under procedure established by legislation of Georgia. Under Article 17 (Protection of natural resources of the Black Sea), anadromous fish species (fish species seasonally migrating upstream of a river against the current) within the rivers of Georgia shall be protected by creation of conditions necessary for their reproduction, through conservation of the habitat, determination of procedures for regulating the fishing industry, determination of a total permissible amount of catching

these species within the territorial waters, and within and outside special economic zones of Georgia, also through implementation of other measures defined by the legislation of Georgia. Article 20 (River water protection zone) defines protection zone of a river shall be its adjacent territory, where a special regime is established to protect water resources from pollution, littering, fouling, and depletion. This zone may include its dry bed, adjacent terraces, natural elevated and steep riversides, as well as gullies directly adjacent to riversides. The width of a river water protection zone shall be measured in meters from the edge of a riverbed to both sides under the following procedure:

- 10 meters - in the case of a river up to 25 kilometers long,
 - 20 meters - in the case of a river up to 50 kilometers long,
 - 30 meters - in the case of a river up to 75 kilometers long,
 - 50 meters - in the case of a river over 75 kilometers long.
11. Within this zone, it is prohibited to: (i) construct, expand or reconstruct functioning enterprises, except for cases directly determined by law; (ii) spray, by air atomization, perennial plants, sown crops, and forest lands with toxic chemicals; and (iv) keep, collect or place toxic chemicals and mineral fertilizers, as well as any other wastes as defined in the legislation of Georgia. It is requested that hydraulic structures located within a water protection zone shall be normally equipped with appropriate technical facilities to completely exclude the possibility of river pollution and littering.
12. The aim of new law on Waste Management – **Waste Management Code of Georgia** (January 2015) – is to provide for 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). The objective of this Law is to protect the environment and human health: by preventing and reducing the adverse impacts of the generation of waste; by introducing effective mechanisms of management of waste; by reducing damage caused by resource use and improving the efficiency of such use. In accordance with the Waste Management Code in Georgia, legal and natural persons that produce more than 200 tons of non-hazardous waste or 1,000 tons of inert waste or any amount of hazardous waste annually, shall prepare a company waste management plan that must be submitted to Ministry of Environmental Protection and Agriculture of Georgia for approval. It is also necessary to identify an environmental manager and provide information to MEPA. The rule for collecting and processing municipal waste is determined by the Code, as well as the prohibitions related to the management of hazardous waste. The Code obliges to develop a system of segmentation and collection of hazardous waste in the case of the production of more than 2 tons of hazardous waste during the year.
13. 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 natural 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
 - a) discard hazardous waste outside waste collection containers;
 - b) discharge it into the sewerage systems or underground or surface waters, including the sea;
 - c) burn it outside waste incinerators permitted for that purpose;
 - d) 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
 - a) create and implement a suitable separation and collection system for such waste;

- b) designate an environmental manager, pursuant to Article 15 of this Law, responsible to make arrangements for the safe management of said waste;
- c) 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:
 - a) dealing professionally with collection, transport and/or treatment of waste;
 - b) which produced more than 2 tones non-hazardous (excluding municipal waste) waste or any amount of hazardous waste per year.

Asbestos management

14. The technical regulations on Special Requirements for Collection and Processing of Hazardous Wastes approved by the GoG Resolution # 145, dated March 29, 2016 defines rules for asbestos-containing waste safe removal, package, storage and transportation. GoG resolution #421, adopted August 11, 2015 ``On Approval of the Technical Regulation on Landfill Arrangement, Operation, Closure and Post-Maintenance`` defines rules regarding disposal of asbestos-containing waste on the landfills.
15. **The Law of Georgia on Cultural Heritage (2007).** The purpose of this Law is to protect the cultural heritage of Georgia and to regulate legal relations originating in this field. The law defines the fundamental principles for the protection of culture property that involves preserving the features and peculiarities of the cultural property, as well as its settings in the case of an object of immovable cultural property, which ensure the preservation of its historical, cultural, memorial, ethnological, artistic, aesthetic, and scientific or other values. According to the Article 23 of the law, it is permissible to use cultural property only in such manner as not damage or pose a threat to it, or diminish its cultural or historical value, or change its authentic elements, or deteriorate its perception. Any kind treatment on cultural property is prohibited, unless an appropriate permit has been obtained. The following treatment activities are allowed be conducted on cultural property: a) research activities; b) rehabilitation activities including cleaning, conservation, restoration, reconstruction;

adaptation and remodeling (article 25, par. 2). Lost shapes, fragments and elements of cultural property may be restored only within the scope of restoration or reconstruction works, if the shapes, fragments and elements to be restored are completely identified based on design documents prepared on the basis of accurate scientific data. Documentary material and scientific research shall always be taken into consideration. Only exploration, cleaning, archaeological works and preventive conservation may be conducted on cultural property included in the List of Cultural Heritage for the purposes of conducting full expert analysis on it, as well as for the prevention of possible damage or the deterioration of undiscovered, and historically and culturally valuable, elements of the cultural property. For conducting treatment on a cultural property special permit shall be issued by the Ministry of Culture, Sports and Youth or by a competent body authorized by an ordinance of the Government of Georgia, and upon the recommendation of the Ministry (article 47). Article 28 defines rights and obligations of the owner (legitimate user) of cultural property. The owner shall immediately notify the Ministry and local a local self-government body on changes concerning the state of the cultural property, its storage conditions and environment; prevent any kind of unauthorized influence on the cultural property, including remodeling, fragmenting, dismantling, and adding parts or fragments to the cultural property. The law defines buffer zones for the protection of cultural heritage and their regimes. According to the Article 34 primary buffer zones comprise the following perimeters: a) the perimeter of physical security of the cultural property and b) the perimeter of visual security. Primary buffer zones for the protection of cultural property is to be established automatically from the moment of granting the status of cultural property to an immovable cultural property. The planned activities within the buffer zones shall consider the preservation of favorable geological and hydrological, and sanitary and hygienic conditions, the observation of seismic and fire safety requirements and the prevention of unfavorable interference on cultural properties and their historically evolved environments. Large-scale billboards, power transmission and telephone towers, television antennas and other large-scale surface engineering and technological equipment shall not be installed within the active visual perception space of buffer zones of cultural properties. Industrial, transportation, warehouse and other facilities which are not fire safe and create heavy traffic flow of cargo vehicles and vehicles for transportation, and cause air or water pollution, shall not be constructed within buffer zones. A perimeter of physical security of a cultural property is the territory surrounding the immovable cultural property in which any activity may physically damage the cultural property or its vicinity. The perimeter of physical security is defined by the following distance: the height of the cultural property multiplied by two, but with no less than 50 meters of radius. The perimeter of visual security of a cultural property is the territory beyond the perimeter of physical security, changes to which may influence the historically evolved environment of the cultural property and/or the full perception of the cultural property. The perimeter of visual security shall be defined: a) for a cultural property, within a radius of 300 meters; b) for a cultural property of national importance, within a radius of 500 meters; c) for cultural properties included in the World Heritage List, within a radius of 1000 meters. If a cultural property is located in an urban area, the appropriate distance indicated above regarding cultural properties can be halved. Any activity which may damage the historically evolved

environment of a cultural property, or hinder optimum visibility and full perception of the cultural property and diminish its value, shall not be permitted within the perimeter of visual security. The law defines types and categories of treatment to be conducted on cultural monuments which is subject of special permit. The law defines types and conditions of Archeological works as well. Article 14 of the Law specifies the requirements for 'large-scale' construction works. According to this Article, a decision on career treatment and or extraction on the whole territory of Georgia, as well as on construction of an object of a special importance as it may be defined under the legislation of Georgia, is made by a body designated by the legislation of Georgia based on the positive decision of the Ministry of Culture and Monument Protection of Georgia. The basis for the conclusion is the archaeological research of the proper territory to be carried out by the entity wishing to accomplish the ground works. The entity wishing to do the ground works is obliged to submit to the Ministry the documentation about the archaeological research of the territory in question. The preliminary research should include field-research and laboratory works. In case of identifying an archaeological object on the territory to study, the conclusion of the archaeological research should contain the following information: (a) a thorough field study of the archaeological layers and objects identified on the study territory by using modern methodologies, (b) recommendations about the problem of conservation of the identified objects and planning of the building activity on the design territory, on the basis of the archaeological research.

16. **The Law of Georgia “On the Red List and Red Book”** (2003) regulates the legal relations in the field of developing the Red List and Red Book, provides legal basis for the protection of endangered flora and faunas species in Georgia, regulates the issues related to the international trade with endangered wild animals and wild plants,. According to Article 10 of the Law, any activity, including hunting, fishing, extraction, cutting down and hay-mowing, except particular cases envisaged by the present Law, Law of Georgia ‘On animal life’ and legislation of Georgia, which may result in the reduction in number of the endangered species, deterioration of the their habitat or living conditions, is prohibited. The Red List of Georgia was adopted by the Presidential Decree No. 303 ‘On approving the Red List of Georgia’ (May 2, 2006). (Later the same list was adopted by the Resolution of the Georgian Government No. 190, dated 20-Feb-2014). 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. The Red List of Georgia now includes 56 plant and 139 animal species. Out of these, 20 plant and 43 animal species are categorized as critically endangered (CR) or endangered (EN).
17. **The Forest Code of Georgia (2020)** regulates legal relations related to forest management. The purpose of the Code is: a) to conserve the biodiversity of the forest of Georgia, and, in order for the environmental, social and economic functions of forest to be performed, to preserve and improve its qualitative properties, and the quantitative and qualitative characteristics of forest resources; b) to preserve the original natural and cultural environment of forest, including the vegetation cover and animal world, and natural and cultural property located in forest, and rare and endangered plant species and other assets for future generations and to ensure the harmonized regulation of their

interrelation; c) to ensure targeted and rational use of forest resources and other natural potential of forest; d) to determine the main principles of forest management which shall become the basis for sustainable forest management. According to the Forest Code, taking into consideration the environmental, social and economic functions of forest and the main purposes of forest management, the Forest Code include categorization of the forest into the following categories: a) a protected forest; b) a protection forest; c) a resort and recreational forest; d) a commercial forest. A forest granted the status of protected area, riparian and arid forest creating a natural landscape, as well as forest with a high concentration of forest forming species that are protected at the national level are defined as protected forest. The Forest Code defines requirements for forest inventory, planning, information and monitoring systems. The Forest Code envisages gradual restoration of forestry and the replacement of social cutting with sustainable and multi-purpose benefits.

18. **Law of Georgia on Ambient Air Protection (1999)** regulates the protection of atmospheric air from the harmful anthropogenic influence on the entire territory of Georgia. The objective of the law is to ensure the safe environment for the atmospheric air of human health and the natural environment. Four types of pollution are considered (Part II, Chapter IV, Article II.2): (i) Pollution of environment with hazardous matter; (ii) Radiation pollution of atmospheric air; (iii) Pollution with microorganisms and biologically active matter of microbial origin; and (iv) 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, taking into account inter-location of existing or planned dwellings, sanatoria and recreation zones. In compliance with the law (Clause 28), in order to restrict pollution from the stationary sources 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 (Clause 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 (Clause 30) are to be worked out by the enterprise itself. According to the law (Clause 38) the enterprise is responsible for conducting self-monitoring which includes measurement of emission (evaluation), recording/registration and accounting. Emission which has not been recorded in self-monitoring record is considered illegal. As mentioned in the Clause 51 results of the monitoring and information on pollution of the air with hazardous substances is transparent and accessible for the public.

19. **The aim of the Law of Georgia on Public Health (2007)** is as follows: Promotion of the introduction of a good health and healthy lifestyle of the population; Creation of the environment, which is safe for a human health; Promotion of the protection of the reproductive health of a family; Prevention of infectious and non-infectious diseases. The Law defines the rights and obligations of the population and legal entities in the field of public health. Aiming at establishing the environment safe to the public health, the Ministry sets the qualitative standards for the environment safe for a human health (atmospheric air, water, soil, noise, vibration, electromagnetic radiation), including maximum permissible concentrations and rates of harmful impact. The standards are mandatory. Every person on the territory of Georgia is obliged not to carry out the activity, which causes a hazard of the infectious and non-infectious diseases to spread and helps the origination of the risks to human health; protect the sanitary and epidemiological standards; to supply the information to the public health department about all emergencies caused by the violation of the sanitary norms in the production or technological process, etc. The observance of the standards is controlled by appropriate state structures. The responsibility for the internal and external audits rests with a certified, independent laboratory.
20. **Law of Georgia on Soil Protection:** The law provides the policy requirements and principles of the protection and preservation of fertility soil resources against negative impacts. 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 the Technical Regulation On the Topsoil Removal, Storage, Use and Re-Cultivation adopted by the GoG Decree #424, December, 2013. The regulation defines rules for topsoil removal and disposal during implementation of earth works. According to the regulation (Article 3) all types of damaged and deteriorated soil, as well as the area adjacent to it, which partially or fully lost productivity under the negative impact of damaged and deteriorated soils are subject to re-cultivation. Re-cultivation works shall be implemented in accordance with re-cultivation plan/project, which shall be adopted by the Ministry of Environment Protection and Agriculture
21. Laws and regulations related to social aspects and land ownership applicable to the program are presented below.
22. **Law of Georgia on Agricultural Land Ownership.** 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.
23. **Civil Code** regulates contractual relations, describes the rights and responsibilities of

natural and legal persons.. 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 taken into account when entering into contracts in Georgia.

24. Law on Rules for Expropriation of Property for Public Needs 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.
25. **Law on State Property** 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.
26. **Labor 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.
27. **Law of Georgia on Labour Safety** define basic requirements and preventive measures in terms of workplace safety for the employers. The Law applies to jobs considered to be of increased danger, hard, harmful, and hazardous. The employer's compliance with the labor safety regulations in Georgia are overseen by the Ministry of Health, Labor and Social Affairs of Georgia through its respective departments.

B.2. Environmental Regulations and Standards

62. The project will be implemented in compliance with the national regulations and also in line with the ABD SPS 2009 requirements. Therefore, more stringent requirements of the two are applicable. 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 IFC and EU standards.

Ambient Air Quality Standards:

63. In accordance with the Law of Georgia on Public Health, the environmental qualitative norms are approved by Decrees of the Minister of Labor, Health and Social Affairs of Georgia (Decrees Nos. 297/N of 16.08.2001, including the changes made to it by further decrees of the Ministry Nos. 38/N of 02.24.2003, 251/N of 09.15.1006, N of 12.17.2007). The quality of atmospheric air (pollution with hazardous matter) is also defined by the order of the Minister of Environment Protection and Natural Resources (#89, 23 October 2001) on approval of the rule for calculation of index of pollution of atmospheric air with hazardous pollution. Maximum permissible concentrations (MPC) for air born pollutants

are set by Technical Regulations – Ambient air quality standards (Ordinance #383 - approved by GoG on 27 July, 2018).

64. Table 2 shows the threshold values of the major air pollutants as defined by the GEO, IFC and EU legislation.

Table 2. Ambient Air Quality Standards

Parameter	Averaging Period	Limit (µg/m³)		
		Maximum Permissible Concentration (MPC) for Air Quality	IFC Guideline Value	EU Ambient Air Quality Guidelines
Nitrogen Dioxide (NO ₂)	30 minutes	200	-	-
	1 Hour	200 µg/m³	200	200
	24 Hours	40	-	-
	1 Year	40 µg/m³	40	40
Sulphur Dioxide (SO ₂)	10 minutes	-	500	-
	30 minutes	500	-	-
	1 Hour	-350 µg/m³	-	350
	24 Hours	125 µg/m³	20	125
Carbon Monoxide (CO)	30 minutes	5,000	-	-
	24 Hours	3,000	-	-
	8 hours	10 mg/m³	-	-
Total Suspended Particulates (TSP) / Dust	24 Hours	150	-	-
	30 minutes	500	-	-
PM10	1 year	40 µg/m³	20	40
	24 hours	50 µg/m³	50	50
PM2.5	1 year	25 µg/m³	10	25
	24 hours		25	-
Ozone	8-hour daily maximum	120 µg/m³	100	120

Note: World Health Organization (WHO) Air Quality Guidelines Global Update, 2005.
PM 24-hour value is the 99th percentile. Interim targets are provided in recognition of the need for a staged approach to achieving the recommended guidelines.

65. In general, Georgian standards for ambient air correspond to international IFC/WB standards, however in case of differences more stringent standards are applicable.

Noise Standards:

66. 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) see Table 3.

67. For IFC noise impacts should not exceed the levels presented in Table 5 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.

Table 3. Georgian Standards for Noise Levels

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, café 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

Note: 1. in case noise generated by indoor or outdoor sources is impulse or tonal, the limit must be 5dBA less than indicated in the table.

68. 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.

Table 4. IFC Noise Level Guidelines

Receptor	One-hour L _{aeq} (dBA)	
	Daytime	Night-time
	07.00-22.00	22.00 – 07.00

Residential; institutional; educational	55	45
Industrial; commercial	70	70

69. For workplace noise the following IFC standards are applicable.

Table 5. IFC Work Environment Noise limits

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

Vibration Standards:

70. The Georgian Standards for vibration are designed for human comfort. These are shown in Table 6. Note that no standards for building damage exist.

Table 6. Georgian General Admissible Vibration Values in Residential Houses, Hospitals and Rest Houses, Sanitary Norms 2001

Average Geometric Frequencies of Octave Zones (Hz)	Allowable Values X_0, Y_0, Z_0			
	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 day time 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 have to be reduced by 3dB.

71. The American Association of State Highway and Transportation Officials (AASHTO) (1990) identifies maximum vibration levels for preventing damage to structures. **Error! Reference source not found.**7 summarizes the maximum levels.

Table 7. 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
Engineer end structures, without plaster	1.0-1.5

Soil Quality:

72. In Georgia, soil quality evaluation criteria are determined by instructions on "Level of Chemical Contamination of Soil" (MM 2.1.7. 004-02). Information on maximum admissible concentrations of various substances and elements in soils are given in the Table 8.

Table 8. Maximum 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
Isopropylene-benzol	mg/kg	0.5
Pesticides		
Atrazine	mg/kg	0.5
Linden	mg/kg	0.1
DDT (and its metabolite)	mg/kg	0.1

Ground water quality standards:

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

74. Potable water quality criteria are determined by technical regulations on potable water (Government Regulation N 58 from January 15, 2014 Potable water quality criteria are given in Table 9.

Table 9. Potable Water Criteria

Index	Measuring unit	Standard not more than:
Common characteristics		
Hydrogen index	PH	6-9
Permanganate oxidation	mg O ₂ /L	3,0
Non organic 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
Manganese (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
Lead (Pb, total)	mg/L	0.01
Fluorine (F)	mg/L	0.7
Chromium (Cr ⁶⁺)	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

Surface Water Quality Standards:

75. 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 24.02.2003). The admissible level of pollutants in surface water is given in **Error! Reference source not found.**10. All effluents shall comply with the Georgian National Standards. However certain parameters are not specified in the national standards for these IFC Guidelines are being used as shown in the Table 10.

Table 10. Applicable Standards for Surface Water Quality

Parameter	Maximum Permissible concentration	Source
pH	6.5-8.5	National
Diluted Oxygen, mg/l	4-6	National
BOD ₅ , 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

76. 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, 31/12/2013). 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 11. Water Quality Requirements by Water Use Category

	Water use category			
	House hold water use	Domestic water use	Fisheries	
			Highest and first	Second
	Increase not higher that listed below is allowed			
	0.25 mg/l	0.75 mg/l	0.25mg/l	0.75 mg/l
Suspended solids	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 an 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	

	Water use category			
	House hold water use	Domestic water use	Fisheries Highest and first	Second
			summer), 8°C (in winter).	
pH	Must be in 6.5 - 8.5 interval			
Water mineralization	<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
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.	

Sanitary Waste water:

77. 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:
- I. Segregation of wastewater streams to ensure compatibility with selected treatment option (e.g. septic system which can only accept domestic sewage);
 - II. Segregation and pre-treatment of oil and grease containing effluents (e.g. use of a grease trap) prior to discharge into sewer systems;
 - III. 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 in Table12;
 - IV. 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 in compliance with local regulatory requirements, in the absence of which 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.

Table 12. Indicative Values for Treated Sanitary Sewage Discharges

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

Surface Water Quality and Groundwater Project Standards

78. Baseline and construction phase water quality monitoring will be assessed against national standards.

Waste Water Discharge Project Standards

79. Waste water discharge from construction sites and camps shall be assessed against IFC values (for any treated sanitary sewage discharge).

IFC Environmental, Health, and Safety Guidelines for Water and Sanitation

80. IFC Environmental, Health, and Safety Guidelines for Water and Sanitation⁵ 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 protect water quality, drinking water treatment, water distribution, wastewater collection and treatment. Recommended measures to prevent, minimize and control impacts of wastewater treatment includes: (i) Minimize bypass of the treatment system by using separate storm water and wastewater systems, if possible, and providing capacity sufficient to treat peak flows; (ii) Implement an industrial source control program which includes monitoring and effective regulatory enforcement; (iii) Collaborate with public officials to select appropriate treatment technologies, considering factors such as the quality and quantity of raw

⁵ <https://www.ifc.org/wps/wcm/connect/0d8cb86a-9120-4e37-98f7-cfb1a941f235/Final%2B%2BWater%2Band%2BSanitation.pdf?MOD=AJPERES&CVID=jkD216C>

wastewater and its variability; (iv) Design, construct, operate, and maintain wastewater treatment facilities and achieve effluent water quality consistent with applicable national requirements or internationally accepted standards and consistent with effluent water quality goals based on the assimilative capacity and the most sensitive end use of the receiving water; (v) Consider discharge of treated wastewater to natural or constructed wetlands, which can buffer the impact from discharge on the aquatic environment, unless the wetland itself would be degraded by the discharge; (vi) Treat greywater, if collected separately from sewage, to remove organic pollutants and reduce the levels of suspended solids, pathogenic organisms and other problematic substances to acceptable levels based on applicable national and local regulations; (vii) Based on an assessment of risks to human health and the environment, consider re-use of treated effluent, especially in areas with limited raw water supplies. Treated wastewater quality for land application or other uses should be consistent with the relevant public health-based guidance from the World Health Organization (WHO) and applicable national requirements.

B.3. ADB Policies

81. Superseding the previous safeguard policies (the Involuntary Resettlement Policy, 1995, the Policy on Indigenous Peoples, 1998, and the Environment Policy 2002), ADB, has adopted a comprehensive Safeguard Policy Statement in 2009 (SPS, 2009). The SPS describes common objectives of ADB's safeguards, lays out policy principles, and outlines the delivery process for ADB's safeguard policy. It applies to all ADB-financed, ADB administered projects, and their components including investment projects funded by a loan or grant.
82. With the goal to promote sustainability of project outcomes by protecting the environment and people from projects' potential adverse impacts, the objectives of ADB's safeguards are to:
 - i. avoid adverse impacts of projects on the environment and affected people, where possible;
 - ii. 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.
83. ADB's SPS 2009, sets out the policy objectives, scope and triggers, and principles for three key safeguard areas:
 - i. environmental safeguards,
 - ii. involuntary resettlement safeguards, and
 - iii. indigenous peoples safeguards.

84. Environmental Safeguards. The objective of environmental safeguards is to ensure the environmental soundness and sustainability of project and to support the integration of environmental considerations into the project decision-making process. All ADB funded projects are screened at initial stages of preparation and categorized according to significance of a project's potential environmental impacts. For screening of projects special Rapid Environmental Assessment (REA) Checklist is used. Projects are signed to one of the following three 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 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 initial environmental examination 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.
85. ADB's environmental assessment requirement is thus different from the Georgian system of environmental assessment. While Environment Impact Decision as per the Georgian Law is required only for notified activities, ADB SPS 2009 applies to all projects and its environmental assessment requirement varies according to the category of the project depending on the nature and scale of the anticipated impacts.
86. Environmental screening and preliminary categorization of the project was carried out in accordance with ADB's Safeguard Policy Statement, 2009 (SPS, 2009) and based on experience from other similar projects funded by IFIs, including ADB. The project screening has been done by TRTA (Transaction Technical Assistance) for the borrower, in this case the Government of Georgia, according to the ADB requirements for the LCIP. Based on results of the screening using ADB REA Checklist (Attachment 3) of this subproject, it is classified as "Category B". During construction and operation of the facilities, the subproject may cause impacts that are site-specific, temporary and short in duration. These impacts are assessed as insignificant, reversible, not diverse and common to activities in urban or developed areas. Thus, this IEE has been prepared in accordance with ADB SPS's requirements for environment category B projects.
28. Environmental screening and preliminary categorization of the project was carried out in accordance with ADB's Safeguard Policy Statement, 2009 (SPS, 2009) and based on experience from other similar projects funded by IFIs, including ADB. The project screening has been done by TRTA (Transaction Technical Assistance) for the borrower, in this case the Government of Georgia, according to the ADB requirements for the LCIP. Based on results of the screening using ADB REA Checklist of this subproject, it is classified as "Category B". During construction and operation of the facilities, the

subproject may cause impacts that are site-specific, temporary and short in duration. These impacts are assessed as insignificant, reversible, not diverse and common to activities in urban or developed areas. Thus, this IEE has been prepared in accordance with ADB SPS's requirements for environment category B projects.

29. ADB SPS also requires the following:
30. Environmental Management Plan. An EMP which addresses the potential impacts and risks identified by the environmental assessment shall be prepared. 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.
31. Environmental Audit of Existing Facilities. ADB SPS requires an environmental audit, if a subproject involves facilities and/or business activities that already exist or are under construction, including an on-site assessment to identify past or present concerns related to impacts on the environment. The objective of this compliance audit is to determine whether actions were in accordance with ADB's safeguard principles and requirements for borrowers/clients, and to identify and plan appropriate measures to address outstanding compliance issues
32. Public Disclosure. The IEE will be put in an accessible place (e.g., local government offices, libraries, community centers, etc.), and a summary translated into local language for the project affected people and other stakeholders. The following safeguard documents will be put up in ADB's website so that the affected people, other stakeholders, and the public can provide meaningful inputs into the project design and implementation:
 - For environmental category A projects, a draft EIA report at least 120 days before Board consideration;
 - Final or updated EIA and/or IEE upon receipt; and
 - Environmental monitoring reports submitted by the Project Management Unit (PMU) during project implementation upon receipt.
33. **Consultation and Participation.** ADB SPS require borrower to conduct meaningful consultation⁶ with affected people and other concerned stakeholders, including civil society, and facilitate their informed participation. The consultation process and its results are to be documented and reflected in the environmental assessment report.
34. **Grievance Redress Mechanism.** ADB SPS require borrowers to establish a mechanism to receive and facilitate resolution of affected people's concerns, complaints, and grievances about the subproject's performance. The grievance mechanism shall be scaled to the risks and adverse impacts of the subproject.

⁶ Per ADB SPS, 2009, meaningful consultation means a process that (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle;1 (ii) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people; (iii) is undertaken in an atmosphere free of intimidation or coercion; (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues.

35. **Monitoring and Reporting.** Borrower shall monitor, measure and document the implementation progress of the EMP. If necessary, the borrower shall identify the necessary corrective actions, and reflect them in a corrective action plan. Borrower shall prepare and submit to ADB semi-annual environmental monitoring reports that describe progress with implementation of the EMP and compliance issues and corrective actions, if any. For subprojects likely to have significant adverse environmental impacts during operation, reporting will continue at the minimum on an annual basis until ADB issues a project completion report.
36. **Unanticipated Environmental Impacts.** Where unanticipated environmental impacts become apparent during subproject implementation, ADB SPS requires the borrower to update the environmental assessment and EMP or prepare a new environmental assessment and EMP to assess the potential impacts, evaluate the alternatives, and outline mitigation measures and resources to address those impacts.
37. **Occupational Health and Safety.** ADB SPS requires the borrower⁷ to ensure that workers⁸ are provided with a safe and healthy working environment, considering risks inherent to the sector and specific classes of hazards in the subproject work areas, including physical, chemical, biological, and radiological hazards. Borrower shall take steps to prevent accidents, injury, and disease arising from, associated with, or occurring during the course of work, including: (i) identifying and minimizing, so far as reasonably practicable, the causes of potential hazards to workers; (ii) providing preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances; (iii) providing appropriate equipment to minimize risks and requiring and enforcing its use; (iv) training workers and providing them with appropriate incentives to use and comply with health and safety procedures and protective equipment; (v) documenting and reporting occupational accidents, diseases, and incidents; and (vi) having emergency prevention, preparedness, and response arrangements in place.
38. **Community Health and Safety.** ADB SPS requires the borrower to identify and assess risks to, and potential impacts on, the safety of affected communities during the design, construction, operation, and decommissioning of the subproject, and shall establish preventive measures and plans to address them in a manner commensurate with the identified risks and impacts.
39. **Physical Cultural Resources.** Borrower is responsible for siting and designing the subproject to avoid significant damage to physical cultural resources. ADB SPS requires that such resources likely to be affected by the subproject are identified, and qualified and experienced experts assess the subproject's potential impacts on these resources using field-based surveys as an integral part of the environmental assessment process. When the proposed location of a subproject component is in areas where physical cultural resources are expected to be found as determined during the environmental assessment

⁷ In case where responsibility is delegated to subproject contractors during construction phase, borrower shall ensure that the responsibilities on occupational health and safety are included in the contract documents.

⁸ Including nonemployee workers engaged by the borrower/client through contractors or other intermediaries to work on project sites or perform work directly related to the project's core functions.

process, chance finds procedures shall be included in the EMP.

40. **Biodiversity Conservation and Sustainable Natural Resource Management.** The borrower/client will assess the significance of project impacts and risks on biodiversity and natural resources as an integral part of the environmental assessment process. The assessment will focus on the major threats to biodiversity, which include destruction of habitat and introduction of invasive alien species, and on the use of natural resources in an unsustainable manner. The borrower/client will need to identify measures to avoid, minimize, or mitigate potentially adverse impacts and risks and, as a last resort, propose compensatory measures, such as biodiversity offsets, to achieve no net loss or a net gain of the affected biodiversity.
41. **Modified habitats.** In areas of modified habitat, where the natural habitat has apparently been altered, often through the introduction of alien species of plants and animals, such as in agricultural areas, the borrower/client will exercise care to minimize any further conversion or degradation of such habitat, and will, depending on the nature and scale of the project, identify opportunities to enhance habitat and protect and conserve biodiversity as part of project operations.
42. **Natural habitats.** In areas of natural habitat,⁹ the project will not significantly convert or degrade¹⁰ such habitat, unless the following conditions are met: (i) no alternatives are available; (ii) a comprehensive analysis demonstrates that the overall benefits from the project will substantially outweigh the project costs, including environmental costs; (iii) any conversion or degradation is appropriately mitigated. Mitigation measures will be designed to achieve at least no net loss of biodiversity. They may include a combination of actions, such as post project restoration of habitats, offset of losses through the creation or effective conservation of ecologically comparable areas that are managed for biodiversity while respecting the ongoing use of such biodiversity by Indigenous Peoples or traditional communities, and compensation to direct users of biodiversity.
43. **Critical habitat.** No project activity will be implemented in areas of critical habitat¹¹ unless the following requirements are met: (i) there are no measurable adverse impacts, or

⁹ Land and water areas where the biological communities are formed largely by native plant and animal species, and where human activity has not essentially modified the area's primary ecological functions.

¹⁰ Significant conversion or degradation is (i) the elimination or severe diminution of the integrity of a habitat caused by a major, long-term change in land or water use; or (ii) the modification of a habitat that substantially reduces the habitat's ability to maintain viable populations of its native species. Significant conversion may include, for example, land clearing; replacement of natural vegetation (for example, by crops or tree plantations); permanent flooding (by a reservoir for instance); drainage, dredging, filling, or canalization of wetlands; or surface mining.

¹¹ Critical habitat is a subset of both natural and modified habitat that deserves particular attention. Critical habitat includes areas with high biodiversity value, including habitat required for the survival of critically endangered or endangered species; areas having special significance for endemic or restricted-range species; sites that are critical for the survival of migratory species; areas supporting globally significant concentrations or numbers of individuals of congregatory species; areas with unique assemblages of species or that are associated with key evolutionary processes or provide key ecosystem services; and areas having biodiversity of significant social, economic, or cultural importance to local communities. Critical habitats include those areas either legally protected or officially proposed for protection, such as areas that meet the criteria of the World Conservation Union classification, the Ramsar List of Wetlands of International Importance, and the United Nations Educational, Scientific, and Cultural Organization's world natural heritage sites.

likelihood of such, on the critical habitat which could impair its high biodiversity value or the ability to function; (ii) the project is not anticipated to lead to a reduction in the population of any recognized endangered or critically endangered species¹² or a loss in area of the habitat concerned such that the persistence of a viable and representative host ecosystem be compromised; and (iii) any lesser impacts are mitigated in accordance with principles specified in natural habitats. When the project involves activities in a critical habitat, the borrower/client will retain qualified and experienced external experts to assist in conducting the assessment.

44. **Legally Protected Areas.** In circumstances where some project activities are located within a legally protected area, in addition to the requirement for critical habitats, the borrower/client will meet the following requirements: (i) act in a manner consistent with defined protected area management plans; (ii) consult protected area sponsors and managers, local communities, and other key stakeholders on the proposed project; and (iii) implement additional programs, as appropriate, to promote and enhance the conservation aims of the protected area.
45. **Invasive Alien Species.** The borrower/client will not intentionally introduce any new alien species (that is, species not currently established in the country or region of the project) unless carried out in accordance with the existing regulatory framework for such introduction, if such a framework is present, or unless the introduction is subject to a risk assessment (as part of the environmental assessment) to determine the potential for invasive behavior. Under no circumstances must species known to be invasive be introduced into new environments. The borrower/client will undertake assessment of the possibility of accidental or unintended introduction of such invasive alien species and identify measures to minimize the potential for release.
46. **Management and Use of Renewable Natural Resources.** Renewable natural resources will be managed in a sustainable manner. Sustainable resource management is management of the use, development, and protection of resources in a way, or at a rate, that enables people and communities, including Indigenous Peoples, to provide for their current social, economic, and cultural well-being while also sustaining the potential of those resources to meet the reasonably foreseeable needs of future generations. This includes safeguarding the life-supporting capacity of air, water, and soil ecosystems. Where possible, the borrower/client will demonstrate the sustainable management of resources through an appropriate system of independent certification.
47. **ADB SPS International Best Practice Requirements.** ADB SPS requires that, during the design, construction, and operation of the project, the executing agency shall apply pollution prevention and control technologies and practices that are consistent with international good practice, as reflected in internationally recognized standards such as the World Bank Group's Environment, Health and Safety Guidelines. (IFC's General EHS Guidelines¹⁴ and Sector Specific (Water and Sanitation) Guidelines¹⁵). These standards contain performance levels and measures that are normally acceptable and applicable to

¹² As defined by the World Conservation Union's Red List of Threatened Species or as defined in any national legislation.

projects. These standards contain performance levels and measures that are normally acceptable and applicable to projects. When Government of India regulations differ from these levels and measures, the PMU and PIUs will achieve whichever is more stringent. If less stringent levels or measures are appropriate in view of specific project circumstances, the PMU and PIUs will provide full and detailed justification for any proposed alternatives that are consistent with the requirements presented in ADB SPS.

Accountability Mechanism:¹³

87. The Asian Development Bank (ADB) created the Inspection Function in 1995 to provide an open forum for public scrutiny to ensure that ADB complies with its operational policies and procedures. Building on the Inspection Function and benefiting from intensive public consultations, ADB introduced the updated Accountability Mechanism in 2012. The Accountability Mechanism encompasses two mutually supportive functions: problem solving and compliance review.
88. The Accountability Mechanism is designed to:
 - Increase ADB's development effectiveness and project quality;
 - Be responsive to the concerns of project-affected people and fair to all stakeholders;
 - Reflect the highest professional and technical standards in its staffing and operations;
 - Be as independent and transparent as possible;
 - Be cost-effective and efficient; and
 - Be complementary to the other supervision, audit, quality control, and evaluation systems at ADB.
89. The Accountability Mechanism complements other problem solving and compliance systems at ADB audit, evaluation, and learning systems to ensure that its operations are conducted in accordance with operational policies and procedures, and deliver the intended results.
90. It reflects ADB's philosophy that problem prevention and compliance should be maximized in its operations, and also that once problems and noncompliance occur, they should be addressed promptly at the project and operational levels.

Information Disclosure:

91. In line with ADB's Access to Information Policy (September 2018), ADB works closely with its borrowers and clients to ensure two-way communications about ADB projects with project-affected people and other stakeholders. This is done within a timeframe, using relevant languages, and in a way that allows project-affected people and other

¹³ ADB's Accountability Mechanism Policy 2012 is available at: <http://www.adb.org/documents/accountability-mechanism-policy-2012>

stakeholders to provide meaningful inputs into project design and implementation.

92. ADB will post the following safeguard documents on its website:
- i. for environment category A projects, draft environmental impact assessment reports at least 120 days before Board consideration;
 - ii. draft Environmental Assessment and Review Framework (EARF), draft Resettlement Frameworks and/or plans, and draft Indigenous Peoples planning frameworks and/or plans before project appraisal;
 - iii. final or updated environmental impact assessments and/or initial environmental examinations, resettlement plans, and Indigenous Peoples plans upon receipt;
 - iv. environmental, involuntary resettlement, and Indigenous Peoples monitoring reports submitted by borrowers/clients during project implementation upon receipt.

B.4. Comparison of the National legislation and ADB Requirements

93. The above accounts of national environmental law and ADB policy indicate that the two systems are similar but then there are some aspects in which ADB policy is more specified than the Georgian procedure. The main differences are as follows.
94. Considering ecological risk, cultural heritage, resettlement and other factors, the Bank classifies projects supported by them under categories A, B, C and FI. In the Georgian legislation, EIA is carried out within the scope of the activities provided for by Annex I to the New Environmental Assessment Code, and of the activities provided for by the Annex II to the same Code, according to a screening decision. Asian Development Bank guidelines requires EIA for category A projects, IEE for the B category projects, and an environmental review of projects that are not expected to produce environmental impacts (category C), while According to the Georgian legislation IEE is not required.
95. Georgian legislation does not specify the format of environmental management plans as well (EMPs) and the stage of their provision for projects requiring EIA and does not require EMPs for projects not requiring EIAs. The Asian Development Banks guidelines requires EMPs for all categories of projects and provides detailed instructions on the content.
96. According to Georgian legislation MEPA is responsible for monitoring of project implementation and compliance with the standards and commitments provided in the EIA, and the role of the EMP is less clearly defined. The IPMO or "Project Proponent" is responsible for implementing "self-monitoring" programs for projects requiring EIA. In contrast ADB guidelines stress the role of EMPs, which are important for all categories of projects, and the Project Proponent is required to ensure inclusion of a monitoring scheme and plans into EMPs. Monitoring of performance compliance against EMPs is important element of ADB requirements.
97. The national legislation also does not take into account the issue of involuntary resettlement at any stage of environmental permit issuance. The Georgian legislation considers social factors only in regard to life and health safety (e.g. if a project contains a

risk of triggering landslide, or emission/discharge of harmful substances or any other anthropogenic impact). While the ADB SPS (2009) establishes the responsibility of a Borrower for conducting an environmental assessment, the Environmental Assessment Code provides for the responsibility of a project implementing unit to prepare EIA.

98. Ministry is responsible for in public consultation required for the issuing of Environmental decision as established under the new Environmental Assessment Code of Georgia. ADB carry out project screening and categorization at the earliest stage of project preparation when sufficient information is available for this purpose, also according Access to Information Policy of ADB. The Bank is committed to working with the borrower/client to ensure that relevant information (whether positive or negative) about social and environmental safeguard issues is made available in a timely manner.
99. In regard with consultation: The Bank provides for consultations for A and B Category projects (at least two consultations for Category A projects) and requires a timetable of consultations from the Borrower. The national legislation, in particular Environmental Assessment Code provides detailed procedures for the public participation only for the projects subject to environmental screening or environmental impact assessment. The Bank's guidelines provide a detailed description of procedures for screening, scoping and conducting EIA and explain a complete list of stages, which are not specified under the national legislation.
100. The Environmental Assessment Code, which was adopted in June 2017 and entered into force in January 2018 includes screening, scoping, preparing an EIA report, public participation, carrying out consultations and preparing an expert opinion on the basis of the evaluation of the results obtained, and taking account of the expert opinion in issuing an environmental decision under this Code and/or a respective enabling administrative act as provided for by the legislation of Georgia.
101. Environmental impact assessment falls within the scope of the activities provided for by Annex I to this Code, and of the activities provided for by the Annex II to the same Code, according to a screening decision.
102. Screening Stage: A person carrying out activities shall, as early as possible at the stage of planning an activity, submit to the Ministry an application for the screening of the planned activity and obtain from the Ministry a decision on whether the planned activity is subject to an EIA.
103. Within three days after a screening application has been registered, the Ministry shall have the application placed on its official website and on the notice board of the executive body and/or representative body of a respective municipality, and upon request, shall make a printed copy available under a procedure established by the legislation of Georgia. The public may, within seven days after the screening application has been placed on the website and the notice board, submit to the Ministry opinions and comments with respect to the application under the procedure established by Article 34(1) of this Code. The Ministry shall review the opinions and comments submitted by the public and, if there are appropriate grounds, shall take them into account when making a decision on the screening.

104. Scoping Stage: A person carrying out activities shall, as early as possible at the stage of planning an activity, file with the Ministry a scoping application along with a scoping report.
105. Within three days after a scoping application has been registered, the Ministry shall have the scoping application and the scoping report placed on its official website and on the notice board of the executive body and/or representative body of a respective municipality, and upon request, shall make printed or electronic copies available under a procedure established by the legislation of Georgia.
106. The public may, within 15 days after the placement of the scoping application submit to the Ministry opinions and comments with respect to the scoping report. When issuing the scoping opinion, the Ministry shall ensure a review of the opinions and comments submitted by the public and, if there are appropriate grounds, take them into account.
107. Not earlier than the 10th day and not later than the 15th day after the placement of the scoping application under the procedure established by Article 8(2) of this Code, the Ministry shall ensure the holding of a public review of the scoping report. The Ministry shall be responsible for organizing and holding public reviews. Public reviews shall be led, and the minutes of public reviews shall be drafted, by a representative of the Ministry. Information on the public review shall be published not later than 10 days before the public review is held, in accordance with Article 32 of this Code. Public reviews shall be open and any member of the public may participate in them.
108. After the MEPA approves the scoping opinion, the person carrying out activities and/or an adviser shall ensure the preparation of an EIA report. The person carrying out activities shall ensure the reimbursement of the costs necessary for preparing an EIA report. The Ministry shall have EIA information on its official website and on the notice board of the executive body and/or representative body of a respective municipality.
109. The public may, within 40 days after the placement of the application, submit to the Ministry opinions and comments under the procedure established by Article 34(1) of this Code with respect to the EIA report, the planned activity and the conditions to be included in the environmental decision. When making an environmental decision or a legal act refusing the carrying out of the activity, the Ministry shall ensure the review of the opinions and comments submitted and, if there are appropriate grounds, take them into account.
110. Not earlier than the 25th day and not later than the 30th day after the placement of the application under the procedure established by Article 11(3) of this Code, the Ministry shall hold a public review of the EIA report. The Ministry shall be responsible for organizing and holding reviews. Public reviews shall be led, and the minutes of public reviews shall be drafted, by a representative of the Ministry. The Ministry shall be responsible for the accuracy of the minutes. Information on the public review shall be published not later than 20 days before the public review is held, in accordance with Article 32 of this Code.
111. Not earlier than the 51st day and not later than the 55th day after the registration of an application for obtaining an environmental decision, the Minister shall issue an individual administrative act on the issuance of an environmental decision or, if there exist grounds provided for by Article 18 of this Code, on the refusal of the carrying out of the activity.

When making environmental decisions, the guideline document on Environmental Impact Assessment may be used.

Table 13. Activities and responsibilities in EIA for national law and ADB policy

#	Action	Georgian Legislation	ADB Requirements
1	Screening	Consultant hired by Project Proponent	Bank and Consultant hired by Project Proponent
2	Scoping	Consultant hired by Project Proponent.	Obligatory. Bank and Consultant hired by Project Proponent
3	Draft EIA	To be prepared by Environmental Consultant.	To be prepared by Environmental Consultant.
4	Public Consultations	Not earlier than the 25th day and not later than the 30th day after the placement of the application under the procedure established by Article 11(3) of this Code, the Ministry shall hold a public review of the EIA report. Public reviews shall be led, and the minutes of public reviews shall be drafted, by a representative of the Ministry. Information on the public review shall be published not later than 20 days before the public review is held, in accordance with Article 32 of this Code	At least two consultations for Category A projects – one at the scoping stage and one for the draft EIA.
5	Final EIA	Consider all comments received during public consultations, incorporate accepted remarks and explain rational when the comments are disregarded.	Consider all comments from Bank and public. Agree with the Bank on each raised point. Incorporate accepted public comments and explain rational when the comments are Disregarded
6	Management Plans	clear guidelines content and timing on format,	Incorporate Monitoring and Management Plans in the EIA.
7	Review and Approval	MEPA	Bank and separately – MEPA (if the EIA is required by Georgian legislation)
8	Disclosure of the final EIA	Not requested	Publication (mainly electronic) of the final EIA.

B.5. Harmonization of the ADB and Georgian Legislation Requirements

112. In order to comply with the both regulations – the ADB and Georgian legislation – the content of the EIA should comprise issues required in both regulations, thus complementing each other. The EMPs should therefore be elaborated as required by the ADB regulations. The assessment of the stationary sources of emission (e.g. diesel generators) should be executed according to Georgian regulations: "Inventory of the Stationary Sources of Emission" and "Approval of the Emission Limits". For the category A projects the first public consultation (requested by ADB guidelines, but not by Georgian regulations) will be held at the Scoping stage. The second one will be executed according to Georgian requirements. Disclosure will be conducted as required by ADB.

B.6. Administrative Framework

113. **Municipal Development Fund of Georgia (MDF)** – The municipal Development Fund of Georgia is responsible for elaboration of policy and strategic plans related to construction, rehabilitation, reconstruction of the project. Thus, the MDF is responsible for works on construction and rehabilitation of envisaged under the project and is responsible for ensuring compliance with the Georgian legislation and environmental and social requirements of the relevant donor organizations. Control of implementation of the Environmental Management Plan (EMP) is direct responsibility of the MDF. Within the MDF there is Environmental and Resettlement Division dealing with the environmental issues. This division is supposed to review the IEEs and EMPs related to the MDF projects and perform monitoring of compliance of the contractor's performance with the approved EMPs, IEEs, environmental standards and other environmental commitments of the contractor.
114. **Ministry of Environment Protection and Agriculture (MEPA)**- According to the Environmental Assessment Code of Georgia (Article 4) MEPA is responsible for all environmental protection issues and agriculture in Georgia. The responsibilities of the Ministry as the competent authority are: a) to intermit, limit, or stop any activity having or likely to have adverse impact on the environment, b) to carry out screening of planned development, c) to implement scoping, d) to issue environmental decision for project subject to EIA procedure, c) to control the execution of mitigation measures by the developer, d) 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. The ministry is responsible to supervise the adherence by the construction company to relevant environmental standards during project implementation process.
115. **Ministry of Culture, Sport and Youth of Georgia**- The ministry is responsible on supervision of the construction activities in order to protect cultural and archaeological heritage. In case if construction is to be carried out in a historic sites or security zones of cultural heritage, consent of the National Agency for as established by the Law on Cultural Heritage Preservation of Georgia (LEPL under the Ministry of Culture, Sport and Youth of

Georgia) is required for issuing construction permit (If such is necessary heritage (Article 5). **Local Government of Telavi** – Local government of Telavi municipality is responsible authorizing certain construction works within the city, as well as issuing acceptance acts for the new buildings. For project implementation, construction permit from local authority is required. Relevant permission for tree cutting (not included in Red List species), if required, should be issued also by Telavi Municipality city hall.

C. PROJECT DESCRIPTION

C.1. Category of the Project

116. According to Environmental Assessment Code of Georgia works for Reconstruction of Public Recreation Zones and Touristic Routes do not require Environmental screening and Environmental Impact Assessment. Despite the activities within the project are not subject to the EIA and environmental decision, they shall be implemented in accordance of provisions of different laws and regulations described in Part B.
117. The project triggers the "Safeguard Requirements 1: Environment" of ADB Safeguard Policy Statement. Environmental assessment and screening of the project was carried out in compliance with the requirements of ADB Environmental Safeguards Policy (2009) and based on experience from other similar IFIs funded projects. The IEE of proposed project showed that physical works to be implemented will not have any significant impact on the existing environment. Project envisages construction of new facility in well-developed urban area. The environmental impacts is expected to be insignificant and limited to construction areas and duration and can be easily mitigated. However, all potential impacts have been carefully assessed and mitigation measures identified.
118. All works envisaged by the project will be implemented within the land plot registered as municipal property. There are two state-owned buildings the rehabilitation and reconstruction of which are to be carried out within the project: Telavi State Vazha Pshavela Drama Theater and Telavi Elene Akhvlediani Children's Art School.
119. None of the works within the project will be implemented through or close to protected areas, Emerald sites and forest areas.
120. Environmental screening and preliminary categorization of the project was carried out in accordance with ADB's Safeguard Policy Statement, 2009 (SPS, 2009) and based on experience from other similar projects funded by IFIs, including ADB.
121. The risks, scale and likelihood of anticipated negative environmental impacts related to the project activities varies from low to medium (anticipated risks/impacts and their mitigation measures are described in Part E of this document). Therefore, the project is classified as Environmental Category B for which Initial Environmental Examination (IEE) is required. EMP for project is developed and included in the following IEE Report.

C.2. Description of the Project

122. The project envisages Reconstruction of Public Recreation Zones and Touristic Routes in Telavi city, Telavi Municipality (Kakheti region).
123. Attractive and organized environment will be created for tourism development in Telavi city. Namely, reconstruction, restoration and rehabilitation of several buildings and public parks, arrangement of pedestrian pathways connecting historical hills and bridges and improvement of streets is envisaged by the project design. The project will be

implemented at different locations of Telavi. Description of planned works on each site is provided below.



Figure 1. Location of project sites: 1. Zuzumbo and Dabaknebi hills; 2. Gigo hill; 3. Erekle II street (Vazha Pshavela theater, Elene Akhvlediani Art school, Zaira Kiknadze street); 4. Aleksandre Chavchavadze and Cholokasvili streets.

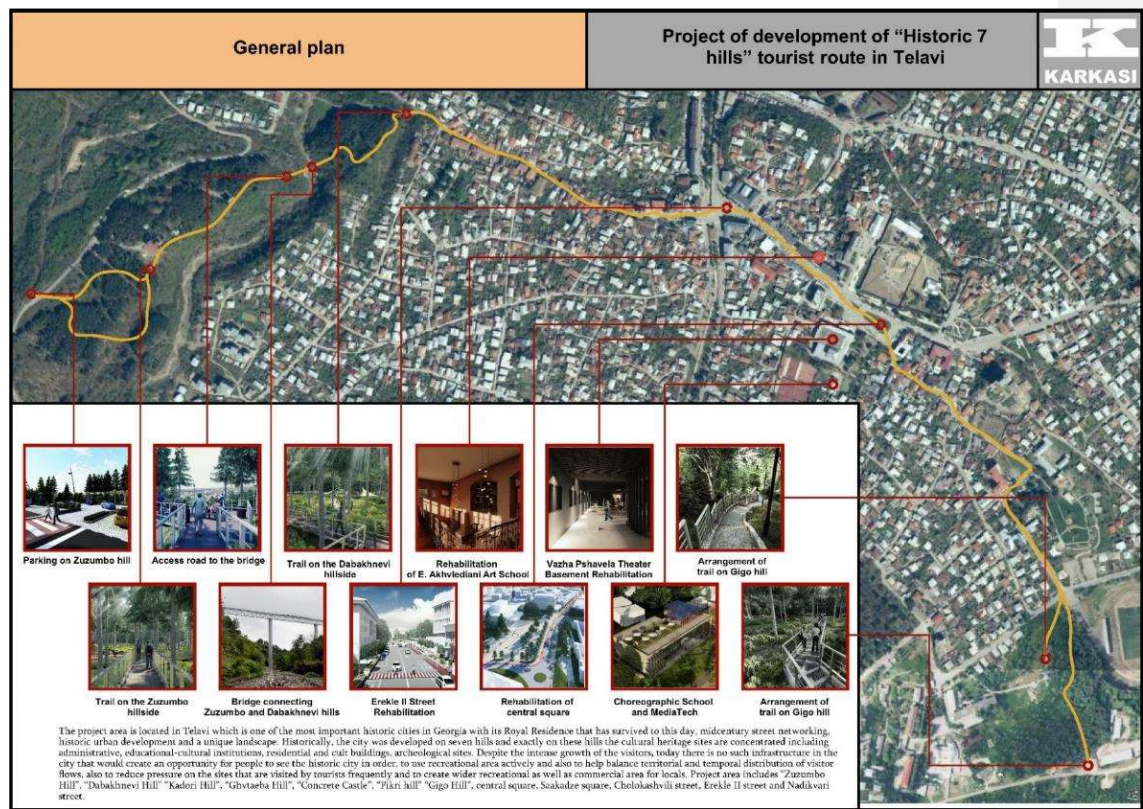


Figure 2. General Plan

124. Trails connecting Zuzumbo and Dabaknebi hills, arrangement of parking and construction of pedestrian bridge on the tourist routes. Zuzumbo and Dabaknebi hills are located on the west edge of Telavi city. The project envisages arrangement of parking, trails connecting Zuzumbo and Dabaknebi hills and arrangement of pedestrian bridge.
125. **Parking** to be arranged on Zuzumbo hill is starting point of touristic route. Arrangement of parking site is planned adjacent to existing local motor road, connecting Zuzumbo Hill and its settlements to the central part of Telavi city. The total area of land allocated for arrangement of parking lots is 457 m² and belongs to Telavi Municipality. The parking involves space for 16 cars (including 2 designed for disabled people), 2 buses. Grass pavement will be arranged that enables maintain green areas on parking pathway. Arrangement of stairs, lighting and handrails are envisaged as well.



Figure 3. Location of parking area



Figure 4. Area selected for parking arrangement



Figure 5. Render of the parking

126. **The Pathway** starts from the parking and lays through pine-tree forest to Dabaknebi hill. After arrangement of trails parking lot will connect directly to the war memorial. The total length of design trail is 747 m, which will pass through the existing pine forest. The pathway will be adapted to people with disabilities (PWD) and will have several entrances and exits from and to trail to enable people to go up and down from trail to forest area and backwards. Another pathway will be arranged from war memorial to the pedestrian bridge designed under the project. The trail will pass through the existing forest with difficult terrain, so the paths will be arranged between existing plantations by putting the big stones into the ground to avoid and minimizes interference in the exiting landscape. Due to difficult terrain of designed trail, it is impossible to adapt it to PWD. Trail from pedestrian bridge to Cholokashvili Street will be similar type of that in Zuzumbo Forest Park. Since

there are archaeological sites located nearby the project site, the trail was designed to minimize access to archaeological sites and avoid changes and removal of existing terrain. The trail will be of metal construction, with 396 meters length and 1.5 meters wide, and about 50-80 cm in height from the ground. Metal and stone stairs, recreational spaces with wooden seats and tables and stone decorative elements and illumination will be arranged along pathways.

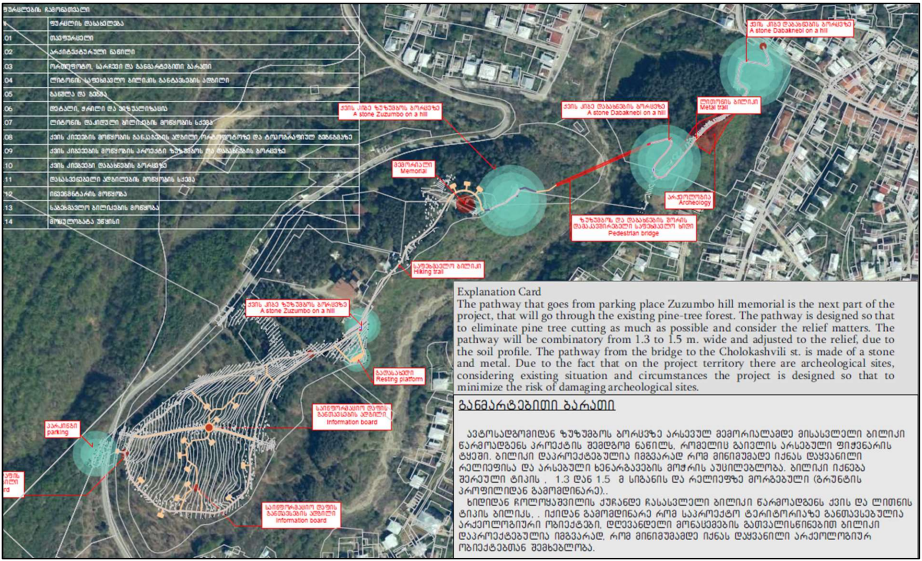


Figure 6. Location of the pathways



Figure 7. Area and render of pathway on the Dabakhnebi hill



Figure 8. Places for arrangement of the stone staircases



Figure 9. Places for arrangement of recreational spaces

127. **The Pedestrian bridge** will be arranged along pathway between Zuzumbo and Dabaknebi hills. The touristic pathway crosses Dabaknebi ravine between Zuzumbo and Dabaknebi hills, Depth of the ravine varies 30-35 m. The bridge will connect Zuzumbo Hill to Dabakhnevi Hill and consequently, to the rest part of the historic city of Telavi. The bridge will play the most important role in development of tourist route of the historic Seven Hills in Telavi. For arrangement of the bridge, a shortest distance above the ravine was selected. Design envisages construction of one span bridge, length of the span is 120 m. Total length of the bridge is 148 m. Width of the bridge deck is 1.0 m. Design bridge represents so-called suspension type.
128. **Rehabilitation of Givi Chokheli Memorial and Arrangement of footpath on Gigo hill.** Gigo hill is located on the southern edge of Telavi city. From the south Gigo hill is bordered by University Street and from the north – by Leonidze street. Givi Chokheli Memorial is located on the west-north part of the Gigo hill, between Leonidze and Marjanishvili streets. The project envisages rehabilitation Givi Chokheli Memorial and Public Park around the memorial, as well as arrangement of two trails with total length of 466 m on Gigo's Hill, one linking Nadikvari Street and the city bypass in direction to Zuzumbo Hill, and the other will be a staircase and a trail linking Nadikvari Street to the church at Gigo's Hill. The project includes following civil works:
- Facing of Givi Chokheli monument with new basalt plates;
 - Arrangement of stairs and paths in the public park around monument;
 - Arrangement of footpath crossing Gigo Hill from north to south direction (the footpath will start from public park around Givi Chokheli memorial and will end at the University Street);
 - Arrangement of stone stair on Gigo Hill;
 - Arrangement of wooden chairs and tables in the public park.



Figure 10. Location of Givi Chokheli Memorial and footpath to be arranged



Figure 11. Givi Chokheli Memorial and public park, existing situation



Figure 12. Givi Chokheli Memorial and public park, renders

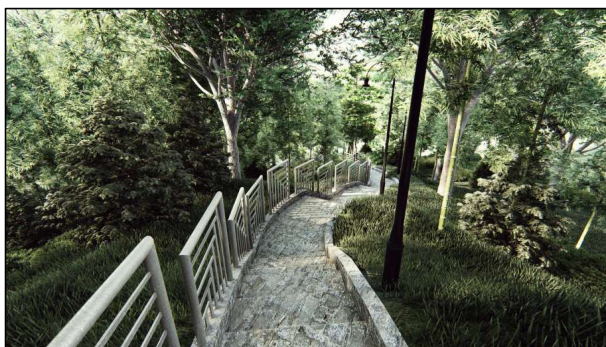


Figure 13. Footpath of Gigo Hill, render

129. **Elene Akhvlediani's Art School internal Rehabilitation.** The Elene Akhvlediani art school is located on the avenue of Erekle II. The building represents cultural heritage monument – the residential house built in XIX century. Telavi Children's Art School has been operating in this building for many years. The exterior of the building was restored in recent years. The building has three floors. Basement is filled with soil. The project envisages rehabilitation of the interior of the Elene Akhvlediani art school. The rooves among the rooms will be replaced, soil will be removed from basement and exhibition hall arranged. Rooms will be restored and equipped. Extra spaces will be provided on the ground floor for education. Water supply, waste water systems and heating systems will be arranged as well. Water will be provided from the central network and sewage system will be connected to the existing network by gravity flow.



Figure 14.Elene Akhvediani Art School location



Figure 15. Elene Akhvediani Art School exterior and basement



Figure 16. Renders of rehabilitated interior

130. Rehabilitation of the Vazha Pshavela Theater basement. The project envisages arrangement of exhibition and conference halls in the basement of Vazha Pshavela theater in Telavi with total area 450m². The space is nonfunctional currently. The reconstructed basement will be connected to the public park around the theater with independent access. Arrangement of toilet is envisaged as well. Ceiling of the reconstructed basement will be arranged by wavy, light and half transparent material. Central heating, conditioning, ventilation systems will be placed between existing concrete ceiling and new one. The walls will be covered with concrete tiles, and the floor will be arranged with concrete and wood details. The project also includes arrangement of staircase to the basement.

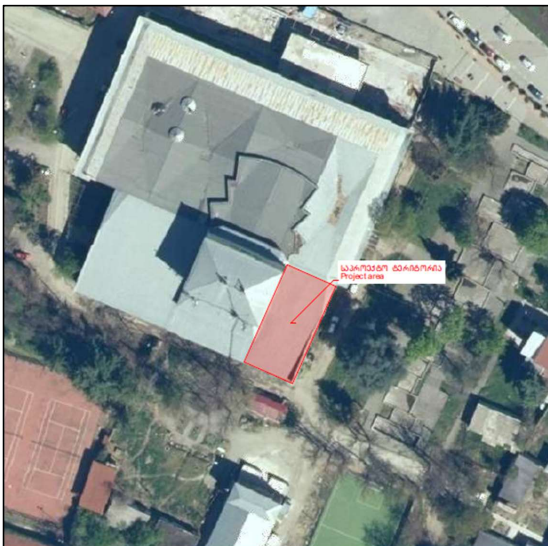




Figure 17. Location of Vazha Pshavela Theater, existing situation and render of basement

131. **Rehabilitation of the public park near the Vazha Pshavela Theater in Telavi.** Public park to be rehabilitated within the project is located on Erekle II street adjacent to Vazha Pshavela Theater. Concrete terraces, stairs, entrance ramps, children's playground, edges, basal pavements, garden seats will be arranged in the public park within the project.

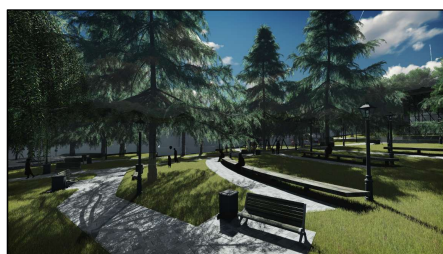
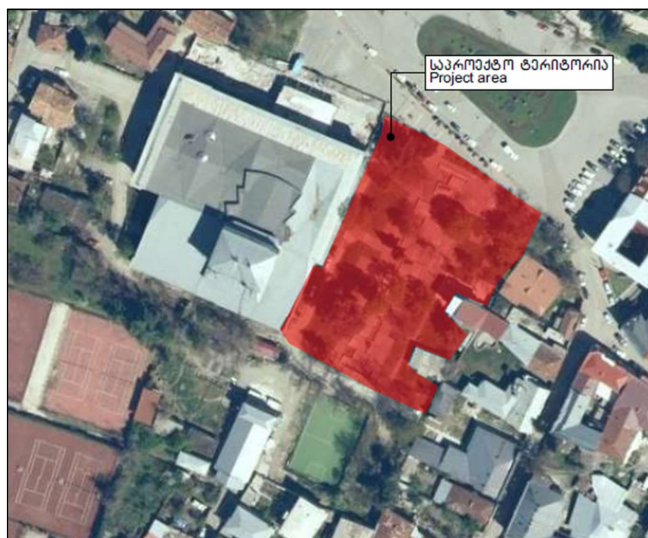


Figure 18. Location, existing situation and render of the public park

132. **Rehabilitation of Erekle II Street and Square in Telavi.** Rehabilitation of Central Square and the adjacent area includes arrangement of the transport node whereby a major part of the existing circular motion area will be joined to pedestrian area in front of Vazha

Pshavela Drama Theater. The enlarged recreational space will enable the city to host various events (fairs, exhibitions, Skate Park, children's activities and musical events). Also, there will be arranged a fountain to the west side of Batonis Tsikhe. The total project area is 24 700 m² and is owned by local government. On the central square in the front of Vazha Pshavela Theater, as well as on the Erekle II street old pavement will be demolished. Car lines and bikeway, lighting, wooden seats, as well as green lines and areas will be arranged. Pedestrian areas will paved by natural stones (tuff and granite).



Figure 19. Location of Erekle II street and central square



Figure 20. Existing and reconstructed Central Square



Figure 21. Renders of reconstructed Central Square and Erekle II street

133. Arrangement of paving on the streets adjacent to Cholokashvili and Kiknadze streets. The streets to be rehabilitated within the project are located in the central part in Telavi city. Kiknadze street is located adjacent to Elene Akhvlediani Art school. Old pavement and concrete stair will be removed on Kiknadze street and new stair, lighting pavement with granite tiles (1077m²) will be arranged. 2410 m² granit tile pavement and lighting will be arranged on Aleksandre Chavchavadze and Bidzina Cholokashvili streets.



Figure 22. Location of Zaira Kiknadze street and existing concrete stairs



Figure 23. Location of Chavchavadze and Cholokashvili streets and existing pavement

C.3. Organization of construction

134. Prior to the onset of the core works, the organization and technical issues will be solved to provide a field of construction operations. Preparatory works envisage temporary fencing of the construction area and arrangement of temporary buildings (construction camp).
135. For construction following construction machines/mechanisms will be mobilized –concrete mixer truck, concrete pump, bulldozer, excavator, etc.
136. During the preparation period processed following works should be: enclose of the project site, arrangement of water- and power supply, construction of temporary facilities, such as security both, open warehouse, dressing rooms for workers, toilets.
137. The civil works duration is defined as 12 months.
138. An important stage of the project implementation is the management of different types of waste originated in the course of the construction. After the construction works are complete, the construction camps and other temporary facilities will be demobilized, the cultivation works will be done and the landscape will be harmonized.

C.4. Dumpsites

139. Dumpsites are not selected yet. Municipal solid waste landfill, managed since 2013 by the Ltd "Solid Waste Management Company of Georgia", is located in village Vardisubani. The landfill is fenced, access and internal roads rehabilitated. Existing waste is covered by soil.
140. More than 24 000 tons of excess ground and construction waste will be generated due to the project implementation. It is expected generation of asbestos contained waste as well, mainly due to removing of old roofs and communications. Construction waste will be transported and disposed on the Municipal solid waste landfill, managed by the Ltd "Solid Waste Management Company of Georgia", that is located in Vardisubani. Asbestos

containing waste must be removed, packaged, stored, transported and disposed by the licensed company in accordance with the technical regulations on Special Requirements for Collection and Processing of Hazardous Wastes approved by the GoG Resolution # 145, dated March 29, 2016 and GoG resolution #421, adopted August 11, 2015 ``On Approval of the Technical Regulation on Landfill Arrangement, Operation, Closure and Post-Maintenance``.

C.5. Access Roads

141. All of the project sites have access from the existing roads and streets and arrangement of the new roads is not required. The streets are in good condition. As already mentioned, the project area is located in urban area: Detailed traffic management plan shall be developed by contractor in accordance with his proposed working methodology and submitted to the engineer for approval. In case of damage the Contractor is obliged to recover/reinstate these roads and/or other local infrastructure, and agricultural lands.

C.6. Disposal of Soil Material

142. More than 24,000 tons of excess ground and construction inert waste will be generated due to the earthworks. According to the waste management code of Georgia inert waste can be used for backfilling activities according to written agreement with local authority.

C.7. Camp and Storage Areas

143. Camp and storage areas will be arranged on the project site. Camp site management plan will be prepared by the construction contractor before commencement of construction activities. Location of the camp site should be agreed with MoEPA and approved by the ADB.
144. When identifying the sites for the construction camps, the following issues must be taken into account:
 - Near location of the road to the construction site.
 - Availability of communications (water- and power-supply, existing roads, etc.).
 - Satisfactory natural conditions (plane relief, less vegetation, less soil cover).
 - Sufficient distance to the sensitive receptors (houses, protected areas, etc.) so that the expected impacts caused by noise, emissions and vibration are minimized.
 - Category of the site owner and land plot (state lands must be preferred; however, relevant agreements with private entities are also an option).
145. The care must be taken to ensure that the construction camps are not used for living. Warehouses, offices, parking area, plant and equipment needed for the construction works, etc. will be provided at the camps.

146. The Contractor will provide the following basic facilities in the construction camps:

- Safe and reliable water supply.
- Hygienic sanitary facilities and sewerage system.
- Facilities for sewerage of toilet and domestic wastes.
- Storm water drainage facilities.
- Sickbay and first aid facilities.
- Recreational areas.

147. The following are general construction activities that will be undertaken:

- (i) Land works including excavation for building foundation
- (ii) Building construction works including arrangement of the monolithic reinforced concrete plate of the foundation, monolithic reinforced concrete walls, roofing;
- (iii) Interior and exterior finishing works of the buildings, including walls insulation, arrangement of floors, internal stairs, windows and doors, arrangement of green roof; Installation of internal and external water supply, wastewater, heating and cooling, electricity and ventilation, security alarm, fire alarm and video surveillance systems and elevator;
- (iv) Arrangement of the yard path and installation of the outdoor lighting system.

D. ANALYSES OF ALTERNATIVES

148. The following section provides an assessment of different alternatives including the 'no action' alternative.
149. The project area is located in Telavi, which is one of the most important historical cities in Georgia with its Royal Residence that has survived to this day, mid-century street networking, historical urban development and a unique landscape. Historically, the city was developed on seven hills and exactly on these hills, the cultural heritage sites are concentrated including administrative and educational-cultural institutions, residential and cult buildings, archeological sites. Despite, the visitors' intense growth, the infrastructure provided there today is not sufficient to serve the touristic flows and cannot create opportunity for people to use recreational area actively and to help to balance territorial and temporal distribution of visitor flows. Also, to reduce pressure on the sites that are visited by tourists frequently and to create wider recreational as well as commercial area for locals.
150. The project will play the most important role in development of a new tourist route and public-recreational spaces, tourist facilities including rehabilitation-reconstruction of public friendly spaces and development of new public areas in the historical part of Telavi City, along the Project route. Project will have a positive impact on the economic development of the city, by increasing the number of local and foreign visitors, through development of businesses and creation of additional working places. The project is expected to have long-term positive impact on the population and visitors of Telavi city through improvement of local residents' living condition and creation of additional cultural-educational and working places.
151. No action or a zero alternative implies refusal to the project implementation, therefore the problem related to providing abovementioned public services for local population and visitors of city Telavi will remain unresolved.
152. **No action or a zero alternative** implies refusal to the project implementation, therefore the problem related to maintenance of the historical-cultural values of Telavi City and providing abovementioned public services for local population and visitors of Telavi City will remain unresolved. Additionally, declining in urban population experienced in the secondary cities of the regions, deteriorating livability in cities will remain as a problem. That will cause unbalanced economic growth, limited employment opportunities and poor livability of the project region, deficient regional connectivity and public transport, limited tourism development, inadequate Infrastructure and inefficient services, limited accessibility, safety and sensitive design of public spaces and buildings for differently abled, senior citizens, women and children, inadequate disaster risk reduction measures, deteriorated heritage structures and ecological sites, insufficient vocational and recreational facilities, unattractive and limited public open spaces, low energy efficiency in buildings and utility facilities, limited municipal revenue and resources. Eventually, stagnant and unbalanced regional growth, high level of out-migration from regions and in-migration to Tbilisi environmental degradation and climate risk and untapped tourism potential have been affected.

153. Parameters of the Streets and adjacent lines were specified based on conducted studies. The number of reconstructed buildings, the degree of damage and the types of possible construction-reconstruction works were determined.. After rehabilitation of the historic parts of Telavi City, the flow of tourists is expected to increase, which requires additional parking spaces for both large buses and cars. Therefore, arrangement of parking area is included in the project design as well.

E. BASELINE ENVIRONMENT

E.1. General Description

154. Telavi is the administrative and economic center of Kakheti, located in Eastern Georgia, 160 km away from Tbilisi and the city is a medium size. It is located in the river Alazani basin, on the north-east slope of the Tsiv-Gombori Ridge. Historically, the Telavi city is developed on seven hills and exactly on these areas the cultural heritage sites are concentrated including administrative, residential and cultural buildings, educational-cultural institutions, archeological sites and etc. There are 180 cultural heritage monuments in Telavi. Telavi is famous tourist destination and number of tourists is increasing. However, visits are short-term (1-2 days). Further development of tourism infrastructure as well as diversification is highly required.
155. The area of Telavi Municipality is 1095 km², of which 33,156 ha are agricultural lands. It unites the city of Telavi and 29 villages. There are 5 (five) large villages in the municipality with a population of more than 2500 (two thousand five hundred) people.
156. The project area is located in the central part of Telavi City and includes several sites such as Zuzumbo, Dabakhnebi and Gigo Hills, central square, Erekle II Avenue and Cholokashvili and Kiknadze Streets.
157. None of the works within the project will be implemented through or close to protected areas, Emerald sites and forest areas.
134. The main risk related to the implementation of this project is damaging historic and aesthetic value of the cultural heritage sites nearby of which civil works will be implemented. Archeological sites revealed on Zuzumbo and Dabakhnebi hills, Batonis Tsikhe fortress and other cultural heritage sites located in close proximity of the project sites seems to be main sensitive receptors.
135. The project envisages rehabilitation of Erekle II, Cholokashvili and Kiknadze streets are foreseen, where a number of cultural heritage monuments and objects are located. Also, there will be arranged a fountain to the west side of Batonis Tsikhe which is an architectural monument. Moreover, rehabilitation of cultural heritage site - Telavi Elene Akhvlediani Children's Art School is planned. As project plans interventions within the cultural heritage monuments and will be implemented in the areas having high historical and cultural importance, the project triggers ADB SPS environmental policy principle on physical cultural resources (PCRs). According to the requirements of Georgian legislation the project design shall be agreed with the National Agency for Cultural Heritage Preservation of Georgia (NACHP). Therefore, the project design has been agreed with the Agency for Cultural Heritage Preservation of Georgia and confirmation letter (dated 30.10.2020 N12/3800) on approval of works to be undertaken on Telavi Elene Akhvlediani Children's Art School has been obtained. NACHP has reviewed the revised sketch design for indoor rehabilitation works for Elene Akhvlediani Art School. As a result, it was noted that rehabilitation works of the building can be executed based on the documents

submitted. Clearing of the lower floor off earth may identify new circumstances which shall be reflected under design documents during the construction stage. NACHP has also reviewed detailed design of Rehabilitation of Public Recreation Zones and Touristic Routes in Telavi and provided confirmation letter on December 19, 2019 for the envisaged works with the recommendations to be considered during the construction phase.

158. Part of the project will be implemented within the Zuzumbo Forest Park – artificial plantations of Kokh (*Pinus Kochiana*) and black pine (*Pinus nigra*). Oriental hornbeam (*Carpinus orientalis*) forms the natural vegetation on Zuzumbo Hill. Few trees of field elm (*Ulmus minor*) included in Red List of Georgia as vulnerable species were identified on Zuzumbo hill.
159. A local population living in proximity to the project area are most likely to be impacted by the project's development activities, which is related to the noise and emissions generation and traffic influx. However impact of this adverse effects can be minimized by proper implementation of mitigation measures.

E.2. Geology, Geomorphology and Hazardous Geological Processes¹⁴

160. According to geomorphological zoning of Georgia, the project area belongs to erosive relief of Gombori anticlinal Ridge, Neogene period depression zone.
161. Tsiv-Gombori Range is a large young anticline developed on the substrate of Pliocene Molassa deposits. These deposits are situated in unconformity on the Cretaceous and Paleogene complex-folded flysch deposits. In the crest part of Tsiv-Gombori ridge and upper step of its northern slope, there are fragments of plain-wavy watersheds and denudation surfaces are surviving.
162. In terms of geotectonics the project area belong to Alazani depression sub-zone, Measia-Tianeti zone, folded system of the south slope of the Greater Caucasus. Lithologically the region is presented by Akchagilian and Apsheronian (N2ak-ap) conglomerates on clay cement and clay lenses and interlayers, covered by alluvial-diluvial-proluvial deposits.
163. According to standard "Seismic engineering" (PN01.01-09) the region is located within the most high risk zone of 9 grade earthquake intensity.
164. According to engineering-geological zoning of Georgia the study region belongs to eastern zone of Georgian belt depression, the region of Neogene period rocky and semi-rocky, marine and continental molasse deposits.
165. In terms of hydrogeological zoning of Georgia the study region belongs to hydrogeological district of fissure and karst-fissure water, Alazani artesian basin of Georgian belt.
166. There are no geo hazard areas and hazardous geological processes within the Project

¹⁴ Investigation of Engineering-Geological Conditions of the Construction Site, 2019

area.

E.3. Climate and Air quality

167. The climate in Telavi is humid subtropical, summers are hot with an average temperature of +25 °C, and in winter, the average temperature is +2 °C. Average annual precipitation is 794 mm, maximum daily precipitation is 147 mm. The average annual wind speed is 2.40 m/s. Frequency of prevailing winds: easterly 16%, southeasterly 10%, southerly 12%, southwesterly 22% and westerly 19%. Number of days with snow cover – 33 days.
168. There are no significant air pollution sources near the site and, in general, in Telavi municipality.
169. Automatic station for ambient air pollution monitoring is not installed in Telavi. Indicators measurements are carried out four times a years for different pollutants (nitrogen and sulfur dioxides, ozone). According to the National Environmental Agency data air quality in city Telavi varies from fair to good index (<http://air.gov.ge/>). For example, in June 2020, as a result of indicator measurements conducted at the Erekle II street, the concentration of NO₂ did not exceed 15,97 µg/m³ and ozone concentration was 108,19 µg/m³.

Table 14. Average annual concentrations of pollutants, results of indicative measurement, 2018, source: National Environmental Agency

	NO ₂ (µg/m ³)				SO ₂ (µg/m ³)				O ₃ (µg/m ³)			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
Agmashenebeli street	48.10	53.73	56.63	50.29	2.46	2.36	2.17	2.83	43.38	38.41	54.57	17.45
Near King Erekle Monument	26.98	45.47	39.00	35.79	2.46	2.36			48.08	41.87	60.30	23.77
At the Gurjaani road	22.10	31.55	20.38	27.90								

170. Baseline measurements for air quality will be conducted in the project area before commencement of the construction works and the results will be reflected in the SSEMP. The measurements should be conducted at the following locations:
- Zuzumbo and Dabakhnebi Hills;
 - Gigo Hill;
 - Erekle II Street;
 - Chavchavadze and Cholokashvili Streets.

E.4. Noise and Vibration

171. Noise and vibration baseline measurements will be conducted by civil works contractors before starting of civil works to identify background level and the results will be reflected in the SSEMP. The measurements should be conducted at the following locations:

- Zuzumbo and Dabakhnebi Hills;
- Gigo Hill;
- Erekle II Street;
- Chavchavadze and Cholokashvili Streets.

Noise and vibration levels, generated by operation of the various construction machines/mechanisms at various stages of construction will be assessed. Considering the background noise, the expected level of noise caused by construction will be assessed at the nearest residential buildings. The contractor will develop site-specific noise management plan. Site-specific noise and vibration management plan will include results of baseline survey, noise level assessment and appropriate mitigation measures (if any) to be introduced based on the results. The contractor will conduct monitoring of the noise and vibration level during the construction. Based on monitoring results site-specific noise management plan will be updated and appropriate mitigation measures defined and implemented (if needed).

E.5. Hydrology

172. Telavi city is located in the Alazani river catchment area. The Telavis Khevi river, which originates on the northern slope of the Tsiv-Gombori ridge, intersects the city of Telavi in the middle and flows to the Alazani river. The length of the Telavis khevi river is 21 km. Within the city river flows through artificial bed.
173. Another water body located on the project site is Dabakhnevi khevi which originates on the north-east slope of Tsiv-Gombori range and flows into Matsantsara river from right side. The project envisages construction of pedestrian bridge on Dabakhnevi ravine. The Dabakhnevi khevi has two minor tributaries. The river valley has direction to a North-East. It is deeply embedded in the terrain. Near design bridge the height of ravine bank is 10-12 m and ravine is dry for a long period of the year.
174. Both Telavi and Dabakhnevis rivers are fed by snow melt and rain, characterized by flood in the spring and autumn and unstable low waters (mostly dry) in summer.
175. On the Telavis khevi river-bed, approximately in 2 km from the city and above it, three deterrent power erections are arranged in every 250-300 meters to prevent mudflow risks. All these three erections are technically in good condition.

E.6. Soils

176. On the left side of the Alazani valley is developed meadow-forest noncarbonated alluvial soil and on the right side the alluvial carbonate soil. Brown soil is developed in the foothill zone. In the Caucasus range and in the lower of slopes under broad-leaved forest is developed gray forest soil.
177. The project sites should be assessed by an expert, the amount of the top soil has to be calculated, a temporary storage place identified and Soil Re-cultivation Plan developed.
178. Soil baseline measurements will be conducted by civil works contractors before starting of civil works to identify background level and the results will be reflected in the SSEMP. The measurements should be conducted at the following locations:
 - Zuzumbo and Dabakhnebi Hills;
 - Gigo Hill;
 - Erekle II Street;
 - Chavchavadze and Cholokashvili Streets.

E.7. Biological Environment

179. Major parts of the project activities will be implemented within the strongly modified urban area. Only two project areas are covered by natural vegetation – Zuzumbo and Dabakhnebi hills and Gigo Hill.
180. Vegetation on Zuzumbo and Dabakhnebi hills is presented by artificial plantations of Kokh (*Pinus Kochiana*) and black pine (*Pinus nigra*). Oriental hornbeam (*Carpinus orientalis*) forms the natural vegetation on Zuzumbo Hill. Few trees of field elm (*Ulmus minor*) included in Red List of Georgia as vulnerable species were identified on Zuzumbo hill. Other species in small quantities are presented here: field maple (*Acer campestre*), common Spindle (*Euonimus europeus*), georgian oak (*Quercus iberica*), mespilus (*Mespilus germanica*), swida (*Swida australis*), red hawthorn (*Crataegus*), pear (*Pyrus caucasica*), Blackberr (*Rubus* ssp.).
181. There are several Protected areas in Telavi municipality, Mariamjvari Nature reserve and Batsara-Babaneuri Protected areas among them. They are far from the construction site and there will be no impact on them. Closest Protected Area: Mariamjvari Nature reserve is located about 16 km away from the construction site.

E.8. Socio-Economic Environment

Population

182. Based on the data of the National Statistics Office, according to 2020, 55,3 thousand persons live in Telavi Municipality. Natural decrease of population was observed both in urban and rural areas of Telavi municipality. Age composition of Telavi municipality population (total amount 58 350) is as follows: 17% - children and adolescents younger

than 14 years; 17% - people older than 65 years; 66% - able-bodied population. 34% of the Telavi municipality population lives in city Telavi.

183. Internal and external migration of the population is observed in the municipality. The population passes to other cities of Georgia (mainly in Tbilisi) and abroad. Migration has a negative impact on the population demography in general and, in particular, on the skilled workers and youth, who leave the municipality.

Employment

184. The level of employment and activity in Kakheti is higher than the average indicator of Georgia, whereas level of unemployment is lower. This is mainly due to the number of people employed and self-employed in the agricultural field.
185. Telavi municipality provides jobs for 40% of employees in the Kakheti region.

Table 15. Economic Activity Level in Kakheti Region for 2014-2015 (thousands person and %), National Statistics office of Georgia, 2018

	Kakheti	Georgia
Total active population (workforce)	177.4	1939.9
Hired	170.5	1694.2
Self-employed	121.0	833.4
Undefined	0.0	0.6
Unemployed	6.9	245.7
Unemployment Rate (%)	3.9	12.7
Activity Rate (%)	70.2	63.9
Employment Rate (%)	67.5	55.8

Economics

186. The main sectors of the economy are trade, agriculture and tourism. Livestock, viticulture and cereals production are main directions of agriculture. Industry, including wineries, plays an important role in the economy of the municipality. Out of 42 industrial enterprises, 28 are small and medium wineries, 31 are family wineries. The total amount of products exported by them reaches 15 million bottles per year, which is about 20% of all Georgian exports. In addition, cheese and dried fruits are exported to different countries. According to the registered entities, the main sectors of the local economy are trade (53%), agriculture (28%), industry (5%), construction (5%) and 9 services (9%). There are 38,576 hectares of agricultural land in Telavi Municipality. 39% of these areas are pastures, 35% arable, 19% perennials.
187. The economy of the Telavi city depends on agriculture, as the surrounding areas are agriculturally beneficial and it creates a good condition for its development. Telavi is well known for its ancient history of wine production. There are 4 factories of wine that are producing world famous Kakheti wine.

188. There are no large industrial facilities in the vicinities of project area.

E.9. Infrastructure

Transportation

189. The proximity of the city of Telavi to the capital of Georgia, Tbilisi, and Tbilisi International Airport is noteworthy. Distance between the administrative center and the capital - 149 km (Telavi - Bakurtsikhe - Tbilisi (2 hours and 28 minutes), and the road through Gombori Pass - 94 km (1 hour and 49 minutes) .The distance to Tbilisi International Airport via Gombori Pass is 83 The average travel time is 1 hour and 30 minutes per kilometer. Telavi Municipality has a railway infrastructure and Mimino Airport, from where short-haul flights are operated, for example to Tusheti.
190. There are 4 transport organizations operating on the territory of the municipality. One of these companies serves intercity routes, and three - inter-municipal and inter-district routes.
191. Telavi serves several lines of the municipal (free) bus, which is convenient for tourists. The city has an airport and railway as well

E.10. Education

192. 26 public schools and 31 private schools are registered in Telavi municipality. One of them is located in village Kurdgelauri.
193. Iakob Gogenashvili Telavi State University is located in city Telavi. There is also one professional college ``Prestige``.
194. There are 31 kindergartens in Telavi Municipality, 9 of them are located in the city of Telavi, and the rest in different villages.

E.11. Cultural heritage

195. Telavi Municipality is distinguished by the plenty of cultural heritage monuments. Here are Bronze Age settlements, medieval temples and castles.
196. Historically, the Telavi city is developed on seven hills and exactly on these hills the cultural heritage sites are concentrated including administrative, residential and cultural buildings, educational-cultural institutions, archeological sites and etc. Project area includes historic districts of Telavi, among them Zuzumbo hill, Erekle II and Cholokashvili street.
197. There are 180 cultural heritage monuments in Telavi city. Elene Akhvlediani Art school to be rehabilitated within the project is among them.
198. Batonis Tsikhe fortress - 17th–18th century architectural monument in Telavi is placed near the project area. The Batonis Tsikhe complex contains surviving sections of the palace of the kings of Kakheti, two churches, fortress and a museum with

archaeological and ethnographic exhibit.

199. The significant monuments of Georgian cultural heritage are located near Telavi – Old and New Shuamta Monasteries, Tsinandali Museum, Ikalto and Alaverdi monasteries. Together with other cultural heritage monuments located in Kakheti the mentioned places provide attractive touristic circuits for local and international visitors.
200. The project includes arrangement of pedestrian pathways in the vicinity of archeological site on Dabakhnebi hill to create new sightings for the town. There are remains of medieval building revealed during archeological works in 2018-2019. Archeological site dated late Bronze-Early Iron age is revealed on Zuzumbo hill.
201. The project envisages rehabilitation of Erekle II, Cholokashvili and Kiknadze streets are foreseen, where a number of cultural heritage monuments and objects are located, Also, there will be arranged a fountain to the west side of Batonis Tsikhe which is an architectural monument. Moreover, rehabilitation of cultural heritage site - Telavi Elene Akhvlediani Children's Art School is planned. As project plans interventions within the cultural heritage monuments and will be implemented in the areas having high historical and cultural importance, the project triggers ADB SPS environmental policy principle on physical cultural resources (PCRs). According to the requirements of Georgian legislation the project design shall be agreed with the National Agency for Cultural Heritage Preservation of Georgia (NACHP). Therefore, the project design has been agreed with the Agency for Cultural Heritage Preservation of Georgia and confirmation letter (dated 30.10.2020 N12/3800) on approval of works to be undertaken on Telavi Elene Akhvlediani Children's Art School has been obtained. NACHP has reviewed the revised sketch design for indoor rehabilitation works for Elene Akhvlediani Art School. As a result, it was noted that rehabilitation works of the building can be executed based on the documents submitted. Clearing of the lower floor off earth may identify new circumstances which shall be reflected under design documents during the construction stage. NACHP has also reviewed detailed design of Rehabilitation of Public Recreation Zones and Touristic Routes In Telavi and provided confirmation letter on December 19, 2019 for the envisaged works with the following recommendations to be considered during the construction phase:
 - Zuzumbo Hill, over which the car parking is to be arranged (Cadastral Code 53.20.39.192 - XY 41.916982, 45.451964), represents one of the ancient historical districts of Telavi Town, which has drawn the attention of archeologists since the 60-70-ies of the XX century. The former dwelling area (G. Lomtadze, Ts. Chikoidze) and the graveyard (N. Tushabramishvili) of late bronze-early Iron Ages have been identified there. Hence, parking area shall be explored through test archeological trenches prior to construction commencement. Archeological excavation-documenting shall be conducted thoroughly, in case the cultural layers are identified.
 - Zuzumbo and Dabakhnebi Connecting Bridge (Cadastral Code: 53.20.39.155, 53.20.46.379 XY 41.916982, 45.451964). It undergoes construction over the

site of two historical districts. Respectively, earthwork shall be supervised by an Archeologist.

- The pedestrian path is to be placed on top of Dabakhnebi Hill (53.20.46.379 XY 41.920877, 45.461071), representing the archeological site. The survey-archeological works dated 2018-2019, identified medieval aged structures (N. Tushabramishvili) that have been studied partially. Since the path passes directly next to archeological objects, it is significant these objects to be studied archeologically, proper preservation to be ensured and visual appearance to be regulated in order tourist potential of the town to be increased. In the course of the path arranging, the earthwork shall be supervised by an archeologist.
- The Fountain at Erekle II Square (Cadastral Code: 53.20.37.499 XY 41.918496, 45.473719). The area is located in direct vicinity of "Batonis Tsikhe" Complex, which in its turn represents the architectural monument. Therefore, area shall be explored through test archeological trenches prior to construction commencement, and in case of cultural layers identification, it shall be thoroughly studied archeologically.

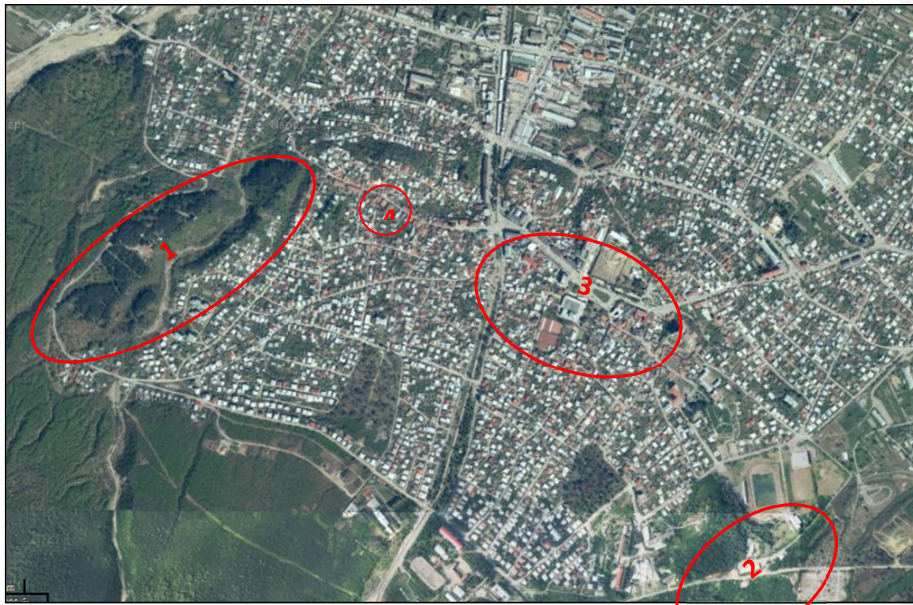


Figure 245. Location of project sites: 1. Zuzumbo and Dabaknebi hills; 2. Gigo hill; 3. Erekle II street (Vazha Pshavela theater, Elene Akhvlediani Art school, Zaira Kiknadze street); 4. Aleksandre Chavchavadze and Cholokasvili streets.

E.12. Tourism

202. Kakheti is one of the most popular regions of Georgia that has high and varied attractiveness for travelers. The density of heritage sites, wine cellars, natural resources, cultural attractions and the geographic location of the region provides significant potential for further development of Kakheti's tourism sector. The region is especially popular with Georgian visitors whose share in total visits amounted to 55% in 2018. The number of international tourists is increasing as well. In 2018 – currently the latest year for which the data is available – nearly 20,000 visitors came from the EU countries, more than 30,000 traveled from CIS and the remaining 33,000 were from Middle East, Asia and the Americas; each of these groups experienced 1-3% y/o/y growth in numbers between 2017 and 2018. There is evidence that massive hospitality development and rehabilitation projects boost tourism in Kakheti. This is instigated by rehabilitation of the major cities and touristic locations, like Signagi, Telavi, Kvareli.
203. In terms of tourism, Telavi is one of the most distinguished parts of Georgia. As in Georgia as a whole, Telavi has an annual increase in tourist flows. According to 2017 data, the number of tourists entering the Kakheti region varies from 16 to 70 thousand every month, of which about 70-80% visit Telavi. Although Telavi is a tourist-active municipality, short-term visits (1-2 days) are a problem due to the lack of tourist infrastructure and the need for diversification of tourist destinations. The most active areas of tourism are: wine, health, cultural and gastronomic tourism. Further development of tourism infrastructure as well as diversification of directions is highly required.

F. ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

F. 1. Methodology

204. The IEE process consisted of the six main activities that are common for similar studies conducted according to the international standards:
1. Collection of baseline data describing biophysical and social environment within the study area; desk studies and field surveys to address identified gaps in the existing data; update of information on topics and areas where significant negative impacts are expected.
 2. Identification of the expected positive and negative impacts of the proposed works; assessment of the likelihood and significance of the potential negative impacts; and development of mitigation measures.
 3. Analysis of alternatives in terms of location, technology, design and operation, including the "no-project" alternative.
 4. Development of the Environmental Management Plan.
 5. Drafting of the IEE report.
 6. Information disclosure and stakeholder consultation
205. The description of each impact will have the following features: (i) Type of activities (ii) scale of activities; and (iii) project area.
206. The general methodology used for impact assessment is described in Attachment 1. It describes the process of impact identification and definition, significance rating, the mitigation, management and good practice measures. Wherever the Project is likely to result in unacceptable impact on the environment, mitigation measures are proposed (over and above the inherent design measures included in the Project description). In addition, good practice measures may be proposed however these are unlikely to change the impact significance. In the case of positive impacts, management measures are suggested to optimize the benefits to be gained.
207. The following mitigation hierarchy will be utilized in selecting practical mitigation measures for unacceptable impacts as follows (in order of preference):
- I. Avoid the impact wherever possible by removing the cause(s).
 - II. Reduce the impact as far as possible by limiting the cause(s).
 - III. Ameliorate the impact by protecting the receptor from the cause(s) of the impact.
 - IV. Providing compensatory measures to offset the impact, particularly where an impact is of high significance and none of the above are appropriate

F.2. Summary of Activities and Anticipated Impacts

208. This project will have a positive impact on population of Telavi City through improved access to green public and educational spaces and touristic attractions.
209. Some temporary impacts associated with construction works will occur. To deal with those impacts during pre-construction, construction and operation phases, mitigation is proposed as necessary and described in this chapter. Activities to be performed within the scope of the Project were examined in 3 phases:

Phase 1: Pre-Construction activities

210. The potential environmental effects of the pre-construction activities, such as contractor office set ups, necessary equipment stacks, sites preparation, and the adequacy of the accesses have been considered and all these activities will not deteriorate the existing conditions of the environment.
211. Number of pre-construction surveys, including noise and vibration, soil contamination, air pollution, field survey of flora and fauna species will be carried out by contractor prior to the commencement of construction works. The construction contractor is obliged to submit recording and photo-documentation of all worksites prior to construction.

Phase 2: Construction works

212. Environmental effects likely to occur during the construction of the Project are noise, vibration, dust, solid and liquid wastes, Community health and safety will be an important issue during construction phase as residential buildings are located near the project site. Effects likely to occur during the construction phase are short term effects and they cannot deteriorate the existing conditions. The contractor will required to execute works in compliance with applicable environmental standards and to restore and re-instate any disturbed areas to pre-works conditions or better. Construction contractor will be required to execute works in compliance with applicable environmental standards and restore and re-instate any disturbed areas to pre-works conditions or better.

Phase 3: Operation

213. Possible environmental effects during operational phase arise from maintenance of arranged infrastructure and will be related to generation of solid wastes and wastewater.
214. This paragraph provides a brief description of anticipated site-specific impacts related to the different phases of the project (see Table 14).

Table 16. Brief description of anticipated site-specific impacts related to the phases of the project

#	Pre-Construction Phase. Potential Impacts	Risk	Sites
1.	Loss of Top soil	Moderate Risk	project area
	Construction Phase. Potential Impacts	Risk	Sites

1	Dust, noise, vibration	Moderate Risk	Within project area Operation and movement of construction machinery on
2	Pollution of surface water during construction and rehabilitation works	Minimal Risk	Within project area
3	Impacts on Archaeological and CH Sites	Moderate Risk	Within and around project area
4	Biodiversity	Minimal Risk	Within the project area
5	Infrastructure and Transport	Moderate Risk	Within the project area
6	Waste	Moderate Risk	During construction works within the project area
7	OHS / Community Health and Safety	Moderate Risk	During construction works within the project area
8	Emergencies	Moderate Risk	During construction works within the project area
9	Land scape visual change	Moderate Risk	During construction works within the project area
Operation stage Potential Impacts			
1	Risk related to the waste and wastewater pollution	Minima	Project area
2	Emissions	Minima	Project area
3	Noise and Vibration	Minima	Project area

F.3. Required Environmental Documents

215. The Contractor, prior to the onset of the construction, is obliged to conduct a number of studies and develop environmental plans, including:
1. **Site-specific environmental plan (SEMP)**
 2. **Traffic management plan**
 3. **Noise and vibration management plan**
 4. **Inventory of the trees to cut down (if required):** must be submitted to Telavi Municipality City Hall and in case of Red Listed species tree cutting will required - to MEPA, who will issue relevant permit and specify the tree planting compensation fee.
 5. **Waste Management plan:** Generation of significant amount of inert waste (more than 24,000 tones excess ground and construction inert waste) which should be

transported and disposed outside of the project site) is expected during earthworks within the project. According to the Georgian legislation, inert waste can be used for backfilling operations or construction purposes in coordination with a state or a municipality authority. Inert waste disposal site for backfilling operation shall be defined by the Telavi Municipality city hall. Waste Management Plan should be developed and submitted to the MEPA for adoption if amount generated waste will exceed limits defined by Georgia legislation (more than 1000 t of inert waste, more than 200 t of non-hazardous waste and more than 120 kg of hazardous waste).

6. **Asbestos-Containing Waste Management Plan** will be prepared if the asbestos-containing materials are fixed present at the project implementation stage.
 7. **Health and safety management plan**
 8. **Emergency response plan**
 9. **Camp site management plan**
 10. **Technical report of the stationary sources of harmful substances emitted into the atmospheric air (if necessary)** to be submitted to the MEPA for approval.
216. The contractor will be required: To employ 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 PIU (PIU) and corresponding information to MDF and SC.

F.4. Air quality

Impact at construction stage

217. 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. The operation of heavy machinery, vehicles and other construction equipment result in exhaust emissions of carbon monoxide, NOx, SO2, hydrocarbons, and particulate matter.
218. Dust generation during the construction works is associated with:
1. Earthworks, including topsoil stripping, excavations in cuts;
 2. Transportation and storage of excavated ground (topsoil and subsoil to the storage locations; spoil to the disposal sites);
 3. Transportation of fine materials (sand, gravel, cement etc.) from supplier sites, borrow pits and quarries;
 4. Storage of construction materials.
219. Several sensitive territories are situated near the project area (Batonis Tsikhe, for

example). The mentioned territories are attractive to locals and visitors and are constantly occupied by them. During the project implementation, it is expected that dust particles, noise and combustion gases (from technical equipment) will be released into air, which will have a negative impact on environmental components.

220. Emissions and dust generation may affect buildings located close to the construction site and residential areas along the material transportation routes. The vehicle and equipment emissions and dust are typical for any construction activities. The main receptors are representatives' offices, shops, residential houses located near the project site. A distance to the nearest residential houses is 35 m from the border of construction site. This impact is temporary and is estimated to be medium scale if not properly mitigated. In case of application of good construction practices the impacts could be minimized to minor and acceptable level.

Mitigation

221. Relatively high impact is connected with the dust emissions, which hardly can be quantified. However, it is obvious that the earth and demolition works, as well as transportation of gravel and other inert materials from borrow-pits and construction waste to landfill will impose nuisance related with dust. This is temporary impact, and should be mitigated by following measures:
- Damping down using water bowsters with spray bars or other technical means;
 - Sheeting of construction materials and storage piles;
 - Installation of dust screen enclosure during demolition;
 - Materials transported to site will be covered/ wetted down to reduce dust;
 - The construction site will be watered as appropriate;
 - Protective equipment will be provided to workers as necessary;
 - Instrumental measurements of ambient air pollution quality and noise level;
 - Instruction of staff in environmental, occupational health and safety issues.
 - Coordinate schedule of construction works with the residents living in nearby buildings, with administrations of public offices, etc.
222. If deemed necessary in dry conditions or where significant quantities of dust are being or are likely to be produced mitigation additional measures will be arranged with the Construction Manager.
223. Emissions of heavy machinery involved in the construction should be managed by proper engine maintenance practice and usage of good quality fuel. The work of engines in a no-operation mode should be excluded. Vehicle refueling will be undertaken so as to avoid fugitive emissions of volatile organic compounds through the use of fuel nozzles and pumps and enclosed tanks (no open containers will be used to stored fuel). All vehicles will be checked and repaired in case of need to eliminate increased emission due to damaged parts; Defined haulage routs will be used and vehicle speed will be reduced

where required. Materials will be transported to site in off peak hours.

Operation Phase

224. In the operation phase, minimal impact on ambient air quality is expected. Boiler to be supplied within the project will aligned to EU specifications on emissions.

F.5. Noise and Vibration

Impact at construction stage

225. Noise and vibration level will increase due to the construction works and operation of heavy machinery, bulldozers, excavators, graders, vehicles and equipment for transportation. Engineering machinery and vehicles are featured by their intermittent nature with mobility and high noise level (which is 80~90 dB from a distance of 5 meters).
226. The noise and vibration will cause nuisance of the local residents. Noise and vibration generation may affect residential areas along the material transportation routes. Noise generated due to the vehicle and equipment operations are typical for any construction activities. The main receptors are residents of the nearest houses to the project site. This impact is temporary and is estimated to be medium scale if not properly mitigated. In case of application of good construction practices the impacts could be minimized to minor and acceptable level.
227. The contractor will be required to conduct baseline survey and prepare noise and vibration management plan prior to construction activities, which includes appropriate mitigation measures and monitoring plan. Potential impacts of vibration on cultural heritage monument shall be envisaged.

Mitigation

228. The construction contractor shall provide instrumental measurement and monitoring of noise and vibration levels during the construction and implement mitigation measures to ensure that noise and vibration levels are within the national and international standards.
229. Source control is, in general, the most effective form of noise mitigation and involves controlling a noise source before it is able to emit potentially offensive noise levels. Construction noise is typically generated by two source types: (i) Stationary equipment; and (ii) Mobile equipment.
230. Less noisy equipment: One of the most effective methods of diminishing the noise impacts caused by individual equipment is to use less noisy machinery. By specifying and/or using less noisy equipment, the impacts produced can be reduced or, in some cases, eliminated. Source control requirements may have the added benefits of promoting technological advances in the development of quieter equipment.
231. *Mufflers*: Most construction noise originates from internal combustion engines. A large part of the noise emitted is due to the air intake and exhaust cycle. Specifying the use of adequate muffler systems can control much of this engine noise.

232. *Shields*: Employing shields that are physically attached to the particular piece of equipment is effective, particularly for stationary equipment and where considerable noise reduction is required.
233. *Aprons*: Sound aprons generally take the form of sound absorptive mats hung from the equipment or on frames attached to the equipment. The aprons can be constructed of rubber, lead-filled fabric, or PVC layers with possibly sound absorptive material covering the side facing the machine. Sound aprons are useful when the shielding must be frequently removed or if only partial covering is possible.
234. *Enclosures*: Enclosures for stationary work may be constructed of wood or any other suitable material and typically surround the specific operation area and equipment. The walls could be lined with sound absorptive material to prevent an increase of sound levels within the structure. They should be designed for ease of erection and dismantling.
235. In some situations, such as in urban areas or on isolated sections of a project it may be beneficial and necessary to construct barriers adjacent to the work area or at the right-of-way. These can take the form of natural shielding, temporary shielding, and/or permanent shielding.
236. Temporary abatement techniques include the use of temporary and/or movable shielding for both specific and nonspecific operations. Some mobile shielding is capable of being moved intact or being repeatedly erected and dismantled to shield a moving operation. An example of such a barrier utilizes noise curtains in conjunction with trailers to create an easily movable, temporary noise barrier system.
237. Special training can be provided by supervision company related to project-specific noise requirements, specifications, and/or equipment operations, including measurement of construction-related noise levels that may be required to meet the contract specifications.
238. The working time and construction schedule must be arranged rationally, and all engineering entities shall make reasonable arrangements for working time, and engineering activities after 22:00 hours through 8:00 hours the next day shall be strictly prohibited, except as required by the proposed project. Construction works should be coordinated with the residents of nearby buildings, and /or offices, etc.
239. As for implementation of the works nearby sensitive receptors including residential, educational and medical facilities, if the noise, vibration and dust level exceeds the permissible level, the construction works must be stopped and additional mitigation actions must be executed. The construction works will not be resumed unless the noise level reaches the norms.

Operation phase

240. No noise and vibration propagation is expected in the operation phase.

F.6. Water quality

Impact at construction stage

241. During implementation of the project the risk of surface and ground water contamination is of minimum level. Telavis Khevi and Dabakhnevi ravine are water bodies located near the project sites. The project envisages construction of the pedestrian bridge on the Dabakhnevi ravine. Although the riverbeds of both two rivers are dry most of the year, there is a risk of water pollution. The surface and ground water may be contaminated due to improper placement of the excavated soil, poor management of construction camps, and improper storage of construction materials and leakage of fuel and lubricates from construction machinery.

Mitigation

242. The following mitigation measures shall be implemented:
- Where works are in progress, erosion control and sedimentation facilities including sediment traps and straw bale barriers or combinations thereof will remain in place;
 - Lubricants, fuels and other hydrocarbons will be stored at least 50m away from water bodies.
 - Topsoil stripped material shall not be stored where natural drainage will be disrupted.
 - Solid wastes will be disposed of properly (not dumped in streams).
243. During the construction phase the Contractor will be required to construct, maintain, remove and reinstate as necessary temporary drainage works and take all other precautions necessary for the avoidance of damage to properties and land by flooding and silt washed down from the works. The Contractor will responsible for ensuring that no construction materials or construction waste block existing drainage channels within the project site.

Operation phase

244. No risks of surface water contamination is expected during operational phase.

F.7. Soil Quality and Topsoil Management

Impact at construction stage

245. Soil pollution may occur as a result of spills, improper waste management, oil leakages from the old outdated techniques or other actions.
246. Soil pollution may occur due to the relocation or replacement of the underground infrastructure on the project sites, as a result of an accidental damage of the pipe(s) or improper management of the polluted soil.
247. Topsoil loss may occur as result of earthworks such as land clearance works, grading, excavations.

Mitigation

248. The following practices will be adopted to minimize the risk of soil contamination and topsoil loss:

- The top soil of about 0.3 m depth shall be removed and stored separately during excavation work, and after the construction of the main trunk the same soil shall be replaced on the top, in unpaved areas; Removal of the top soil is required, both directly on the construction site and on the sections that will be used for storage of construction materials and relocation of equipment.
- In order to avoid the topsoil erosion, the height of fill must not exceed 2 m and the inclination of the fill slope must not exceed 45°;
- Water-diversion channels will be made along the perimeter of the topsoil fill and will be protected against the scattering by the wind blow;
- In case of storing the topsoil for long, measures must be taken to maintain its qualitative properties. Periodic loosening or grass sowing is meant;
- Subject to advance consent of the local self-governance authorities, the excess topsoil if remained will be used at other project sites or handed over to the appropriate authorities.
- Use of non-faulty construction techniques and vehicles;
- In case of spills of oil/lubricants, the spilled product will be localized/cleaned in the shortest possible time.
- The appliances creating the risk of ground water pollution when in operation will be equipped with drip pans;
- The vehicles must be preferably washed at private car washing areas;
- Using temporal water diversion channels;
- Filling the holes in a timely manner.

Operation phase

249. No risks of soil contamination is expected during operational phase.

F.8. Biological Environment

Impacts at construction stage

250. No trees cutting are planned on any of the project sites according to the project design. Cleaning of some areas from existing shrubbery and grass vegetation will be required.

Mitigation

251. Trees on the project sites (especially on Zuzumbo, Dabakhnebi and Gigo hills) must be protected from cutting or unintentional damage; All large trees shall be cordoned off with fencing, their root system protected, and any damage to the trees avoided.
252. If trees cutting or replanting will become necessary during the project implementation, the Construction Contractor will inventor the trees to be cut down or to be replanted before starting the construction and submit to MoEPA (for Red Listed tree species) and Telavi municipality (for trees not included in Red List) for obtainment tree cutting permission. The permission document will include the compensation measures based on the presented inventory. The compensation fees will be paid within the scope of the project as well as compensation activities will be implemented by the construction contractor. The trees shall be cut under supervision of designated specialist.

Operation phase

253. No risk of damage of biological environment is expected.

F.9. Waste Management

Non-hazardous waste

254. Non-hazardous **construction waste** will be generated on the construction area and will be collected by contractor's workers. Storage of such wastes in area close to settlement and untimely or improper disposal may impact on air quality, dust generation and disturbance of neighboring settlements. In addition, waste from packing materials and woods also will be generated.
255. Inert construction waste will be accumulated during the earth works. Such waste include more than 24,000 tones excess ground and construction inert waste. According to the waste management code of Georgia inert waste can be used for backfilling activities according to written agreement with local authority. Inert construction waste may be disposed on municipal solid waste landfill, managed by the Ltd "Solid Waste Management Company of Georgia", that is located in Vardisubani.
256. **Non-hazardous construction waste** shall be managed according to the waste management plan approved by the MoEPA. Inert construction waste can be used for backfilling activities according to written agreement with local authority. All other types of non-hazardous waste must be disposed on the landfill according to the written agreement with landfill management unit.
257. Disposal of construction wastes both on the sites and at the temporary storage facilities has to meet the following requirements:
- Place of disposal of the waste must be enclosed;
 - The waste must not have access to drainage water;
 - Waste must be immediately removed from the working sites;
 - Waste can be transferred only to a certified contractor.

258. **Municipal solid wastes** and waste waters will be generated at the construction and camp sites. Mainly this is rubbish, plastic or glass bottles, glasses, waste food, etc. Improper wastes management may cause the spread of infectious diseases, emergence of insects and parasites in construction camp sites. In addition, it may lead to conflict with local population.
259. **Municipal waste** should be collected both by the specially assigned personnel and the workshop workers on the area. The waste will place into 0.24m³ plastic containers and further a local Sanitary Service will takes it to landfill. The following should be taken into account:
- Generation of dust should be avoided;
 - Plastic containers should be closed to prevent spread of the smell and also to avoid contact of rodents and insects with the waste.
 - The personnel involved in the handling of hazardous and non-hazardous waste will undergo specific training in waste handling, treatment and storage;
 - Burning of waste on any construction site is forbidden with the exception of stub and small branches from felled trees and bushes, which is better to be burned in order to avoid pest dissemination.

Hazardous waste

260. No large amounts of hazardous waste are expected to originate in the project construction phase. This waste must be handed over to the contractor having the relevant license. During construction phase hazardous wastes may be generated from vehicle operation and maintenance, as well as on construction camp.
261. Hazardous waste should be stored, transferred to licensed companies, transported, and disposed in compliance with legislative requirements and by following the rules for hazardous waste management.
262. Hazardous waste must be collected and temporarily placed in the pre-selected, agreed area with consideration of requirements applicable to each waste type. The area allocated for temporary storage of hazardous waste shall have special preventive measures implemented, in particular, containers shall have secondary containment and no mixing of hazardous waste with any other waste shall be allowed. Hazardous waste containers shall be checked for tightness. The staff involved in hazardous waste management shall be trained in waste management and safety issues. The waste shall be removed every 3 days.
263. Since there are no landfills for hazardous waste available in Georgia, this category waste must be handed over to authorized contractor for utilization. For hazardous waste agreement with company authorized for treatment (deactivation, incineration) or re-use in other technological processes will be signed.
264. Soil polluted with petroleum hydrocarbons because of accidental small scale fuel/oil spills (leakages) can be remediated onsite (e.g. in situ bioremediation). Larger spills (less likely

to be the case from experience with other similar projects) must be localized, contaminated soil removed by authorized contractor for remediation. New, clean soil must be introduced, followed by re-cultivation. It is recommended to involve an authorized company for this service.

265. Construction Company before start construction activities shall prepare a company waste management plan. The plan shall generally include:
- i. information about waste generated (in particular about its origin, and types, composition and amount of waste defined in the List of Waste);
 - ii. information on the measures to be taken for the prevention of waste generation and its recovery, especially in the case of hazardous waste;
 - iii. a description of the method for separation of waste generated, in particular of hazardous waste, from the other waste;
 - iv. methods and conditions for the temporary storage of waste;
 - v. waste treatment methods applied and/or information on persons to whom waste is transferred for further treatment.

Asbestos-Containing waste

266. In the construction phase, at the stage of dismantling and moving the underground infrastructure, there may be asbestos-containing pipes or other parts identified in the area. These materials are hazardous materials/waste and need special management. The following actions are necessary to manage the asbestos waste found in the project zone:
- The amount and content of the waste shall be identified;
 - The asbestos containing waste management plan shall be developed;
 - The waste is to be removed from the area and safely disposed under the prepared plan.

Medical Waste

267. Medical waste may be generated in the Medical Care and Control Point and belongs to hazardous waste category. This waste is collected in special plastic boxes which shall be hermetically closed and is transferred to a certified contractor for farther incineration.
268. The contractor will be required to post-construction clean-up and reinstate of worksites to pre-works condition or better. The PIU's confirmation notice shall be issued that all works and clean-up have been satisfactory as "Acceptance of Works" and will be part of condition for payment.

Impact assessment due to COVID-19

48. The projects' construction/civil works will involve work force, together with suppliers and supporting functions and services. The work force may comprise workers from national, regional, and local labor markets. They may need to live in on-site accommodation, lodge

within communities close to work sites or return to their homes after work. There may be different contractors permanently present on site, carrying out different activities, each with their own dedicated workers. Supply chains may involve international, regional and national suppliers facilitating the regular flow of goods and services to the project (including supplies essential to the project such as fuel, and water). As such there will also be regular flow of parties entering and exiting the site; support services, such as catering, cleaning services, equipment, material and supply deliveries, and specialist sub-contractors, brought in to deliver specific elements of the works.

49. Given the complexity and the concentrated number of workers, the potential for the spread of infectious disease in projects involving construction is serious, as are the implications of such a spread. Projects may experience large numbers of the work force becoming ill, which will strain the project's health facilities, have implications for local emergency and health services and may jeopardize the progress of the construction work and the schedule of the project. Such impacts will be exacerbated where a work force is large and/or the project is in remote or under-served areas. In such circumstances, relationships with the community can be strained or difficult and conflict can arise, particularly if people feel they are being exposed to disease by the project or are having to compete for scarce resources. The project must also exercise appropriate precautions against introducing the infection to local communities.
50. The Government of Georgia has adopted the special procedure on acting in conditions of pandemic - the Temporary Sanitarian Norms and Rules (SanN&R) # 0372-20 "On organization of performance of state agencies and other organizations, commercial entities in limited measures condition due to pandemic COVID-19". The document was approved by the Agency on Sanitarian Epidemiological Well-Being (3rd edition), May 11, 2020. The SanN&R provides general requirements and specific requirements for different sectors: pharmacy, public transport, markets, construction sites and etc.
51. According to GoG, the managers of organizations are personally responsible for compliance with the SanN&R. All works have to be organized in order to ensure:
 - preventing the introduction of infection into the organization;
 - taking measures to prevent the spread of coronavirus infection (COVID-19) in teams in organizations;
 - implementation of organizational and technical measures to prevent infection of workers;
 - other organizational measures to prevent infection of workers.
52. The rules present requirements for safe transportation workers, organizing medical examination at the entrance points, provision with disinfection equipment and disinfectants, catering facilities, construction camps, etc. Also, the document describes requirements on organizing an isolator in medical centers (if any) in case if patient is identified with a high fever or with individual symptoms of an acute respiratory viral infection (lack of smell, dry cough, malaise, etc.) and isolating him from the work team.

53. All managers have to conduct introductory training for new workers and routine training for working staff. The rules provide an action plan for cases when workers with COVID-19 symptoms.
54. GoG provides specific norms for construction sites. The section pays special attention to dust and provides recommendation for dust generation mitigation and protection. The rules provide a list of Personal Protection Equipment for COVID-19.
55. The document also provides instruction on communication with local health care institutions for organizing regular medical examination of workers and mobilization in case of identification infections.

Mitigation measures

56. In conditions of pandemic risk organize works in accordance with GoG and ADB Temporary Sanitarian Norms and Rules;
57. Ensure proper recording and reporting of any cases of infection and undertaken actions.

F.10. Traffic

Impacts and mitigations during Construction

269. **A traffic control and operation plan** will be prepared together with the local traffic management authority prior to any construction. The plan shall include provisions for diverting or scheduling construction traffic to avoid morning and afternoon peak traffic hours, regulating traffic at road crossings with an emphasis on ensuring public safety through clear signs, controls and planning in advance;
270. **Construction sites.** Clear signs will be placed at construction sites in view of the public, warning people of potential dangers such as moving vehicles, hazardous materials, excavations etc and raising awareness on safety issues. Heavy machinery will not be used after daylight and all such equipment will be returned to its overnight storage area/position before night. All sites will be made secure, discouraging access by members of the public through appropriate fencing whenever appropriate.
271. **Information disclosure.** Residents and businesses will be informed in advance through media of the road improvement activities, given the dates and duration of expected disruption. The relevant information leaflets must also be distributed to the transit vehicle drivers crossing the border of the country.

Impacts During Operation

272. The impact on the operation phase may be related to the increase in traffic on access roads to arranged public and touristic infrastructures, which shall be regulated by installation of clear signs.

F.11. Impacts on Archaeological and Cultural Heritage Sites

273. The main risk related to the implementation of this project is damaging historic and aesthetic value of the cultural heritage sites nearby of which civil works will be implemented. Archeological sites revealed on Zuzumbo and Dabakhnebi hills, Batonis Tsikhe fortress and other cultural heritage sites located in close proximity of the project sites seems to be main sensitive receptors. However, if adequately performed and mitigation measures applied, the project will significantly contribute improvement of places appearance and further promote attraction of the visitors.
58. The following measures shall be implemented to avoid and mitigate adverse impacts on cultural heritage monuments:
- According to the requirements of Georgian legislation the project design shall be agreed with the National Agency for Cultural Heritage Preservation of Georgia (NACHP). The conclusion of the NACHP shall be provided that the proposed design will not damage the historically evolved environment of a cultural property, or hinder optimum visibility and full perception of the cultural property and diminish its value and therefore is suitable to be developed within the visual security zone of the cultural property.
 - Consultations shall be provided with relevant stakeholders including national and local regulatory agencies (Ministry of Culture, Sport and Youth of Georgia, National Agency for Cultural Heritage Preservation of Georgia). The findings shall be reflected in the updated IEE report and project design.
 - The experienced expert shall be hired by the construction and supervision companies to provide permanent monitoring of the construction works to detect and avoid any adverse impacts on Cultural Heritage Monuments in a timely manner.
 - Special dust prevention nets shall be installed to reduce air pollution around the project site.
 - The construction contractor shall provide instrumental measurement and monitoring of noise and vibration levels during the construction and implement mitigation measures to ensure that noise and vibration levels are within the national and international standards.
 - All workers will be strictly prohibited from damaging activities around the construction territory.
274. The building of Telavi Elene Akhvlediani Art School has a status of cultural heritage monument and is protected by National Agency for Cultural Heritage Preservation of Georgia (NACHPG). The anticipated impact is mostly positive as project envisages rehabilitation of the building damaged during the years and aims at restoration of historical building to preserve its CH value. The risk of negative impact is very low and may be related to rehabilitation works carried out incorrect way.
275. Land clearance works, grading and excavations are associated with the risks of damaging

underground archaeological remnants. Works on Zuzumbo and Dabakhnebi hills will be conducted near archaeological sites. Fountain will be arranged near the Batonis Tsikhe fortress, in historic area of Telavi. Therefore initial archaeological surveys should be conducted on this sites, as required by the letter of National Agency for Cultural Heritage Preservation (#17/5403. Dated December 19, 2019), as well as archaeological supervision should be provided during the earth-works on all sites of the project. Construction contractor in accordance of written agreement with the Ministry of Culture, Sport and Youth of Georgia shall assign specialist for archaeological supervision. The Ministry may also assign such specialist, although this is practiced only in exclusive cases of sensitive projects. Archaeological supervisor conducts daily monitoring at all construction sites, where the earthworks (land clearance; grading; excavations etc.) are planned according to the schedule. Besides that, archaeological supervisor instructs the workers to report him immediately in case of any chance finding of potential archaeological relics.

276. In case of finding any artefacts of potential archaeological value, following steps are taken:

- Construction workers are obliged to stop works and immediately report to the Archaeological Supervisor.
- 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 finding was made;
- 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.
- In case if the finding is estimated as potential archaeological relic, the Archaeological Supervisor reports to Chief Engineer of the Construction Contractor and to MDF Environmental Specialist (and supervising company / Engineer) requesting to stop construction activities and to inform the Ministry of Culture, Sport and Youth of Georgia about the incident.
- Chief Engineer of the Construction Contractor also reports to MDF informing about the stopped operations and requesting immediate engagement of the Ministry of Culture, Sport and Youth of Georgia .
- The Ministry of Culture, Sport and Youth of Georgia will assign expert or group of experts and conduct necessary archaeological works at the site to identify the problem.
- In simpler cases, after removal of the movable artefacts, fixing materials and conducting other required works, the experts of the Ministry of Culture, Sport and Youth of Georgia will issue decision on recommencement of stopped construction works.
- In exclusive cases of valuable and spatially spread findings, the Ministry of Culture, Sport and Youth of Georgia may issue request to relocate the project works on a safe distance from the archaeological site.

F.12. Health and Safety Risks for local community

277. There is invariably of safety risks when substantial construction works are conducted in an urban area, and precautions will thus be needed to ensure the safety of both workers and citizens.
278. The project will be implemented in the buildings, which currently are operational. Project will not interrupt working process in Vazha Pshavela Drama Theater, as rehabilitation and reconstruction works will be implemented in the basement of the theatre which is isolated from main part of the building and has a separate entrance from square side that will be used during civil activities. Elene Akhvlediani Art School will require temporary relocation. Telavi municipality government is in charge to manage relocation process of mentioned schools to avoid interruption of study process for students and keep working atmosphere for school staff.
279. The civil works contractor will be required to develop health and safety management plan prior to construction works. The management plan also will cover occupational health and safety risks.
280. The company will allocate special field person (HSE specialist) responsible for safety and environmental monitoring measures. Construction and Supervision Company HSE specialist will permanently supervise all demolition and construction activities.
281. Safety measures will be developed and implemented to ensure safe access to the buildings located along the streets to be rehabilitated within the project.
282. There shall be adequate protection to the general public, including safety barriers and fences and marking of hazardous areas with warning signs and information banners. Warning signs will be installed around project site and access roads in Georgian and English languages.
283. It is important that truck drivers and equipment operators understand the importance of maintaining road safety especially at road junction points. Safety traffic signs and warning lights should be installed at appropriate locations.
284. During construction the Contractor shall ensure that all power lines be kept operational, this may include the provision of temporary transmission lines while existing poles and lines are moved. The only exception to this item will be during periods of blasting when HV power lines will be switched off for safety
285. Drinking water demand will not compete with adjacent communities;
286. Community safety has to be maintained during construction and a program for traffic safety needs to be continued during its operations.

F.13. Occupational Health and Safety risks

287. Worker's safety during construction is important. Health and safety at workplace and during execution of work should be among the Contractor's work policy. The following items address overall worker's safety which is necessary to be considered by the Project (Table 20).
288. Safety measures and regulations associated with Covid-19 prevention and its spread out shall be implemented. General recommendations for the construction sector regarding the infection (COVID 19) caused by the new corona virus (SARS-CoV-2) approved the order #01-227/o of the Minister of Internally Displaced Persons From the Occupied Territories, Labour, Health and Social Affairs of Georgia shall be strictly followed.

Table 17. Worker's Safety Aspect

Project Potential Impacts on Worker's Safety	Recommended Mitigation Measures and Monitoring Activities
Pre-Construction:	
Provision of PPE – Workers should be adequately protected when performing work at the site	For health and safety protection of workers the following shall be provided: <ul style="list-style-type: none"> • Adequate health care facilities (including first aid facilities) within construction sites; • Training of all construction workers in basic sanitation and health care issues, general health and safety matters, and on the specific hazards of their work; • PPE for workers, such as safety boots, helmets, gloves, protective clothing, goggles, and ear protection in accordance with legal legislation;
Workers Safety Awareness – Workers should know the risks and hazards of the job and should be advised and reminded accordingly	The Contractor shall hire a qualified health and safety expert who will provide safety training to the staff according to the requirements of the individual work place. Prior to the 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.) and also the cleaning of the equipment. In preparation of this the Contractor shall establish a short list of materials to be used (by quality and quantity) and provide a rough concept explaining the training / briefing that shall be provided for the construction personnel.
Construction Phase:	
Worker Health & Safety – Risks and hazards of work are real day-to-day occurrence. Hence, health and safety should be taken seriously for the general welfare of the workers.	The Contractor shall be responsible for provision of: <ul style="list-style-type: none"> • Safety Training Program. A Safety Training Program is required and shall consist of an Initial Safety Induction Course. All workmen shall be required to attend a safety induction course within their first week on Site and Periodic Safety Training Courses. • Safety Meetings. Regular safety meetings will be conducted on a monthly basis and shall require attendance by the safety representatives of Subcontractors unless otherwise agreed by the Engineer.

	<ul style="list-style-type: none"> • Safety Inspections. The Contractor shall regularly inspect, test and maintain all safety equipment, scaffolds, guardrails, working platforms, hoists, ladders and other means of access, lifting, lighting, signing and guarding equipment. Lights and signs shall be kept clear of obstructions and legible to read. Equipment, which is damaged, dirty, incorrectly positioned or not in working order, shall be repaired or replaced immediately. • Safety Equipment and Clothing. Safety equipment and protective clothing are required to be available on the Site at all material times and measures for the effective enforcement of proper utilization and necessary replacement of such equipment and clothing, and all construction plant and equipment used on or around the Site shall be fitted with appropriate safety devices. <p>The Contractor shall coordinate with local public health officials and shall reach a documented understanding with regard to the use of hospitals and other community facilities.</p>
Sub-contractor's / Suppliers EMP Compliance – As part of the work force in the project, the sub-contractors should be instructed and contractually compelled to comply with the EMP.	<p>All sub-contractors/ suppliers will be supplied with copies of the SSEMP. Provisions will be incorporated into all sub-contracts to ensure the compliance with the SSEMP at all tiers of the sub-contracting. All sub-contractors will be required to appoint a safety representative who shall be available on the Site throughout the operational period of the respective sub-contract unless the Engineer's approval to the contrary is given in writing. In the event of the Engineer's approval being given, the Engineer, without prejudice to their other duties and responsibilities, shall ensure, as far as is practically possible, that employees of subcontractors of all tiers are conversant with appropriate parts of the SSEMP.</p>

F.14. Construction Camps

289. The establishment of contractor's work camp may cause adverse impacts if various aspects such as liquid and solid waste management, equipment maintenance, materials' storage, and provision of safe drinking water if are not addressed properly. The site for the work yard will be selected by the contractor in agreement with the Municipality, MDF and the supervisor.
290. To ensure that potentially resulting impacts are kept at a minimum the contractor will be required to prepare the following plans or method statements:
- Camp site management plan;
 - Layout plan of the work camp including a description of all precautionary measures proposed to avoid potential adverse impacts on the receiving environment (surface and ground water, soils, ambient air, human settlement);
 - Sewage management plan for provision of sanitary latrines and proper sewage collection and disposal system to prevent pollution of watercourses or groundwater;
 - Waste management plan covering the provision of garbage bins, regular collection

and disposal in a hygienic manner, as well as proposed disposal sites for various types of wastes (e.g., domestic waste, used tires, etc.) consistent with applicable national regulations; and

- Description and layout of equipment maintenance areas and lubricant and fuel storage facilities including distance from the nearest surface water body. Storage facilities for fuels and chemicals will be located at a safe distance to the water body. Such facilities will be bounded and provided with impermeable lining to contain spillage and prevent soil and water contamination

291. These plans will be approved by the Engineer prior to beginning of construction activities.

F.15. Impact assessment due to COVID-19

59. The projects' construction/civil works will involve work force, together with suppliers and supporting functions and services. The work force may comprise workers from national, regional, and local labor markets. They may need to live in on-site accommodation, lodge within communities close to work sites or return to their homes after work. There may be different contractors permanently present on site, carrying out different activities, each with their own dedicated workers. Supply chains may involve international, regional and national suppliers facilitating the regular flow of goods and services to the project (including supplies essential to the project such as fuel, and water). As such there will also be regular flow of parties entering and exiting the site; support services, such as catering, cleaning services, equipment, material and supply deliveries, and specialist sub-contractors, brought in to deliver specific elements of the works.
60. Given the complexity and the concentrated number of workers, the potential for the spread of infectious disease in projects involving construction is serious, as are the implications of such a spread. Projects may experience large numbers of the work force becoming ill, which will strain the project's health facilities, have implications for local emergency and health services and may jeopardize the progress of the construction work and the schedule of the project. Such impacts will be exacerbated where a work force is large and/or the project is in remote or under-served areas. In such circumstances, relationships with the community can be strained or difficult and conflict can arise, particularly if people feel they are being exposed to disease by the project or are having to compete for scarce resources. The project must also exercise appropriate precautions against introducing the infection to local communities.
61. The Government of Georgia has adopted the special procedure on acting in conditions of pandemic - the Temporary Sanitarian Norms and Rules (SanN&R) # 0372-20 "On organization of performance of state agencies and other organizations, commercial entities in limited measures condition due to pandemic COVID-19". The document was approved by the Agency on Sanitarian Epidemiological Well-Being (3rd edition), May 11, 2020. The SanN&R provides general requirements and specific requirements for different sectors: pharmacy, public transport, markets, construction sites and etc.

62. According to GoG, the managers of organizations are personally responsible for compliance with the SanN&R. All works have to be organized in order to ensure:
- preventing the introduction of infection into the organization;
 - taking measures to prevent the spread of coronavirus infection (COVID-19) in teams in organizations;
 - implementation of organizational and technical measures to prevent infection of workers;
 - other organizational measures to prevent infection of workers.
63. The rules present requirements for safe transportation workers, organizing medical examination at the entrance points, provision with disinfection equipment and disinfectants, catering facilities, construction camps, etc. Also, the document describes requirements on organizing an isolator in medical centers (if any) in case if patient is identified with a high fever or with individual symptoms of an acute respiratory viral infection (lack of smell, dry cough, malaise, etc.) and isolating him from the work team.
64. All managers have to conduct introductory training for new workers and routine training for working staff. The rules provide an action plan for cases when workers with COVID-19 symptoms.
65. GoG provides specific norms for construction sites. The section pays special attention to dust and provides recommendation for dust generation mitigation and protection. The rules provide a list of Personal Protection Equipment for COVID-19.
66. The document also provides instruction on communication with local health care institutions for organizing regular medical examination of workers and mobilization in case of identification infections.

Mitigation measures

67. In conditions of pandemic risk organize works in accordance with GoG and ADB Temporary Sanitarian Norms and Rules;
68. Ensure proper recording and reporting of any cases of infection and undertaken actions.

Cumulative and Transboundary Impacts

69. There are no cumulative and transboundary effects associated with the project due to the nature and size of the civil works to be implemented which are directed on restoration, reconstruction, conservation of the buildings located within the historic part of Telavi City. The project will have positive impact on economic development of Telavi municipality by contributing to tourism sector.

G. INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

292. As confirmed by social due diligence findings, there are no LAR impacts identified and

subsequently the current project has no AP's. The main stakeholders are local resident(s) living near the subproject site and Telavi municipality local government. All these stakeholders have already been contacted using distant communication channels (via personal computer, mobile phone).

Due to circumstances formed throughout the world related to the virus outbreak (COVID 19), social distancing has been applied amongst the population and public consultations in the course of infrastructural projects implementation may become the source of virus spreading. Therefore, it is essential the alternative sources of communication with the stakeholders be found in order not to violate the recommendations issued by the World Health Organization (WHO) and the Government of Georgia (GoG). It is of high importance also that public and direct consultations with all stakeholders are held in order to have the stakeholders and other locals, residing at the Municipality to be thoroughly informed of current and planned infrastructural projects and social and environmental matters related to the referenced projects. Applying of that method will enable them to not only receive the information by means of various sources, but also to participate directly in discussions, ask the questions and be involved in ongoing processes. Due to general development of internet network and its availability in many resided areas throughout Georgia, people have access to many social networks and apply them successfully in their everyday lives. Hence, it is possible to hold the future public consultations in the remote mode by applying of available internet social networks and various communication applications. It will depend also on network and internet applications, being used by local residents.

293. Draft and final IEE reports in Georgian and English Languages have been disclosed on MDF and ADB websites and have been made available to Project stakeholders upon approval. Hard copies have been available for consultation at the MDF office and the Telavi City Hall.
294. As part of the preparation of this IEE, consultations with stakeholders were undertaken to solicit views and feedback on the project. Due to limitations of face-to-face interactions during the COVID-19 pandemic, initial public consultation meetings were conducted on 10 and 15 of June, using Zoom and Google Meeting. Minutes of the meeting are attached to this IEE report. The consultations focused on informing the stakeholders on the scope of the project activities, potential environmental impacts as a result of the proposed activities, along with the required measures that will be implemented to ensure any potential impacts are limited to the site and do not impact the communities. Any comments and/or concerns raised by these stakeholders were reflected in the minutes.

H. GRIEVANCE REDRESS MECHANISM

Objectives

295. In projects implemented by MDF, grievance resolution is viewed as a two-stage process. The first stage involves locally available means, such as discussing the concern with Deputy Resident Engineer or Contractor, on site focal point from Supervision Consultant / Contractor, or/and writing to local municipality for resolution of grievances on the spot. The grievance redress mechanism shall deal with the issues of e.g. amount of compensation, loss of access roads, etc. as well as the losses and damages caused by the construction works, e.g. temporary or permanent occupation of land by the contractor. Therefore, the grievance redress mechanism shall be in place by the time the MDFG starts negotiations with the APs and shall function until the completion of the construction.

296.

Grievance Resolution Process

297. Grievance redress procedures of Stage 1 are an informal tool of dispute resolution allowing the complainants, project implementation team to resolve the disagreement without any formal procedures, procrastination and impediments. The experience of resettlement in projects implemented by MDF shows that such informal grievance redress mechanism helps to solve most of the complaints without formal procedures (i.e. without using the procedures specified in the Administrative Code or litigation). This mechanism enables unimpeded implementation of the Project and timely satisfaction of complaints. At this stage, complaint shall be reviewed by Contractor Company who should notify the Supervision Company and IA about the case. If the complaint is not resolved at the field-level stage, committee of Local self-Government body will discuss and address the complaints accordingly. If the complainant is not satisfied, the grievance redress mechanism should assist them in lodging an official complaint in accordance with the procedures of Stage 2 (the plaintiff should be informed of his/her rights and obligations, rules and procedures of making a complaint, format of complaint, terms of complaint submission, etc.).

298. Stage 2 – review of complainant's complaint. Within MDF has already established Grievance Redress Commission (GRC) for the whole period of the project implementation. GRC shall review the written complaints of complainants, which were not satisfied at Stage 1. At stage 2 the complainant complaint shall be resolved. The above mentioned GRM procedures does not deprive the plaintiff the right to sue in the court directly. The maximum time allowed for the procedure is 5 months.

299. The present Procedures are developed specifically for the purposes of Stage 2 process of grievance resolution by the GRC. The purpose of these GRC Procedures is to make MDF more accessible to project affected communities and to help ensure efficient resolution of project-related complaints.

300. Upon receipt of the complaint it will be registered at the reception of MDF. The complainant shall be given a receipt evidencing submission of his/her complaint with the

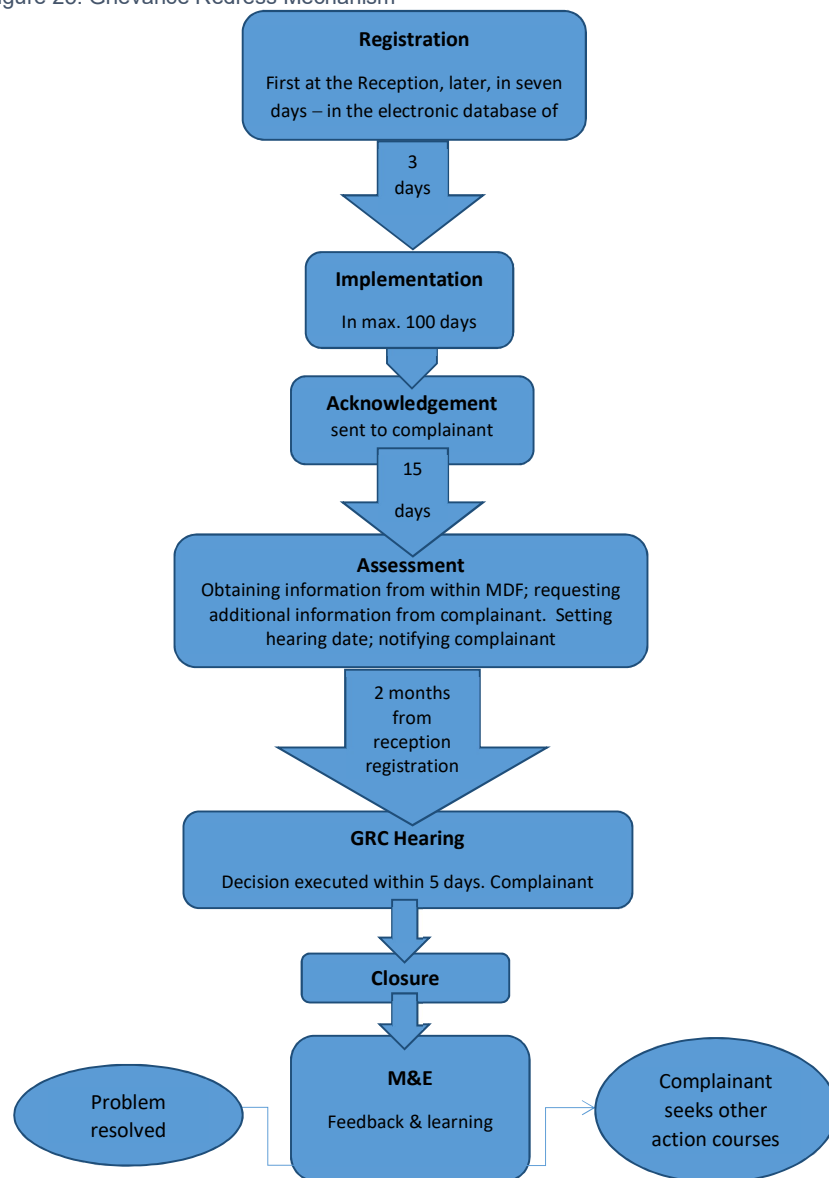
MDF. The receptionist will direct the complaint to the Director of MDF, who shall screen all incoming claims and within 5 working days of receipt of such claim by the reception office, direct the appropriate claims to the Safeguards Unit. Safeguards unit will register the complaint in its electronic database. Upon registration in the database the complaint will be assigned a number.

301. After registration of the complaint in the database of Safeguards Unit, the Safeguards unit will notify the complainant in writing (letter, and/or email) that the complaint has been received, registered, and forwarded to the project team for action as well as the number assigned to the complaint and the contact information for further queries and clarifications.
302. Within 15 working days of registration of the complaint in the database the Safeguards unit will:
 - Determine if additional information and/or documents necessarily need to be provided by the complainant, and if so, request the complainant in writing to submit such additional information/documents.
 - Obtain relevant and necessary information internally, from MDF's various departments or from project partners.
 - Decide on the date when the complaint shall be presented to the GRC for hearing;
 - Inform the complainant of such date, if necessary;
 - Update the status of the complaint in the database.
303. GRC Hearing shall be held at least once a month. Any complaint must be heard within two months after its registration at the MDF reception. The agenda of the GRC hearing, with a list of complaints to be reviewed at that hearing shall be set in advance. Such Agenda, together with a short brief/summary on each complaint shall be sent to each member of the GRC at least 3 working days prior to the date of the GRC hearing.
 - The staff member responsible for each complaint shall first present a short description/summary of the complaint, and then answer any questions the GRC members may have. Final decision based on the deliberations and discussions is made by the Committee by the majority of votes. If needed, the complainant may be invited to the hearing to present evidence related to the case. Copy of the minutes from the hearing shall be provided to the relevant IFI.
 - The decision adopted by the committee shall be signed by the Executive Director within 5 working days of such hearing. The final decision shall contain a timeline of its implementation.
 - The information letter (regarding the decision) to the complainant shall be sent in writing within 2 working days after signing of the resolution by the Executive Director. The response provided to complainant(s) should be informative and include relevant details.
 - Safeguards Unit will update the status of the complaint in the database accordingly.

- MDF's appropriate Unit shall be responsible for the follow up and implementation of the GRC decision in accordance with the resolution. Safeguards unit shall report to each following GRC meeting on the progress and status of implementation of the previous GRC meeting decisions.
 - Implementation time frame will be case specific but should not normally exceed 100 days. GRC secretary will monitor implementation of the actions.
 - When all actions decided at the GRC hearing have been taken the complaint is considered closed. The GRC will inform the complainant that all actions have been taken and the problem has been resolved and closed, and/or that the complaint has been rejected and is closed. If no response is received from the complainant during three weeks, the complaint shall be considered officially closed.
304. If the MDF decision fails to satisfy the aggrieved APs, they can pursue further action by submitting their case to the appropriate court of law.
305. The complaints and grievances will be addressed through the process described below in figure 6.
306. Complaints will also be accepted by any ADB office such as a resident mission, regional office or representative office, which will forward them unopened to the CRO.

Complaints Receiving Officer, Accountability Mechanism
Asian Development Bank Headquarters
6ADB Avenue, Mandaluyong City 1550, Philippines
Email: amcro@adb.org, Fax+63-2-636-2086

Figure 25. Grievance Redress Mechanism¹⁵



¹⁵ The figure reflects the procedures at the Stage 2 within MDF

Grievance Form

#		
Full Name, Surname		
Contact Information	<input type="checkbox"/> Post: please indicate your postal address: _____ _____ _____	
Please, fill in how you want to be contacted (post, telephone, e-mail)	<input type="checkbox"/> Telephone: _____	
	<input type="checkbox"/> E-mail: _____	
Preferred contact language	<input type="checkbox"/> Georgian <input type="checkbox"/> English <input type="checkbox"/> Russian	
Description of Grievance/ Claim:	What happened? What you claim?	
Negotiation Date:	Decision after the negotiation:	
What is the reason of your claim?		
Signature: _____		
Date: _____		

I. ENVIRONMENTAL MANAGEMENT PLAN

Introduction

307. The Environmental Management Plan (EMP) documents the impacts identified in the report, the actions required to mitigate those impacts to acceptable levels in accordance with the Georgian legal requirements and the ADB safeguard policy, and the monitoring activities that are to be undertaken as part of the project to confirm that the mitigation actions have been effective in achieving their objectives or to initiate corrective actions required.
308. The EMP also details the institutional arrangements and capacities that currently exist, or that will be put in place as part of the project implementation, to ensure that the environmental due diligence (including the EMP) has comprehensively considered both the national and ADB requirements for environmental protection, has identified all likely environmental impacts and proposed appropriate mitigation measures, and has the systems in place to ensure that effective procedures for environmental monitoring and control of the project impacts and mitigation measures are implemented throughout the life of the project.
309. The environmental impacts associated with project have been detailed above in the chapter F of this IEE. Mitigation measures required to address the impacts identified in the IEE have been summarized in each of the relevant sections covering the physical, biological and socio-economic environment affected by the project (chapter F). The impacts identified and the specific mitigation measures proposed to address them have been consolidated into the environmental mitigation plan presented in Table in a form of matrix, which includes time frames, responsibilities and where applicable, estimated costs for each measure.
310. The environmental mitigation plan specifies the need for the civil works Contractor to provide its own detailed Site Specific Environmental Management Plan (SSEMPs,) based on current EMP, but supplemented with the description of the schedule of planned activities, persons responsible for implementation of EMP and monitoring, as well as with method statements for spillage control and construction waste management.

Implementation Arrangements and Responsibilities

311. The main institutions that will be involved in implementation of the SSEMP and monitoring are the executing agency (EA), the Supervision Consultant (SC) the Contractor and to a lesser extent the Ministry of Environmental Protection and Agriculture. EA and SC are responsible for ensuring monitoring of the project implementation at the construction stage. Ministry of Environmental Protection and Agriculture has the authority for periodic audits but should not be considered as a party responsible for monitoring according to this IEE and EMPs.
312. **MDF** as the executing agency will be responsible for the day to day management of the project including monitoring implementation of the SSEMP. Management of environmental issues is carried out by the MDF through Environmental and Resettlement

Unit, established in October 2014. From that time, number of Environmental and Resettlement team members has been increased from 6 to 11 and currently consists of: Head of Unit, 3 environmental safeguards specialists, one social safeguards and gender specialist, one Beneficiary Relations Specialist, one resettlement and GIS specialist, 2 resettlement specialists and two ADB's individual consultants (one on resettlement issues and the other for communication matters), who also are the members of Environmental and Resettlement Unit.

313. The MDF's Environmental and Social Specialists responsibilities in respect to implementation of the EMP/SSEMP are as follows:
1. Ensure that all relevant EMP requirements (including environmental designs and mitigation measures) are duly incorporated into the project bidding documents;
 2. Ensure that Contractor obtains necessary permits and/or clearance, as required, from MoEPA and other relevant government agencies. All necessary regulatory clearances should be obtained before commencing any civil work on the project;
 3. Ensure that contractor has access to the EMP and IEE report; Ensure that contractor understands its responsibilities to mitigate environmental problems associated with their construction activities and facilitate training of their staff in implementation of the EMP;
 5. Approve the Site-Specific Environmental Management Plan (SSEMP) prepared by the Contractor before he takes possession of construction site;
 6. Monitor the contractor's implementation of the SSEMP in accordance with the environmental monitoring plan;
 7. Prepare and submit semi-annual Environmental Monitoring Reports to ADB;
 8. In case unpredicted environmental impacts occur during the project implementation, prepare and implement as necessary an environmental emergency program in consultation with MEPA, any other relevant government agencies, and ADB;
 9. Ensure that Contractor hires specialized companies to manage asbestos waste disposal and safe operations on dismantling, transportation and storage of oil contaminated equipment of gas filling stations. The other choice is to request Construction Contractor to hire the mentioned waste and pollution Management Company and to insert this requirement in Civil Works Contract.
314. **The supervisor company (SC)** of works commissioned by MDF is responsible to establish strong field presence in the Project area and keep a close eye on the course of works. Along with ensuring consistency with the design and ensuring quality of works, the supervisor is mandated to track implementation of EMP by the contractor, reveal any deviations from the prescribed actions, as well as.
315. The SC will include environmental specialist to assist the EA supervise and monitor implementation of the EMP during construction. A Non-Compliance Notice will be issued to the contractor if the SC requires action to be taken. The contractor will be required to

prepare a corrective action plan which is to be implemented by a date agreed with the SC. Non-compliance will be ranked according to the following criteria:

1. Non-Compliance Level I: A situation that is not consistent with requirements of the EMP, but not believed to represent an immediate or severe social or environmental risk. Repeated Level I concerns may become Level II concerns if left unattended.
 2. Non-Compliance Level II: A situation that has not yet resulted in clearly identified damage or irreversible impact, but which demonstrates potential significance. Level II requires expeditious corrective action and site-specific attention to prevent severe effects. Repeated Level II concerns may become Level III concerns if left unattended;
 3. Non-Compliance Level III: A critical situation that will result in significant social or environmental damage occurring or a reasonable expectation of very severe impending damage. Intentional disregard of Non-Compliance Notices or specific prohibitions is also classified as a Level III concern.
316. The failure to prepare a corrective action plan or to implement it within the required timeframe will result in the Employer undertaking the work at the Contractor's expense (as will be specified in the Contract).
317. **Construction contractor** is obligated to follow IEE/EMP and good construction practice. In order to meet this obligation, a contractor shall establish environmental management team and procedures. The Contractor will appoint a full time Environmental Manager (EM) to be a senior member of the construction management team based on site for the duration of the contract.
318. Key responsibilities of the Contractor (through the EM) are as follows:
1. Preparing the Specific Environmental Management Plan (SSEMP) for endorsement by Supervision Consultant and approval by the Employer (EA) prior to the Contractor taking possession of the construction site (see below)) including pre-works recording and photo-documentation
 2. Ensuring the SSEMP is implemented effectively throughout the construction period. (iii) Coordinating community relations issues through acting as the Contractor's community relations focal point (proactive community consultation, complaints investigation and grievance resolution);
 3. Ensure instrumental environmental monitoring if needed
 4. Establishing and maintaining site records of: (i) weekly site inspections using checklists based on 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 SC; (v) Corrective action plans issued to the SC 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); (ix) Adhoc reporting to the Employer's Engineer of environmental incidents/spillages including actions taken to resolve issues of Specific Environmental Management Plan (SSEMP);

5. Ensure instrumental environmental monitoring if needed.
 6. Ensure appointment of qualified EHS officer prior to start of works;
 7. Ensuring reinstatement of the project site to pre-works condition or better.
319. Following the award of the contract and prior to construction commencing the Contractor will review the EMP and develop this into a detailed Specific Environmental Management Plan (SSEMP) that amplifies the conditions established in the EMP that are specific for the project, the tasks involved and schedule of construction activities. The SSEMP will identify persons who will be responsible for supervising the work within the contractor's team. The SSEMP will include a matrix of mitigation measures corresponding to specific activities. As a stand-alone documents the SSEMP will be supplemented with method statements for spillage control and construction waste management. The spillage control method statement includes proper location and organization of fuel storage, filling stations and vehicle washing sites.
320. The SSEMP will also include a monitoring plan and a reporting program corresponding to the requirements of the EMP. The SSEMP will be submitted to EA for approval at least 10 days before taking possession of work site.
321. In addition to creating the SSEMP additional topic specific EMPs will be developed by the contractor (e.g. waste management plan, traffic management plan, oil spill management plan, camp management plan, etc.). In addition, at key locations a location specific EMP may also be developed.
322. Prior to the onset of the construction, the Construction Contractor must hire a consultant or a group of consultants to prepare the Traffic Management Plan. The developed plan must be agreed with the supervising company. The construction permit will be issued only if the plan developed by the Construction Contractor is approved by the supervising company and MDF. In case of absence of such a plan, the Construction Contractor will not be allowed to start the works.
323. Following approval of the SSEMP by the EA, the Contractor will be required to attend a site induction meeting with the SC's International Environmental Specialist whereby the SSEMP is confirmed with the Contractor to ensure that all compliance conditions are clearly understood. Following confirmation of the SSEMP with the Contractor the SC's Environmental Specialist advises the SC Team Leader that the Contractor is now cleared to take possession of the Site and may commence moving equipment to the Site.
324. The Contractor will be responsible for ensuring that all sub-contractors abide by the conditions of the SSEMP.

Reporting

325. Semi-annual Environmental Monitoring reports (EMRs) to be submitted within 1 month at

the end of each reporting period by the EA to ADB. Quarterly project progress reports also should have a section on environmental safeguard compliance. Semi-annual EMRs should be a concise report in respect of compliance with EMP/SSEMP requirements that will be submitted by the EA with assistance from the SC. The report will contain the following sections:

1. Details of any environmental incidents;
 2. Status of all non-conformance identified during audits and inspections that are identified by non-compliance notices;
 3. Complaints from the public and proactive community relations activities;
 8. Monthly Accident Report;
 9. Waste volumes, types and disposal;
 10. Details of any contaminated areas that have been identified and rehabilitated;
 11. Details of any archaeological discoveries;
 12. Details of any ecological issues;
 13. Other relevant environmental issues;
 10. Action plan for corrective measures.
326. The Contractor will have a duty to immediately report to the SC if any serious environmental breach has occurred during construction e.g. clearing of sensitive areas, serious oil spills etc.
327. The SC provides EA with monthly reports including review of the environmental and social aspects of the Contractor's performance, as well as HSE issues. In case of any serious accident or repeated violation requiring immediate reaction of the EA and authorities, SC sends appropriate notice to EA immediately.
328. MDF as the Executing Agency will submit semi-annual monitoring reports to ADB reflecting project progress and compliance with the safeguards requirements. The quarterly reports will include SC monthly reports and short explanatory note of MDF specialists.
329. ADBs responsibilities in regard to implementation of environmental safeguards requirements for the project include: undertaking of occasional auditing of the SSEMP implementation and due diligence as part of an overall project review mission; and if required, provide advice to MDF in carrying out its responsibilities to implement the SSEMP for the project. Institutional Capacity Building Requirements for MDF.
330. Within MDF, is the environmental and social specialist and several monitoring officers are included in the staff. Although day-to-day quality control of works will be outsourced to the engineering supervisor of works, MDF should have in-house human resources to oversee performance of such technical supervisor and to work out decision to address issues which the supervisor may bring up for MDF's attention.

Environmental documents and records

331. 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 MoEPA for approval:
1. Technical report of the stationary sources of harmful substances emitted into the atmospheric air (if necessary);
 2. Waste Management Plan (if necessary);
 3. Inventory of trees (if Red listed tree species cutting will be required)
332. The construction contractor is obliged to submit and agree the following documents and records to the supervision consultant:
1. Site specific environmental management plan (SEMP)
 2. Traffic management plan;
 3. Health and safety site-specific management plan;
 4. Noise and vibration site-specific management Plan;
 5. Asbestos contained waste management plan (if required);
 6. Emergency response plan.
 7. Camp site management plan.
333. In addition, the Construction Contractor shall keep and use the following records in practice during the construction:
1. Plan and schedule of the works to accomplish;
 2. List of the machines and equipment needed for construction;
 4. Records related to the occurring environmental problems;
 5. Records about the waste management issues;
 6. Written marking of the areas of waste disposal and waste transportation instructions issued by the local authority;
 7. Records about the supplies of necessary materials and their consumption;
 8. Complaints log books;
 9. Incident registration logs;
 10. Reports about the correction actions;
 11. Logs of equipment control and technical maintenance;
 11. Reports about the personnel training.

Costs of Implementation

334. **Waste Management.** According to "Waste Management Code" (Article 14-Waste

Management Plan of the Company), Contractor have to prepare Waste Management Plan of the Company (describing in details hazardous waste management) and submit it to the MoEPA for approval. In addition, according to the same law (article 15) – the Contractor should hire Environmental Manager and submit contact information to the MoEPA. 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.

335. **Monitoring.** The Construction Contractor must undertake permanent noise, vibration and emissions monitoring. In addition, temporary noise barriers will be necessary to install at the construction objects. Monitoring results should be included in the monthly and quarterly reports.
336. **Occupational and Community H&S.** The Contractor shall hire a qualified health and safety specialist who will provide safety training to the staff according to the requirements of the individual work place. Prior to the 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.).
337. **Staff.** The Contractor will appoint a full time Environmental Manager (EM) to be a senior member of the construction management team based on site for the duration of the contract. The SC's will appoint a Part time International Environmental Specialist.
338. Construction company will be responsible for envisaging the implementation cost of EMP, including the proposed mitigation measures (and additional activities (if any), surveys (if required by the MDF and IEE) in his project budget. Implementation of IEE/EMP is obligatory for contractor. Contractor shall be aware that the IEE will be updated.

Table 18. Environmental Management Cost

Item	Unit Cost	Total Cost	Remarks
Updating the IEE for the detailed design	-	-	-
Baseline Parametric Measurements(at least 2 points)	100 USD	200USD	To be conducted by the Contractor for noise-vibration, air emissions, dust (and water, if necessary) measurements
Monthly Parametric Measurements (at least 2 points)	200 USD	Monthly for the entire construction period	Tests to be conducted by the Contractor at 2 points

Environmental Management Specialist (SC)	2,500 USD	Monthly for the entire construction period	The costs are included in the contract signed between MDF and SC and no additional costs will occur.
Environmental specialist (Contractor)	1, 500 USD	Monthly for the entire construction period	The costs will be included in the contract signed between MDF and Contractor.
Construction dust and noise barriers (if needed)	5, 000 USD	5 000 USD	To be installed by Contractor at the construction sites temporarily if needed
Anti-COVID measures (hiring of doctor and nurse for the regular check-ups and establishing designated quarantine area, purchasing of necessary PPEs, sanitizers, handwashing facilities, face masks, etc.)	400 USD	Monthly for the entire construction period (depending on COVID situation in the country and globally)	Training should be conducted for all persons involved in construction process

Table 19. Environmental Management Matrix

Pre-Construction

Type of work	Potential negative impact	Mitigation Measures	Responsibility	Supervision
Pre-construction survey of project site	Disruption of construction works and damage to environment due to unforeseen circumstances on project sites revealed at construction phase	Survey of all new infrastructure locations including quarry, camp, construction yard. Prioritize areas within or nearest possible vacant space in the project location; If it is deemed necessary to locate elsewhere, consider sites that will not promote instability and result in destruction of property, vegetation, and drinking water supply systems; Do not consider residential areas. Take extreme care in selecting sites to avoid direct disposal to water body (river near intake) which will inconvenience the community.	Contractor	Supervision Company, MDF
Development of required plans	Damage to environment and workers health due to the absence of required plans	Site Specific Environment Management Plan (SEMP); Site Specific health and safety plan. Traffic management plan; Noise and vibration management plan; Waste management plan ; Asbestos containing waste management plan (if needed). Emergency response plan Camp site management plan Inventory of the trees to cut down (if required) Technical report of the stationary sources of harmful substances emitted into the atmospheric air (if necessary)	Contractor	Supervision Company, MDF
Obtaining of all required permits, licenses and	Damage to environment due to unauthorized use of	Licenses for inert material extraction Approval of Waste management plan by the MoEPA	Contractor	Supervision Company, MDF

approvals	natural resources, waste disposal, pollution	Approval of Technical report on inventory of atmospheric air pollution stationary source by the MoEPA (if required) Agreement on construction on waste disposal on the near east landfill Agreement on hazardous waste disposal Trees inventory report and permit for tree cut issued by local authority or by the MoEPA in case of Red listed species (if required)		
Designation of safeguards staff and providing of required trainings	Environmental, social and H&S non-compliances	Designation of Environmental and H&S specialists; Providing of trainings as defined by IEE.	Contractor	Supervision Company, MDF
Notification of local population on civil works commencement	Potential conflicts with local residents	Arrangement of information banner regarding project and indicate contact persons; Dissemination of information regarding duration of upcoming works.	Contractor	Supervision Company, MDF
Improper assessment of bidders' environmental capacity	Environmental, social and H&S non-compliances	Bids evaluation needs to be done with consideration of: capacity of bidders to meet EMPs requirements, proposing adequate budget efficient for implementation EMP, existence of good practice in environmental performance within other similar projects;	MDF	
Generation of different potential environmental impacts due to changes in design, layout	Environmental, social and H&S non-compliances	If any changes in the project design will take place, the IEE has to be updated accordingly.	MDF	
The relevance of the project design to its location within the visual security zone of the cultural heritage site	PCRs non-compliances	1. The project design shall be agreed with the National Agency for Cultural Heritage Preservation of Georgia (NACHP). The conclusion of the NACHP shall be provided that the proposed design will not damage the historically evolved environment of a cultural property, or hinder optimum visibility and full perception of the cultural property and diminish its value and therefore is		

		<p>suitable to be developed within the visual security zone of the cultural property.</p> <p>2. Consultations shall be provided with relevant stakeholders including national and local regulatory agencies (Ministry of Culture and Sport of Georgia, National Agency for Cultural Heritage Preservation of Georgia). The findings shall be reflected in the updated IEE report and project design.</p> <p>3. The experienced expert shall be hired by the construction and supervision companies to provide permanent monitoring of the construction works to detect and avoid any adverse impacts on Cultural Heritage Monuments in a timely manner.</p>		
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Construction

Type of work	Potential negative impact	Mitigation measure	Responsible entity	Supervision
Preparatory works: mobilization of the temporal infrastructure, transport and construction appliances and equipment and mechanisms needed for construction.	Emissions of harmful substances into the atmospheric air, propagation and noise propagation	<p>1. Equipping the concrete unit with relevant air-cleaning systems.</p> <p>2. Making noise-protection barriers if necessary between the noise sources and the receptors (population).</p>	Construction Contractor	Supervision Company, MDF
	Risks of pollution of surface and ground waters and soils	<p>1. Use of non-faulty construction techniques and vehicles.</p> <p>2. The machines/equipment and potentially polluting materials will be placed far from the surface water objects, in the areas protected against the atmospheric precipitations.</p> <p>3. Equipping the territory with sewage, storm-water and treatment systems at the initial construction stages.</p> <p>3. Limiting the perimeter of the oil products supply reservoirs to prevent the propagation of the pollutants in case of emergency spills.</p>		

Type of work	Potential negative impact	Mitigation measure	Responsible entity	Supervision
		4. Discharge of any kind of untreated wastewater into the rivers is to be prohibited. 5. Making the water-proof layers over the surfaces of the storing areas.		
	Negative visual-landscape change	1. Temporal structures, materials and waste will be placed at locations far and not visible from the visual receptors. 2. The color and design of the temporal structures will be chosen to suit the environment. 3. Demobilization of the temporal infrastructure and re-cultivation works following the completion of the works.		
	Risks of safety of local people and personnel	1. Use of non-faulty construction techniques and vehicles; 2. Fencing the camp territories right at the initial stage of the construction; 3. Installing the safety signs along the perimeter of the territory. 4. Protecting the perimeter of territory and controlling the movement of foreign people in the area. 5. Equipping the personnel with PPE. 6. Equipping the camps with first aid kits; 7. Ensuring electrical safety. 8. Keeping an incident registration log. 9. Personnel training at the initial stages.	Construction Contractor	Supervision Company, MDF
Cleaning the corridor off the vegetation cover and accomplishing the earth	Cutting down the vegetation cover, habitat	1. Obtaining the permit as required 2. Cutting down the trees and plants under the supervision of the specialists an authorized agency;	Construction Contractor	Supervision Company, MDF

Type of work	Potential negative impact	Mitigation measure	Responsible entity	Supervision
works. The removal of the topsoil		<p>3. The expected impact is partly compensated at the expense of re- cultivation and landscaping works.</p> <p>4. Protecting the project perimeter to prevent excess harm to the plants.</p>		
	Noise propagation, emissions of dust and combustion products	<p>1. Use of non-faulty construction techniques and vehicles;</p> <p>2. Accomplishing the noisy works during the day as far as possible;</p> <p>3. Running the vehicle drives at minimal speed.</p>	Construction Contractor	Supervision Company, MDF
	Vibration	1. In vibration persists for some time at a location (but below the threshold), mitigation in the surrounding properties should be done in terms of regular consultations and disseminating information leaflets consisting of construction activities schedule	Construction Contractor	Supervision Company, MDF
	Loss of topsoil and degradation of sites	<p>1. Cutting the topsoil and piling it in isolation from the lower soil layer and other materials.</p> <p>2. In order to avoid the topsoil erosion, the height of fill must not exceed 2 m and the inclination of the fill slope must not exceed 45°.</p> <p>3. Water-diversion channels will be made along the perimeter of the topsoil fill and will be protected against the scattering by the wind blow;</p> <p>4. In case of storing the topsoil for long, measures must be taken to maintain its qualitative properties. Periodic loosening or grass sowing is meant.</p>	Construction Contractor	Supervision Company, MDF
	Risks of pollution of surface and ground waters.	<p>1. Use of non-faulty construction techniques and vehicles;</p> <p>2. In case of spills of oil/lubricants, the spilled product will be localized/cleaned in the shortest possible time.</p>	Construction Contractor	Supervision Company, MDF

Type of work	Potential negative impact	Mitigation measure	Responsible entity	Supervision
		3. The appliances creating the risk of ground water pollution when in operation will be equipped with drip pans; 4. The vehicles must be preferably washed at private car washing areas; 5. Using temporal water diversion channels; 6. Filling the holes in a timely manner.		
	Accidental damage to cultural heritage monuments and the archeological objects	1. All construction activities shall be priory consulted and agreed with National Agency for Culturla Heritage Preservation of Georgia. 2. Special dust prevention nets will be installed to reduce air pollution around the project site. 3. Construction and Supervision Company HSE specialists shall permanently supervise all construction activities. 4. All workers will be strictly prohibited from damaging activities of the cultural heritage monuments. 5. In case of finding any strange item, stopping the works immediately and informing the technical supervisor or the Client; 6. Renewing the works only after the formal instruction is received from the technical supervisor or the Client.	Construction Contractor	Supervision Company, MDF National Agency to protect cultural environment
	Damage of PCRs	1. Special dust prevention nets shall be installed to reduce air pollution around the project site. 2. The construction contractor shall provide instrumental measurement and monitoring of noise and vibration levels during the construction and implement mitigation measures to ensure that noise and vibration levels are within the national and international standards. 3. All workers will be strictly prohibited from damaging activities around the construction territory.	Construction contractor	MDF, Supervision Company, National Agency for Cultural Heritage Preservation of Georgia (NACHP)

Type of work	Potential negative impact	Mitigation measure	Responsible entity	Supervision
	Personnel safety risks	<p>1. Contractors including subcontractors are required to carry out COVID-19 risk assessment and update the SEMP, health and safety plans (HSP) and emergency response plans (ERP) to be aligned with any relevant government regulations and guidelines on COVID-19 prevention and control, or in the absence of these, aligned with international good practice guidelines as issued by World Health Organization.</p> <p>2. Using relevant ventilation system during digging;</p> <p>3. Observing labor safety rules during the drilling;</p> <p>4. Equipping the personnel with PPE;</p> <p>4. Develop an emergency action plan outlining the measures to be taken to prevent the spread of the virus, as well as the measures to be taken in case of suspicion of the virus.</p> <p>5. Post information about COVID-19 prevention measures in the workspace;</p> <p>6. Place de-barriers at the entrance of the living room / dining room, as appropriate;</p> <p>7. Ensure hand hygiene in the workplace and inform employees;</p> <p>8. Periodically, several times a day, provide natural ventilation of enclosed spaces / storerooms;</p> <p>9. Disinfect frequently used work equipment, inventory, work tools and workplaces at regular intervals;</p> <p>10. Ensure that the workspace is arranged in such a way that employees and / or other persons in the workspace do not encounter any obstacles during the work (including timely cleaning of the facility and timely removal of construction waste);</p> <p>11. Placement of containers for wipes or other hygienic waste used by employees and visitors.</p>	Construction Contractor	

Type of work	Potential negative impact	Mitigation measure	Responsible entity	Supervision
Transportation	Noise propagation, emissions of dust and combustion products	<ol style="list-style-type: none"> 1. Use of non-faulty construction techniques and vehicles; 2. Limiting the driving speeds; 3. Maximally limiting the use of public roads and searching for and using alternative routes. 4. Watering the working surfaces in dry weather. 5. Duly covering the vehicle body during the transportation of dusty materials. 6. Informing the population about the forthcoming intense vehicle movement. 	Construction Contractor	Supervision Company, MDF
	Damage to the local road surfaces	<ol style="list-style-type: none"> 1. Limiting the movement of heavy techniques along the public road as much as possible; 2. Restoring all damaged road sections as much as possible to make the roads available to the people also other local infrastructure, and agricultural lands to at least their pre-works conditions upon completion of construction. 	Construction Contractor	Supervision Company, MDF
	Overloaded transport flows, limited movement	<ol style="list-style-type: none"> 1. Selecting an optimal bypass to the working area; 2. Installing road signs and barriers at necessary locations; limiting the movement of heavy techniques along the public road as much as possible; 3. Using flagmen in case of intense traffic; 4. Making temporal bypasses; 5. Informing the population about the time and periods of intense transport operations. 	Construction Contractor	Supervision Company, MDF

Type of work	Potential negative impact	Mitigation measure	Responsible entity	Supervision
	Risks of safety of local people and personnel	<ol style="list-style-type: none"> 1. Use of non-faulty construction techniques and vehicles; 2. Driving the vehicles with admissible speeds. 3. Minimizing the use of the roads crossing the settled areas; 4. Limiting the traffic on holidays 	Construction Contractor	Supervision Company, MDF
Construction works	Deterioration of ambient air; Noise and vibration	<ol style="list-style-type: none"> 1. Use water spray or install dust screen enclosures; 2. Timely removal of all debris and construction waste from the site; 3. Watering or cover temporary storage waste; 1. Development and implementation of Noise and Vibration management and monitoring plans; implementation of appropriate measurement in accordance with the plan; apply mitigation measures (if needed); 2. Use of non-faulty construction techniques and vehicles; 3. Accomplishing the noisy works during the day as far as possible; 4. If vibration persists for some time at a location (but below the threshold), mitigation in the surrounding properties should be done in terms of regular consultations and disseminating information leaflets consisting of construction activities schedule 	Construction Contractor	Supervision Company, MDF
Waste management	Irregular propagation of waste, environmental pollution	<ol style="list-style-type: none"> 1. Delivering the construction and other necessary materials only in needed quantities. 2. Re-using the waste as much as possible, including the use of inert materials for make the roadbed. 3. Arranging the temporal waste storage areas and equipping them with relevant signs. 4. Assigning the duly qualified personnel for waste management. 	Construction Contractor	Supervision Company, MDF

Type of work	Potential negative impact	Mitigation measure	Responsible entity	Supervision
		<p>5. Instructing the personnel.</p> <p>6. A detailed "Waste Asbestos-Containing Material Management Plan" is to be implemented during construction and demolishing works. Make sure that old pipes (especially asbestos) are not excavated or touched. The new pipes will have to be laid along to the existing. Asbestos contained waste shall be handled in accordance with the technical regulations on Special Requirements for Collection and Processing of Hazardous Wastes approved by the GoG Resolution # 145, dated March 29, 2016 and GoG resolution #421, adopted August 11, 2015 "On Approval of the Technical Regulation on Landfill Arrangement, Operation, Closure and Post-Maintenance".</p>		

Operation stage

Type of work	Expected negative impact	Mitigation measure	Responsible entity
	Waste propagation; propagation of oil products.	<p>1. Regular cleaning of the rehabilitated infrastructure;</p> <p>2. Regular cleaning and repairing of water channels and pipes</p>	Telavi Municipality City Hall
	Emergency risks	<p>1. Permanent control of the technical state of the infrastructure and accomplishing the relevant rehabilitation measures immediately after any damage.</p> <p>2. Equipping the access road with relevant road signs;</p>	Telavi Municipality City Hall
Planned repairs and preventive works	Propagation of polluting substances (water, soil pollution) during the repairs and replacement	1. In order to avoid the dissipation of the materials used to reparation, the relevant works must be planned in an expedient manner.	Telavi Municipality City Hall

Type of work	Expected negative impact	Mitigation measure	Responsible entity
Water supply (groundwater extraction)	Damage to environment due to unauthorized use of natural resources	Obtaining of license for groundwater extraction	Telavi Municipality City Hall

ENVIRONMENTAL MONITORING PLAN

339. As the previous chapters of the IEE report note, there are risks of certain impacts on some environmental receptors during the activity. One of the preconditions for reducing the negative nature and value is the correct management of the strict and well-planned activity under strict supervision (environmental monitoring).
340. An environmental monitoring plan is presented in Table 20, which outlines the activities and responsibilities associated with monitoring the effectiveness of the proposed mitigation plan and ensuring compliance with the recommendations of the IEE.
341. The monitoring methods incorporate visual observation and measurements (if needed). The monitoring program describes the 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.
342. The environmental monitoring plan must cover the issues, such as:
- Assessment of the baseline of environment;
 - Identification of the reasons for changes in the environment and evaluation of the outcomes;
 - Identification of the correction measures when the target values cannot be reached;
 - Regular supervision over the degree and dynamics of the impact of the activity on the environment;
 - Compliance with the legal requirements for impact intensity;
 - Control over the set parameters associated with significant ecological aspects;
 - Prevention and timely identification of the possible violations related to ecological aspects or emergencies during the activity.
343. The following are subject to the regular observation and evaluation in the course of environmental monitoring:
- Atmospheric air and noise;
 - Water;
 - Soil;
 - Labor conditions and meeting the safety standards, etc.

Table 20. Environmental monitoring plan

What? (Is the parameter to monitor)?	Where? (Is the parameter to monitor)?	How? (Must the parameter be monitored)?	When? (Frequency or duration of monitoring)	Who (Is responsible for monitoring)?
Dust propagation, exhaust fumes NO _x , SO ₂ , CO	1. Construction camp; 2. Construction site; 3. Transportation routes; 4. The nearest Buildings 5. Sensitive receptors	Instrumental measurement	1. Checking dust propagation – during the intense operations and vehicle movement, particularly in dry and windy weather. 2. Checking the technical state - at the start of the working day; 3. Instrumental measurement - in case there are complaints	Contractor EHS/ environmental specialist; SC
Water pollution	Water body near the project site	Visual observation	Checking pollution of river bed by dumping of construction waste	Contractor EHS/ environmental specialist; SC
Noise propagation	The nearest residential houses and public offices	Instrumental measurement	Once a week in case there are complaints	Contractor EHS/ environmental specialist; SC
5. Sensitive receptors	5. Sensitive receptors	5. Sensitive receptors	5. Sensitive receptors	5. Sensitive receptors
Traffic	Along the materials and waste transportation routes	Visual observation	Permanently	Contractor EHS/ environmental specialists; SC
Engineering-geological stability	Sensitive instable sections	1. Visual observation; 2. Periodic examinations by the engineering geologist.	Particularly after the periods with precipitations;	Contractor EHS/ specialist; SC

What? (Is the parameter to monitor)?	Where? (Is the parameter to monitor)?	How? (Must the parameter be monitored)?	When? (Frequency or duration of monitoring)	Who (Is responsible for monitoring)?
Soil and ground quality	1. Areas adjacent to the construction camps; 2. Construction sites; 3. Materials and waste storage areas.	Visual observation: 1. No significant oil spills are observed; 2. Laboratory control	Visual observation - at the end of the working day; Laboratory examination - in case of large spills	Contractor EHS/ environmental specialists; SC
Temporal storage of the removed ground and topsoil	1. Construction sites; 2. Ground storage areas.	Visual observation: 1. The lower soil layer and topsoil are piled separately. 2. The height of the topsoil pile does not exceed 2 m. 3. The inclination of piles does not exceed 45°. 4. The soil is placed far from the surface water objects. 5. There are water diversion channels along the perimeter of the storage area; 6. The soil is stored temporarily at places preliminary agreed with the technical supervisor.	Every day following the completion of ground works.	Contractor EHS/ environmental specialists; SC
Vegetation cover	1. Construction sites	Visual observation: 1. The works within the limits of the marked zone and no additional harm or plants or illegal cuttings take place.	Visual observation - at the end of the working day;	Contractor EHS/ environmental specialists; SC

What? (Is the parameter to monitor)?	Where? (Is the parameter to monitor)?	How? (Must the parameter be monitored)?	When? (Frequency or duration of monitoring)	Who (Is responsible for monitoring)?
Waste management	1. Construction camps; 2. Construction sites; 3. Temporal waste storage areas;	Visual observation: 1. The sites of temporal waste disposal are assigned in the construction area and are duly marked. 2. The storage areas for hazardous waste are protected against the penetration of strangers and against the weather impact; 3. On the territory, at due locations, there are marked containers to collect domestic waste. 4. The sanitary condition of the territory is satisfactory – no dissipated waste is observed. 5. The waste is not stored on the territory for long;	1. Visual observation - at the end of each working day; 2. Checking of documents on amounts of produced and disposed wastes	Contractor EHS/ environmental specialists; SC
	1. Construction Contractor's office	1. Checking the waste registration log, 2. Checking the documented agreement about waste disposal	1. Document check - once a month	Contractor EHS/ environmental specialists; SC
Oils and oil products management	1. Construction camps; 2. Warehousing facilities	Visual observation: 1. The protected areas for oils, oil products and other liquid products marked in a due manner;	1. Visual observation - at the end of each working day; 2. Document check on amounts and types of oil products	Contractor EHS/ environmental specialists; SC

What? (Is the parameter to monitor)?	Where? (Is the parameter to monitor)?	How? (Must the parameter be monitored)?	When? (Frequency or duration of monitoring)	Who (Is responsible for monitoring)?
Technical state of the access road, possibility of free movement	1. Corridors of the transportation routes	Visual observation: 1. The vehicles move along the routes specified in advance, bypassing the settled areas as far as possible. 2. The state of the driving routes is satisfactory. 3. Free movement is not limited. 4. Driving speeds are observed.	1. During the intense transport operations	Contractor EHS/ environmental specialists; SC
Labor safety	1. Working area	Visual observation: 1. The territory is fenced and protected against the illegal penetration of strangers, 2. The personnel are equipped with PPE. 3. The technical state of the exploited equipment and mechanisms is satisfactory. 4. Electrical and fire safety is ensured. 5. The safety, prohibiting and information signs are installed on the territory and along its perimeter. 6. There is a banner on the territory with the basic safety rules. 7. Smoking areas are specially assigned.	1. Visual observation- before the onset of each working; 2. Documents on site trainings and daily tool boxtals on health and safety	Contractor specialist; SC EHS

What? (Is the parameter to monitor)?	Where? (Is the parameter to monitor)?	How? (Must the parameter be monitored)?	When? (Frequency or duration of monitoring)	Who (Is responsible for monitoring)?
		Unscheduled control (Inspection): 1. The personnel observe the safety rules and use the PPE.	Inspection - regularly.	Contractor specialist; SC EHS
PCRs safety	Cultural heritage monument	Visual observation: 1. The area around the cultural heritage monuments is free of debris and mud; 2. No waste is disposed around the cultural heritage monuments	Inspection - regularly.	Contractor specialist; SC EHS

K. CONCLUSIONS AND RECOMMENDATIONS

344. Based on results of the conducted IEE the following conclusions could be done:
345. The proposed project was assessed against the laws of Georgia and ADB's safeguard. At the stage of the document preparation, possible environmental impacts were identified and relevant mitigation measures were developed.
346. The methodology to undertake and complete an IEE included a combination of methods and data collection tools. In particular, the IEE was prepared based on the results of: (a) review of background documents and information available on public domain; (b) online meetings with representatives of Telavi Municipality representatives, consultants, design Institute and other stakeholders; (c) review of technical standards and norms; (d) analysis of the baseline information and planned construction activities in order to identify potential impact, measure their significance and identify mitigation measures. Several field visits have been conducted at the preparation stage of the IEE, including sampling of air, water and soil and measurement of noise background to obtain baseline data.
347. The project will be implemented on privately owned territories envisages rehabilitation of Erekle II, Cholokashvili and Kiknadze streets are foreseen, where a number of cultural heritage monuments and objects are located, Also, there will be arranged a fountain to the west side of Batonis Tsikhe which is an architectural monument. Moreover, rehabilitation of cultural heritage site - Telavi Elene Akhvlediani Children's Art School is planned. As project plans interventions within the cultural heritage monuments and will be implemented in the areas having high historical and cultural importance, the project triggers ADB SPS environmental policy principle on physical cultural resources (PCRs). According to the requirements of Georgian legislation the project design shall be agreed with the National Agency for Cultural Heritage Preservation of Georgia (NACHP). Therefore, the project design has been agreed with the Agency for Cultural Heritage Preservation of Georgia and confirmation letter (dated 30.10.2020 N12/3800) on approval of works to be undertaken on Telavi Elene Akhvlediani Children's Art School has been obtained. NACHP has reviewed the revised sketch design for indoor rehabilitation works for Elene Akhvlediani Art School. As a result, it was noted that rehabilitation works of the building can be executed based on the documents submitted. Clearing of the lower floor off earth may identify new circumstances which shall be reflected under design documents during the construction stage. NACHP has also reviewed detailed design of Rehabilitation of Public Recreation Zones and Touristic Routes In Telavi and provided confirmation letter on December 19, 2019 for the envisaged works with the recommendations to be considered during the construction phase.
348. Temporary disturbance of local population is expected during the construction works, which shall be connected with the demolition and construction activities and transportation of the construction materials and equipment. In other cases, the impact on the social environment shall be positive, because temporary employment of the local population is expected;

349. During the functioning of the pathways, public parks and rehabilitated buildings and streets the negative impact on physical environment and biological systems is not expected;
350. Only positive impact on the social system is expected during the functioning of the rehabilitated infrastructure, The Project is expected to have long-term positive impact on the population of city Telavi, especially young people and working parents who will get access to well planned, high quality service.
351. The Construction Contractor is obliged to conclude the contract only with the companies holding the license to extract inert materials. If the company decides to extract the inert materials itself, it is obliged to obtain the license from the National Agency of Mines.
352. Technical characteristics and decision about dumpsites have not been made currently. Detail characteristics of these infrastructures will be provided in the site specific environmental management plans. Telavi City is served by a landfills located in village Vardisubani, managed by the Ltd "Solid Waste Management Company of Georgia".
353. During the functioning of the Telavi City Historic Part Rehabilitation project the negative impact on physical environment and biological systems is not expected;
354. Only positive impact on the social system is expected during the Telavi City Historic Part Rehabilitation project, which shall be connected with the employment of the certain number of workers.
355. Project implementation will support local touristic potential, which will enable the government to further develop the tourist infrastructure of the area.
356. Mitigation of construction impacts will be assured by an environmental monitoring program to ensure all measures in the EMP are implemented and to determine whether the environment and communities around the project sites are protected as intended. This will include observations on and off-site, document checks, instrumental monitoring of environmental parameters such as noise and vibration levels, air quality etc. Any requirements for remedial action will be reported in environmental monitoring reports.

Recommendations

357. The following are recommendations applicable to the project to ensure no significant adverse environmental impacts that are irreversible, diverse, or unprecedented; and remain within the sites or facilities subject to physical works:
- Include this IEE with the EMP in bid and contract documents;
 - Update/revise the IEE based on site-specific conditions, contractors working methodology, and/or if there are unanticipated impacts, change in scope, alignment, or location;
 - Require contractor to submit SSEMP prior to start of works and do not allow works until SSEMP has been cleared by MDF

- Ensure that the existing materials to be removed from the site are tested for hazardous contents and action plan for handling, storage, transport, and disposal of the wastes is prepared, informed to the contractors, and strictly monitored during project implementation.
 - Ensure that wastes (solid and liquid) should be stored and disposed at designated site/facility (dumping on vacant lot is not allowed);
 - Conduct safeguards induction to the contractor upon award of contract;
 - Strictly supervise EMP implementation;
 - Ensure contractor appointed qualified EHS officers prior to start of works;
 - Documentation and reporting on a regular basis as indicated in the IEE;
 - Continuous consultations with stakeholders;
 - Timely disclosure of information and establishment of GRM;
 - Involvement of contractors, including subcontractors, in first-level GRM; and
 - Commitment from MDF, supervision consultants, and contractors to protect the environment and the people from any impact during project implementation.
358. The EMP, its mitigation and monitoring programs, contained herewith will be included within the Bidding documents for project works for all Project components. The Bid documents state that the Contractor will be responsible for the implementation of the requirements of the EMP through his own SSEMP which will adopt all of the conditions of the EMP and add site specific elements that are not currently known, such as the Contractors borrow pit locations. This ensures that all potential bidders are aware of the environmental requirements of the Project and its associated environmental costs.
359. The EMP and all its requirements will then be added to the Contractors Contract, thereby making implementation of the EMP a legal requirement according to the Contract. He will then prepare his SSEMP, which will be approved and monitored by the Engineer. Should the Engineer note any non-conformance with the SSEMP (and the EMP) the Contractor can be held liable for breach of the contractual obligations of the EMP. To ensure compliance with the SSEMP the Contractor should employ an Environmental Manager to monitor and report Project activities throughout the Project Construction phase.
360. The management of the Construction Contractor will provide periodic training and testing regarding the observance of the environmental protection and job safety rules by the personnel engaged in the project implementation activities.
361. A strict control over the observance of the safety requirements and hygienic norms by the personnel will be introduced.
362. Before starting the construction works, the contractor shall conduct the following surveys: noise and vibration soil contamination, air pollution and flora and fauna species to identify baseline situation;

363. Prior to the commencement of the construction works, the Construction Contractor is obliged to prepare the following environmental plans: (i) Site-specific environmental plan. (ii) Noise and vibration management plan; (iii) Traffic management plan; (iv) Waste management plan; (v) Health and safety management plan, (vi) Emergency response plan; (vii) Camp site management plan. Inventory of trees shall be conducted if required. Technical report of the stationary source of harmful substances emitted into atmospheric air shall be prepared if required.
364. The Construction Contractor must undertake all mitigation measures to minimize the noise, vibration and other air emissions.
365. In the project operation phase, periodical monitoring of noise level and air quality is necessary. If the noise and air pollution levels increase against the admissible standards, it will be necessary to develop and implement additional mitigation measures.

Attachment 1. Impact Assessment Criteria¹⁶

Table 21. Noise and vibration propagation – Impact Assessment Criteria

Kind of impact	Assessment criteria		
	<i>Significant (high) impact</i>	<i>Average impact</i>	<i>Insignificant (low) impact</i>
<u>Noise propagation</u>	Noise levels at the border of the settled area exceed 55 dbA during the day and 45 dbA at night, or exceeds 50 dbA during the day and 40 dbA at night at sensitive receptors. Excess noise levels are intense. Population's dissatisfaction is inevitable.	Noise levels at the border of the settled area little exceed 55 dbA during the day and 45 dbA at night; however, the impact is expected only in some cases or is temporal. The noise levels at the sensitive receptors are admissible; however, additional preventive measures are recommended.	The noise background levels have deteriorated a bit near the settled areas or sensitive receptors. In any case, no levels in excess of the admissible levels are expected. It is sufficient to take standard mitigation measures.
<u>Vibration</u>	Due to the use of heavy technique and other methods, vibration spreads to great distances. There is a probability of damage or destruction of buildings and premises, monuments of cultural heritage or disturbance of geological stability.	Vibration does not spread to far places, or the impact is short-term. The probability of damage of buildings and premises, monuments of cultural heritage or disturbance of geological stability is very little. Minor and periodic discomfort is expected.	Vibration propagates only in the working zone. No damage of buildings and premises, monuments of cultural heritage or disturbance of geological stability is expected. No additional mitigation measures are needed.
<u>Condition of the working area (noise and vibration)</u>	It is impossible to work. Using ear-plugs or other protective equipment is less inefficient. It is necessary to change the service staff frequently.	Noise and vibration is a nuisance in the working area; but working is possible provided the relevant protective equipment are used or other measures are taken (e.g. cutting the working hours and the like).	The noise and vibration levels in the working zone are not high. No PPE is needed, or if needed only for short periods. An 8-hour-long working day is permitted.

¹⁶ The presented tables, under the attachment 1, represent the criteria of environmental assessment and it is a part of assessment methodology carried out in order to evaluate potential impacts and risks for presented project.

Table 22. Assessment Criteria of the expected impact on water

Kind of impact	Assessment criteria		
	<i>Significant (high) impact</i>	<i>Average impact</i>	<i>Insignificant (low) impact</i>
<u><i>Changed flow rate of the surface waters</i></u>	Under the project impact, the natural river flow rate is strongly changed (either for the year, or temporarily); it is difficult to maintain the present state of the water eco-system. Other water-consuming unit has a limited access to water, Or due to the increased water flow, the risk of developing hazardous hydrological events has increased.	Under the project impact, the natural river flow rate reduced to 70%(either for the year, or temporarily); however, the water eco-system is mostly maintained. The access of another water-consuming unit to water has not changed, or Under the project impact, the natural river flow rate increased to 110%. The risks of developing the hazardous - hydrological events are possible to eliminate by using relevant protective measures.	Under the project impact, the natural river flow rate reduced to 70% (either for the year, or temporarily). The access of another water-consuming unit to water has not changed, or the unit is not used for other purposes. The river flow rate will not increase under the impact of the project.
<u><i>Deterioration of the surface water quality, origination of the sewage</i></u>	Fishing or drinking-and-industrial water object is under the impact, or Significant amount of sewage is expected. Despite building the treatment plant, there is a probability of discharging the excessively polluted waters, or the probability of emergencies is high. Due to the near location of the water body, there is a possibility for the solid remains and liquid mass to enter the water body.	An industrial-household water unit is under the impact. Sewage is originated; however, at the expense of relevant preventive measures (arranging the duly efficient treatment plant, etc.) it is possible to maintain the qualitative state of the surface water. The existing quality may be changed a bit what will have a minor impact on the water biodiversity, or the probability of emergencies to occur is not high. In such a case, the distances are so great that the risks of the polluting substances flowing into the water are minimal.	There are no surface waters near the water object. Therefore, there is only the possibility of indirect impact, which is not major. No sewage is expected to originate, or the small amounts of liquid remains can be managed by using the methods safe for the water environment (e.g. by an evaporating pond, recycling the liquid remains, etc.).

Kind of impact	Assessment criteria		
	<i>Significant (high) impact</i>	<i>Average impact</i>	<i>Insignificant (low) impact</i>
<u>Ground water pollution</u>	The activity implies using the methods creating the risks of excess pollution of the ground waters (e.g. burying the materials containing polluted substances, etc.); mitigation measures are less efficient, or the probability of emergencies to occur is quite likely with the infiltration of the large amounts of oil products or other polluting substances into the ground layers.	The activity implies using the methods creating certain risks of pollution of the ground waters; however, using the mitigation measures is efficient and significantly reduce the risks, or there is probability of emergencies to occur; however, relevant preventive measures are taken.	The risks of the ground water pollution are associated with the unforeseen cases only (minor oil product leakages from technique or equipment and the like.). No large amounts of liquid polluting substances are stored or used in the area threatening the ground waters in case of accidents.
<u>Impact on the flow rate of the ground waters, changed infiltration properties of the grounds</u>	The activity envisages arranging deep engineering facilities, with which it is possible to cross the underground water-bearing infrastructure. As a result, the outflows of the underground waters may decrease, or The activity envisages using large land areas/cutting down the forests what will deteriorate the ground infiltration properties. This may reduce the intensity of the underground water alimentation with the atmospheric precipitations.	The activity does not envisage arranging deep engineering facilities, and in addition, there are no particularly significant water-bearing horizons spreading on the territory. Despite this, cultivation of land areas or the used building and exploitation methods may have a certain impact on the outflows of less valuable springs.	By considering the small project area, used building and exploitation methods and existing hydro-geological conditions, the impact on the flow rate of the underground waters will be minor. No impact on either drinking, or industrial water is expected.

Table 23. Assessment Criteria of the expected impact on the soil

Kind of impact	Assessment criteria		
	<i>Significant (high) impact</i>	<i>Average impact</i>	<i>Insignificant (low) impact</i>
<u>Damage and erosion of the fertile soil layer</u>	The project envisages using over 12,5 ha of agricultural plots or other land areas highly valuable in respect of fertility, or the methods used during the building and exploitation promote the activation of the soil erosion processes over significant areas.	The project envisages using less than 12,5 ha of agricultural plots or other land areas valuable in respect of fertility, or the area to manage is more than 12,5 ha, but this is not an agricultural land or is not otherwise valuable, or The methods used during the building and exploitation promote the activation of the soil erosion processes in some areas, but they can be prevented by using the relevant mitigation measures.	The project envisages using less than 12,5 ha of non-agricultural plots or other land areas less valuable in respect of fertility. Provided the fertile soils layer is duly managed, the impact will be minimal. No erosion beyond the used perimeter is expected.
<u>Soil/ground pollution</u>	Due to the methods used during the building and exploitation, the risks of polluting the fertile layer of the agricultural land of any area (exceeding MAC) are quite high or virtually inevitable or the probability of developing such emergencies leading to the pollution of over 100 m2 area or over the depth of 0,3 m of soil and ground is quite high.	Due to the methods used during the building and exploitation, there are risks of polluting the less valuable surface layer of lands (exceeding MAC) or there is a probability of developing such emergencies leading to the pollution of less than 100 m2 area or less than the depth of 0,3 m of soil and ground.	Only minor local pollution of soil/ground is expected, mostly in unforeseen cases. The technology of local cleaning the polluted soil can be used.

Table 24. Assessment criteria of the expected impact on the geological environment

Kind of impact	Assessment criteria		
	<i>Significant (high) impact</i>	<i>Average impact</i>	<i>Insignificant (low) impact</i>
<u>Violation of the stability of the geological environment under</u>	The project is planned to implement in the relief with the III degree of complexity in engineering-geological	The project is planned to implement in the relief with the II degree of complexity in engineering-geological respect. During	The project is planned to implement in the favorable relief. No significant resources to build protective structures

Kind of impact	Assessment criteria		
	<i>Significant (high) impact</i>	<i>Average impact</i>	<i>Insignificant (low) impact</i>
<u>the project impact, activation of hazardous processes</u>	respect. During the earthworks, the probability of activation of such hazardous geodynamic processes, as landslide, rock fall, mudflow, etc. exists, or the risks of activation of the same processes exist in the operation phase of the object (hydrotechnical facilities, underpass, etc. can be considered as such object). It is necessary to build the protective facilities of complex structures or to make corrections to the project.	the earthworks or in the operating phase, the probability of activation of hazardous geodynamic processes. However, provided the protective measures in terms of simple-structure facilities these can be prevented.	are needed. Only local, minor erosive processes may develop.
<u>Impact of the existing engineering-geological conditions on the project facilities</u>	The engineering-geological properties of the grounds are not favorable needing building deep foundations to establish the facilities on the cliffy rocks, or hazardous geodynamic processes threaten the stability of the object. It is necessary to build the protective facilities of complex structures or to make certain corrections to the project.	The engineering-geological properties of the grounds allow founding the object, but under certain conditions. The degree of the environment (ground and ground waters) aggressiveness to the reinforced concrete is satisfactory, or hazardous geo-dynamic processes pose a certain threat to the object's stability; however, the risk may be eliminated by taking protective measures of a simple structure.	The object is not a facility of a complex structure. The engineering-geological properties of the territory-constituent grounds are satisfactory. Consequently, there is no need for either deep foundations, or significant measures to protect the engineering facilities.

Table 25. Assessment criteria of the expected impact on the biological environment

Kind of impact	Assessment criteria		
	<i>Significant (high) impact</i>	<i>Average impact</i>	<i>Insignificant (low) impact</i>
<u>Generic and quantitative changes in the vegetation cover</u>	The project implementation will lead to the destroy of the endemic or Red-Listed species or the project implementation will lead to the use of the forested area over 1 ha or there is a risk for invasive kinds to spread	Following the project implementation, the risks of direct or indirect impacts on the endemic or Red-Listed species are minimal or the project implementation will lead to the use of the forested area less than 1 ha	Following the project implementation, there is no risk of impact on the endemic or Red-Listed species. Only the destruction of the homogenous low-value vegetation cover is expected. There is no risk for invasive species to spread.
<u>Deterioration of the animal habitats, habitat loss or fragmentation endemic and Red-Listed animal</u>	The project implementation will lead to the destroy, reduction or fragmentation of the area of the endemic and Red-Listed animal species or certain species may be reduced or certain population may disappear in the project implementation area or the object is a linear object creating a kind of barrier for migrating animals or there is a risk for invasive kinds to spread.	Following the project implementation, the impact on the endemic or Red-Listed species is less likely. The area of such living organisms with no ability to migrate to long distances may decrease, or quantitative changes of certain species are expected in the project implementation area, but their destroy is not likely.	The project area is under the anthropogenic impact and is not a shelter for animal species. Only the animals adapted to the human activity live in the area with high ecological valency. The object is not a barrier hampering the migrating animals.
<u>Immediate impact on fauna species</u>	Due to the project implementation, there are some cases of animal perish (including endemic or Red-Listed species) during the year, or increased probability of poaching.	Due to the project implementation, there are few cases of animal perish (less valuable species) during the year	Perish of the animal species is less likely. The impact is short-term. The probability of increased poaching is minimal.
<u>Direct or indirect impacts on the protected areas</u>	Due to small distance and following the methods used at the building and	Following the methods used at the building and exploitation stages, there is	Due to a great distance, an impact on the protected area is less likely.

Kind of impact	Assessment criteria		
	<i>Significant (high) impact</i>	<i>Average impact</i>	<i>Insignificant (low) impact</i>
	exploitation stages, there are risks of long-term direct or indirect impacts on the territory.	a risk of indirect impact on the protected area, but the impact is not long.	

Table 26. Assessment criteria of the expected impact on the visual-landscape environment

Kind of impact	Assessment criteria		
	<i>Significant (high) impact</i>	<i>Average impact</i>	<i>Insignificant (low) impact</i>
<u>Landscape impact</u>	The project implementation is planned within the limits of the rare and high-value landscapes, or the landscape and its components are in fact intact and have high degree of naturalness.	The project implementation is planned within the limits of a regional or local landscape or the landscape and its components are partially transformed due to the human actions. They have an average degree of naturalness.	The project implementation is planned within the limits of a low-value landscape, which can be substituted, or the landscape and its components are quite devastated due to the man's economic activity.
<u>Visual changes</u>	The project area is easily seen from many locations. Implementation of the activity will have a significant impact on the visual effect for the local people or tourists.	The project area is seen from some observation points having no touristic value.	The project area is almost invisible. The building and exploitation will have a minimal impact on the visual effect for the local people or tourists.

Table 27. Assessment criteria of the expected impact on the social environment

Kind of impact	Assessment criteria		
	<i>Significant (high) impact</i>	<i>Average impact</i>	<i>Insignificant (low) impact</i>
	<i>Positive impact</i>		
<u>Increased budgetary flows</u>	Increased central budgetary flows	<i>Increased budgetary flows</i>	Increased central budgetary flows
<u>Employment and growing income of the population</u>	The possibility to hire 70% of workforce from local population	A total of 30 to 100 people employment opportunities.	10 persons employment opportunity.

Kind of impact	Assessment criteria		
	<i>Significant (high) impact</i>	<i>Average impact</i>	<i>Insignificant (low) impact</i>
	or The possibility to hire 40% of workforce from local rural residents or the possibility to hire 20% of workforce from local population in the high-mountain villages.	or Local villagers from 10 to 30 people employment opportunities. or Highland status of rural residents few employment opportunities.	
<u>Improvement of transport infrastructure</u>	Improvement of the technical state of the international, state and regional roads, high probability of distress of transport intensity.	Improvement of the technical state of the roads in some or high-mountainous village and easy transportation.	Simplified rehabilitation of rural roads and transportation
<u>Other social-economic benefit</u>	At a country, regional or municipal level, or for several high-mountainous villages: 1. Improved waste management conditions. 2. Improved water-supply and water-drainage conditions. 3. Improved power supply and gas supply conditions. 4. Improved accessibility to other kinds of resources.	For several or high-mountainous villages: 5. Improved waste management conditions. 6. Improved water-supply and water-drainage conditions. 7. Improved power supply and gas supply conditions. 8. Improved accessibility to other kinds of resources.	Only some families (homesteads) receive various social-economic benefits.
<u>Negative impact</u>			
<u>Resettlement, need to use private property</u>	One of several cases of physical resettlement, or over 10 cases of economic resettlement, or	Up to 10 cases of economic resettlement. Provided the compensation measures are taken, no population's dissatisfaction is expected	No physical or economic resettlement is expected. Temporal use of the privately owned land plots and units may be needed, with the relevant compensation measures planned.

Kind of impact	Assessment criteria		
	<i>Significant (high) impact</i>	<i>Average impact</i>	<i>Insignificant (low) impact</i>
	one or several cases of economic resettlement in a high-mountainous village		
<u>Deterioration of transport infrastructure</u>	Deterioration of the technical condition of the international, state and regional roads, significant increase of transport intensity.	Deterioration of the technical condition of the roads in some or high-mountainous villages or significant increase in vehicle movement; however, the impact is temporal.	No deterioration of local roads or significant increase of transport intensity is not expected.
<u>Other negative social-economic effects</u>	At a country, regional or municipal level, or for several high-mountainous villages: 9. Deteriorated waste management conditions and landfill overload. 10. Deteriorated water-supply and water-drainage conditions or overloaded relevant systems 11. Limited accessibility to other resources.	For several or high-mountainous villages: 12. Deteriorated waste management conditions and landfill overload. 13. Deteriorated water-supply and water-drainage conditions or overloaded relevant systems 14. Limited accessibility to other resources.	For several families 15. Deteriorated waste management conditions and landfill overload. 16. Deteriorated water-supply and water-drainage conditions or overloaded relevant systems 17. Limited accessibility to other resources. However, the problem can be solved by searching alternative routes.

Table 28. Assessment criteria of the expected impact on the historical-cultural monuments

Kind of impact	Assessment criteria		
	<i>Significant (high) impact</i>	<i>Average impact</i>	<i>Insignificant (low) impact</i>
<u>Damage to the historical-cultural monuments</u>	Due to the small distance and following the methods used in the building and exploitation phases, there is a probability of damaging the monuments of the international or local historical-cultural heritage.	Due to the small distance and following the methods used in the building and exploitation phases, there is a probability of damaging the monuments of the local historical-cultural heritage.	Due to the great distance, the probability of damaging the monuments of historical-cultural heritage is less likely.

Kind of impact	Assessment criteria	
	<i>Significant (high) impact</i>	<i>Insignificant (low) impact</i>
<u>Unforeseen damage to the archeological monuments</u>	Following the historical designation of the project area, there is a probability of the late identification of the archeological monuments.	The area is quite anthropogenic. Therefore, identification of the recent archeological monuments is less likely.

Attachment 2. Minutes of Online Meeting with Stakeholder

TOURIST ROUTES DEVELOPMENT FOR SEVEN HISTORICAL HILLS IN TELAVI CITY Minutes of Online Meeting with Stakeholders

The Municipal Development Fund of Georgia (MDF) – LEPL is intending to implement the project – “Development of Tourist Routes for Seven Historical Hills in Telavi City” with financial support of the Asian Development Bank (ADB).

Rehabilitation works in Telavi consist of a number of various components, such as rehabilitation of the Zuzumbo hill, theater building, Erekle II central street, Elene Akhvlediani art school, Zaira kikvidze, Aleksandre Chavchavadze and Cholokashvili streets, Parking area, Gigo's hill and Dabakhnevi Hill.

In order to discuss environmental and social documentation - Initial Environmental Examination (IEE) and Social Due Diligence Report (SDDR) prepared for the Project, on the 10th and 15th of June, 2021 at 15:00. A public consultation meetings were conducted in the social network (via Zoom and Google Meet), as the COVID 19 outbreaks and there are existing related restrictions. Prior to the meeting, representatives of City Hall and local residents were informed personally by phone about the planned online meeting by the Communication Consultant – Irakli Japaridze. Additionally, informational banners on the forthcoming meetings were disclosed in the public spaces.

The consultations aimed at keeping the stakeholders abreast of works to be carried out in course of rehabilitation period. Apart from the said, the consultancies mainly focused on briefing them in detail on the aforesaid environmental and social documentation, in order to inform them of all planned activities and mitigation measures to be carried out at various stages of project implementation.

For rendering document introduction process maximally effective and achieving a face to face meeting effect online, public meetings were underway over the course of several days.

Development of Tourist Routes for Seven Historical Hills In Telavi City is one of the project, implemented under the Livable Cities Investment Program. The project area is located in the central part of Telavi City and includes several sites such as “Zuzumbo Hill”, “Dabakhnevi Hill” “Kadori Hill”, “Ghvtaeba Hill”, “Concrete Castle”, “Pikri Hill” “Gigo Hill”, central square, Saakadze Square, Cholokashvili Street, Erekle II Avenue and Nadikvari Street. The project aims at development of a new tourist route and public recreational spaces, tourist facilities and their infrastructure in the historical part of Telavi, which will have a positive impact on the economic development of the city due to increasing the number of local and foreign visitors.

The project envisages arrangement of tourist route and public recreational areas between the historical hills of the town including rehabilitation/reconstruction of public friendly spaces and development of the new public areas along the mentioned route.

The project will be implemented on the land plot owned by Telavi Municipal Government. The total area of land allocated for project activities is 94 000 m2. There are two state-owned buildings the rehabilitation and reconstruction of which are to be carried out within the project: Telavi State Vazha Pshavela Drama Theater and Telavi Elene Akhvlediani Children's Art

School. The buildings are located on Erekle II Avenue, in central part of Telavi City, in well-developed urban environment (See Figure 1).

Figure 1



The following stakeholders were present at the meeting:

Locals: Zviad Elizbarashvili, Mainaz Kurbanovi, Gia Gomelauri, Vaja Kajrishvili, Guram Urchukhishvili, Mamuka Petriashvili, Davit Tsikaradze, Natia Bagauri, Nino Abjevi, Leila Tarkhnishvili, Goga Mtvarelishvili, Guram Kirvalidze, Kote Mirianashvili, Vakhtang Latsabidze, Liana Nijaradze, Zurab Zurabishvili, Luka mamukashvili, Levan Khizanishvili, Mamuka Javrishvili, Tsiuri Badurashvili, Marina Papunashvili, Egvite Barbakadze.

Gurjaani City Hall Representative: Davit Ksovelishvili

MDF Representatives:

Environmental Specialist- Niniko Isakadze

ADB Communication Consultant – Irakli Japaridze

Project Manager – Tornike Tabagua

Resettlement Consultant – David Arsenashvili

Communication Consultant Irakli Japaridze opened the meeting, reported in brief the objective of the meeting and then turned it over to the next speaker - Project Manager Tornike Tabagua. Project Manager familiarized the meeting attendees with the project, as well as with specifics of works to be carried out and reviewed in detail the assignment of Telavi rehabilitation. Then the

speech was delivered by Consultant Irakli Japaridze. Mr. Japaridze provided detailed information related to measures to be taken as per Due Diligence Report. Irakli Japaridze explained that the Due Diligence report considers provision of compliance with the safety standards as much as possible. Mr. Japaridze showed also the photos to the attendees, reflecting the access roads to the construction site, as well as how the construction machinery is to move in the course of construction. Irakli Japaridze clarified also how and in which form the grievances can be accepted and reviewed by Telavi City Hall and MDF.

Further, Niniko Isakadze, Environmental Specialist presented the IEE prepared for the specific SP and briefly updated the public on social and environmental screening procedures for the ADB funded projects and social and environmental requirements for the present SP. She also reviewed works planned under the SP, relative environmental and social impacts expected as a result of project implementation and those main measures, which are to be carried out in order to prevent or mitigate the expected adverse impacts on the environment. Niniko Isakadze emphasized that pursuant to the legislation in force, the SP works do not require any environmental permits or such other approvals by the Ministry of Environment and Agriculture of Georgia, therefore for ensuring environmental and social safeguards under the SP, and it will be implemented in accordance with the respective safeguards policy and the Operations Manual of the ADB.

She noted that the IEE document forms integral part of the contract made with the civil works contractor and that the contractor is responsible for performance of mitigation measures envisaged under the IEE and protection of social and natural environment. She also discussed the SP environmental monitoring, and parties responsible for associated reporting procedures.

Following introduction of the IEE document to the attendees, David Arsenashvili, Resettlement Consultant addressed the public and discussed in detail the project and its various components.

For better visual expression and comprehension, at the meeting the population was in online setting shared with design documentation and renders. Besides, Irakli Japaridze introduced the audience to the SDDR document elaborated under the present project.

Irakli Japaridze also clarified to the audience that there will be no limited access to the existing buildings in course of rehabilitation works. They were informed that there will be temporary footpaths and cable bridges arranged to provide unrestricted access for stakeholders.

Furthermore, detailed information was furnished concerning Grievance Redress Mechanism. They were given guidance that they can at any time contact the Consulting Company, which will be permanently present at the project site in course of construction works, or Telavi City Hall accommodating the Grievance Redress Committee; they were also notified that there has been a Grievance Redress Committee faultlessly and efficiently operating in the MDF for years, where they can at all times apply, if they are not satisfied with the decision of two previous instances. In addition, Irakli Japaridze explained to each beneficiary that availability of above-referenced mechanisms does not hinder them in their wish to directly appeal to the court. Beneficiaries were furnished with all detailed information and time limits relating to GRM management and operation. Besides, Irakli Japaridze shared his telephone number with each person interested in, in order to let them communicate with him at any moment for timely and effective solution of the raised issue. It should also be stated that the above-mentioned notifications posted in Telavi streets additionally include information on Grievance Redress Committee.

After the presentation, the audience was given a possibility to express their opinions and/or participate in Q&A session concerning presented issues, they posed the following question. Irakli Japaridze, Tornike Tabagua, David Arsenashvili and Niniko Isakadze responded to all the questions asked.

Question	Response
A rock is falling on Cholokashvili Street, therefore, are any measures envisaged unde project to stop it?	The fact has not been known before, thus we will get familiar with this problem and if any measure is necessary it shall be taken.
Would you mind to share Detail Design prepared for the project with us?	Detail Design has been already shared with the Telavi Local Municipality, where you can get familiar with it. However we can send it to you via email due its size.
Who prepared the Detail Design? Who is the author?	DD was prepared by "Karkasi" LTD
When is the project going to be launched?	The project will be started in the fourth quarter of 2021.
Old inactive reservoirs are located near Erekle II Square, therefore what is planned in this regard?	Project envisages demolition of the reservoir and landscaping its area
What activities will be implemented on the central street and square?	The project envisages rehabilitation of central square and street there, widening the pedestrian paths and change the direction of traffic movements. Additionally, Elene Akhvlediani's Art school and state theatre will be rehabilitated.

The population is satisfied with Telavi rehabilitation project. None of meeting participants, including representatives of businesses or households, have expressed any dissatisfaction with the project or design documentation.

The named project implementation will give new life to Telavi, which will manifest itself in lives of its inhabitants and businesses. Tourist flow will increase and bear additional benefits to small, medium and family-run businesses. There will be park and theater arranged for the local population, which will contribute to development of locals, and more especially of youth. An extra environment, enhancing socialization of locals will emerge.

Photos of the Meeting

