Project Number: 54014-001
Reporting period: Project effectiveness date to December 2025

# Georgia: L4379-GEO: Climate Smart Irrigation Sector Development Program

Kvemo Samgori Left Main Canal Irrigation System Modernization

Sagarejo Municipality, Kakheti Region, Georgia

January 2026

Prepared by the Ministry of Environmental protection and Agriculture of Georgia for the Asian Development Bank (ADB).

Disclaimer: Since project activities have not yet fully commenced and the PIU team has not been fully established—the report covers activities implemented during the period commencing from contract signing through December 2025.The proposed structure of this report is intended to support future monitoring activities and is aligned with the structure of the proposed reporting framework.

## ABBREVIATIONS

| | |
|---|---|
| **ADB** | Asian Development Bank |
| **MEPA** | Ministry of Environmental Protection and Agriculture of Georgia |
| **MoF** | Ministry of Finance |
| **CSISDP** | Climate Smart Irrigation Sector Development Program |
| **GA** | Georgian Amelioration |
| **EA** | Executing Agency |
| **IA** | Implementing Agency |
| **PIU** | Project Implementing Unit |
| **PIC** | Project Implementation Consultant |
| **CSC** | Construction Supervision Consultant |
| **NPM** | National Project Manager |
| **EM** | Environmental Manager |
| **CC** | Construction Company |
| **NACHP** | National Agency of Cultural Heritage Preservation of Georgia |
| **DED** | Detailed Engineering Design |
| **EARF** | Environmental Assessment and Review Framework |
| **EHS** | Environmental, Health and Safety |
| **EIA** | Environmental Impact Assessment |
| **EMP** | Environmental Management Plan |
| **OHSE** | Occupational Health,Safety and Environment |
| **IEE** | Initial Environmental Examination |
| **GRM** | Grievance Redress Mechanism |
| **CAR** | Corrective Action Report |
| **CAP** | Corrective Action Plan |
| **ACM** | Asbestos-Containing Material |
| **EDDR** | Environmental Due Diligence Report |
| **PPE** | Personal Protection Equipment |
| **SAEMR** | Semi- Annual Environmental Monitoring Review |
| **SPS** | Safeguard Policy Statement |
| **SSEMP** | Site-Specific Environmental Management Plan |

**NOTE (s):**

In this report, "$" refers to U.S. dollars unless otherwise stated.

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## 1. INTRODUCTION

1. This Semiannual report is prepared under the proposed Climate Smart Irrigation Sector Development Program (Program) that Asian Development Bank (ADB) financed in Georgia. The Program will support policy reforms and develop institutional capacity in water resources management and delivery of climate-smart irrigation services. The program is aligned with the following impact: agriculture production and food security improved (Irrigation Strategy).

2. Project Implementation Organizations include: The Ministry of Finance (MOF), as a designated representative of the Borrower (Government of Georgia), the Ministry of Environment Protection and Agriculture (MEPA)- Implementing Agency, Project Implementing Unit ( PIU) at MEPA, Georgian Ammelioration (GA), the Project Implementing Counsultants (PIC)-"DOLSAR Engeneering INC.CO". During the reporting period the project team was staffed with a certain number of personnel, and the PIC-to carry out the project implementation supervision services, was selected.

3. During the reporting period, several key safeguard activities were undertaken. The Initial Environmental Examination (IEE) was prepared and submitted to ADB for review and clearance. However, following subsequent changes in the project scope, the Updated IEE submitted by the PIC in September 2025 was not cleared for disclosure due to identified gaps requiring further revision. The document was formally returned for improvement, and revisions are being undertaken accordingly.

4. During the ADB mission field visit conducted on 10 December 2025, several legacy environmental issues were identified that require corrective action. These included: (i) improperly disposed asbestos-cement (AC) pipe waste from old irrigation infrastructure observed exposed on the ground; (ii) inadequate decommissioning of a former contractor camp site, with remaining construction debris such as shipping containers, rebar, paint containers, and concrete blocks; and (iii) scattered construction waste, including plastics, in adjacent agricultural areas.

5.These findings will be comprehensively documented in an Environmental Due Diligence Report (EDDR), accompanied by a Corrective Action Plan (CAP), to be finalized by March 2026. The EDDR and CAP will serve as key instruments to address the identified legacy issues and will inform and support the formal project scope change process.5. The Executing Agencies (EAs) are the Ministry of Finance for Policy component (Output 1) and the Ministry of Environment Protection and Agriculture (MEPA) for Investment component (Output 2 and 3). Existing Project Implementing Agency (PIU) under the MEPA is the implementing agency for outputs 2 and 3 and overall responsible resettlement tasks.

6. The project preparationof the irrigation scheme is planned through works contract. Project includesrehabilitation of irrigation distribution networks (defined as Areas 1-4), and main canal.At this stage, there is design available for the part of the Main Canal associated with the Area 1 (G-23 to G-33), and concept design for the Area 1 distribution network.
Package 1 (Main Canal Ch 313+42 to Ch 397+00), the canal alignment, water flow, and structural elements will remain unchanged. Therefore, the proposed works constitute rehabilitation of the existing canal rather than reconstruction.
Accordingly, this section does not fall within the regulatory scope of the Law of Georgia "Environmental Assessment Code" (2017, as amended June 2025). As such, neither an environmental screening decision nor an Environmental Impact Assessment (EIA) procedure is required under national legislation.
Consultations conducted during project preparation confirmed that no design modifications were introduced for the Package 1 main canal section. However, if future changes extend beyond rehabilitation (e.g., changes in canal alignment or capacity), the need for environmental screening will be reassessed.

If in future installations of facilities listed under Annex II of the Environmental Assessment Code of Georgia will be required, a screening decision from the National Environmental Agency (NEA) will be required.

### 1.1 Preamble

7. During the reporting period (15 December 2023–31 December 2025- loan effectiveness), no physical construction or rehabilitation works were initiated under the Climate-Smart Irrigation Sector Development Program, due to: (i) prolonged selection of the PIU manager, that was appointed in November 2024 after several rounds of re-announcements of the selection. However, in March 2025, due to the change in management of MEPA, he moved to another donor funded project under MEPA, based on mutual agreement between the parties. After another round of re-announcement and discussions between ADB and MEPA, new project manager has been appointed in November 2025; (ii) Long and delayed selection of the Project Implementation Consultant (design and supervision company) that was completed in April 2025; (iii) delayed selection of key staff of PIU (Chief Engineer, Procurement Specialist, Financial Officer) that were selected and contracted in November 2024 and April 2025, and Environmental Specialist that will be contracted in January 2026.

8. As no civil works were undertaken, no site-based environmental monitoring, health and safety inspections, or construction-related environmental impacts occurred during the reporting period. All environmental safeguard requirements remain applicable and will be implemented once physical works commence.

9. Climate change is intensifying pressures on water resources and agricultural systems, increasing the risks of water scarcity, production losses, and livelihood insecurity. Irrigation remains essential to agricultural productivity and food security, yet many existing systems are inefficient, vulnerable to climate variability, and environmentally unsustainable.

10. Climate-smart irrigation provides a strategic approach to improving water-use efficiency, strengthening climate resilience, and supporting sustainable agricultural growth. By integrating modern technologies, improved management practices, and strengthened institutional frameworks, climate-smart irrigation can enhance productivity while reducing climate and environmental risks.

11. The Climate-Smart Irrigation Sector Development Program is established to guide coordinated investments and actions that promote efficient, resilient, and equitable irrigation development. The Program supports national climate and development objectives by improving water governance, increasing agricultural resilience, and contributing to long-term food security and sustainable economic growth.

### 1.2 Headline Information

| Loan # | Loan Ammount | Project Approval & Effectiveness Dates | Project Category | Expected Completion Date | Consultant | Contractor | Current physical progress (%) |
|---|---|---|---|---|---|---|---|
| L4379-GEO | ($48M) | Nov-2023-Dec, 2023 | **B** | 30 April, 2030 | Dolsar. Engineering Inc.Co. | To be determined | 4% up to December, 2025. The civil works component has not yet commenced. |

12. The Kvemo Samgori Left Main Canal has a total length of 48,850 meters, of which 31,342 meters have been rehabilitated. Constructed between 1961 and the early 1970s, the

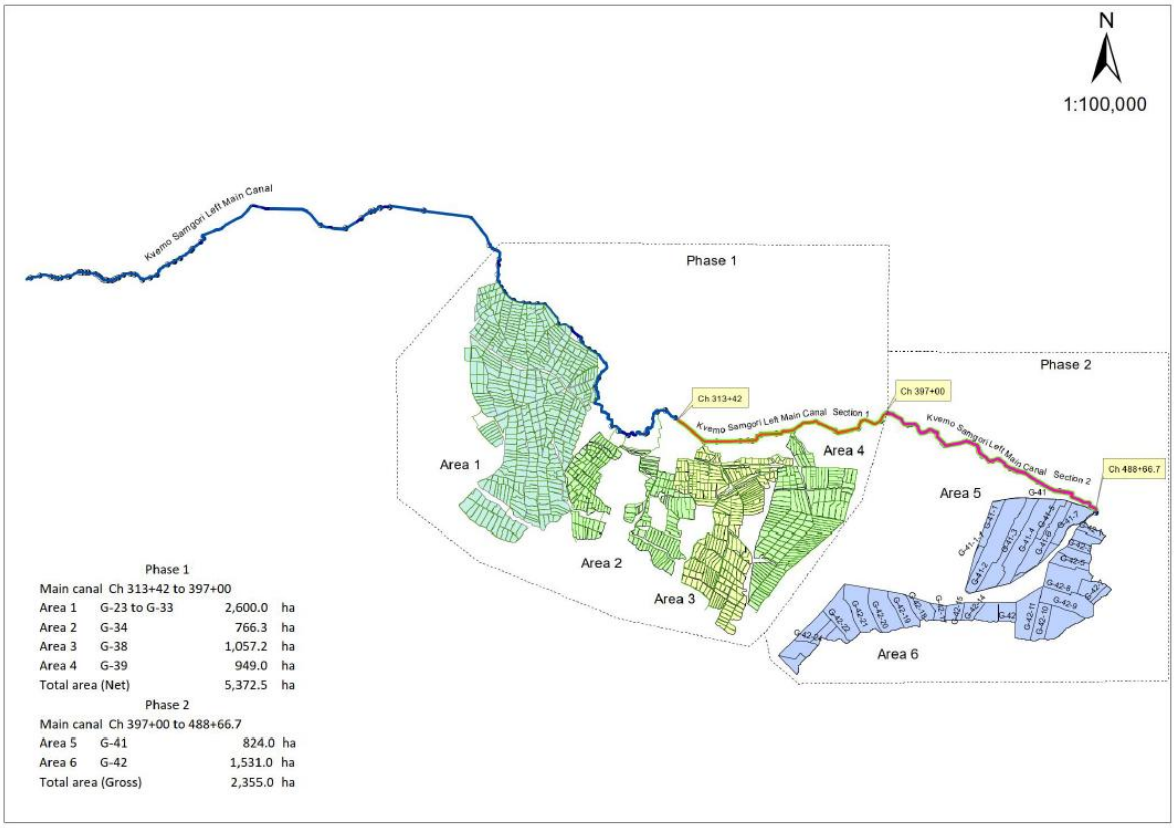
canal has a capacity ranging from 3 to 21 m³/s and irrigates approximately 17,450 hectares. It is an open concrete canal comprising trapezoidal and rectangular sections, tunnels, spillways, inverted siphons, distributaries, bridges, super passages, and pipes. After more than 50 years of operation with only minor maintenance, the canal and its associated structures are in poor condition.

13. Widespread deterioration includes collapsed and eroded concrete lining, sediment accumulation, damaged slabs, eroded transition sections, malfunctioning or missing mechanical equipment, and structural damage in tunnels, bridges, and super passages. Partial tunnel inspections revealed serious defects requiring full rehabilitation, while vegetation overgrowth and sedimentation further constrain hydraulic performance.

14. Under this project, modernization works will be carried out along an approximately 8.36 km section of the canal (Ch 313+42 to Ch 397+00) following the existing alignment as well as other sections of the main canal. The works include clearing vegetation and sediments; rehabilitating canal sections using shotcrete, cast-in-situ concrete, and replacement of damaged reinforced concrete slabs; and restoring galleries, tunnels, bridges, super passages, spillways, and inverted siphons.

15. Tunnel rehabilitation will involve cleaning, drainage, ventilation, structural strengthening, and detailed condition surveys during construction. All works will be confined within the established 4-meter right-of-way, where access roads already exist, and impacts will be managed in accordance with the project requirements. Figure 1: The Kvemo Samgori Left Main Canal Irrigation Scheme.

Figure 1: The Kvemo Samgori Areas to be Modernized



## 2. PROJECT DESCRIPTION AND CURRENT ACTIVITIES

### 2.1 Project Description

16. Agriculture remains a critical sector for Georgia's economy and rural livelihoods; however, its productivity is constrained by aging irrigation infrastructure, inefficient water management, and increasing vulnerability to climate change. In Eastern Georgia in particular, irrigation systems suffer from physical deterioration, limited pressurization, weak governance arrangements, and insufficient financial sustainability. Climate variability, water scarcity, and land degradation further exacerbate risks to food security and farmer incomes.

17. To address these challenges, the Asian Development Bank (ADB) is supporting the **Climate Smart Irrigation Sector Development Program (CSISDP)**, which adopts a sector-wide approach that integrates policy and institutional reforms with targeted infrastructure investments and the promotion of climate-smart agricultural practices. The program is aligned with Georgia's agricultural development priorities and ADB's strategy for climate resilience, sustainable resource management, and rural development.

18. The CSISDP combines policy-based lending with investment financing and is structured around three mutually reinforcing outputs:

1. Enhanced Institutional, Governance, and Financial Management Framework This component supports reforms to improve the legal, institutional, governance, and financial frameworks governing irrigation and water resources management. Key areas include strengthening sector oversight, improving irrigation service delivery and accountability, enhancing financial sustainability, and improving management practices to ensure long-term operation and maintenance of irrigation assets.
2. Modernization of Irrigation Infrastructure. The program finances the modernization of priority irrigation schemes in Eastern Georgia, with a focus on the Kvemo Samgori Left Main Canal Irrigation Scheme. Investments include rehabilitation and repair of a last 17.5 km part of main canals, reduction of water losses, and the introduction of pressurized on-farm irrigation networks. These measures aim to modernize the existing system, increase water-use efficiency, expand reliable irrigation coverage, and improve agricultural productivity.
3. Demonstration and Adoption of Climate-Smart Agricultural Systems. This component promotes innovative, climate-smart irrigation and agricultural production technologies through pilot and demonstration activities. It includes farmer training and capacity building, support for the adoption of efficient irrigation methods, and complementary measures such as windbreak establishment to reduce soil erosion and protect crops. The component also addresses barriers to adoption, including access to knowledge, finance, and modern farming practices.
4. Institutional Framework-The program is implemented through a combination of national institutions. The Ministry of Finance serves as the executing agency for the policy-based reform component, while the Ministry of Environmental Protection and Agriculture (MEPA) is responsible for implementing the investment components through a dedicated Project Implementation Unit. Georgian Amelioration participates in technical review and is expected to assume operation and maintenance responsibilities for rehabilitated irrigation infrastructure upon completion.

### 2.2 Project Contracts and Management

19.Asian Development Bank (ADB) is the funding agency and the Ministry of Environmental Protection and Agriculture of Georgia (MEPA) is the Implementing Agency (IA) of the Project. Project Implementation Consultants Supervision Contract (Contract No: CSISDP CS-01 & Loan No: 4379-GEO) was signed on 24 February 2025 between Ministry of Environmental Protection and Agriculture of Georgia (MEPA) and DOLSAR Engineering Inc. Co.

20.The primary objective of DOLSAR -the Project Implementation Consultant (PIC) is to support MEPA/PIU/GA in the effective design, management, and execution of the project in accordance with the overall requirements approved and agreed between ADB and the Government of Georgia.

The PIC will provide comprehensive assistance to the PIU and GA throughout project implementation. This includes preparation of detailed designs, development of procurement documentation, supervision of construction works, management of environmental safeguards, as well as monitoring and reporting activities.

### 2.3 Ministry of Environmental Protection and Agriculture (MEPA)

21. MEPA is the **primary implementing agency** responsible for executing the investment and technical components of the CSISDP. It is designated by the Government of Georgia to lead implementation and ensure adherence to both national standards and ADB requirements.It oversees overall program execution, coordination with stakeholders, compliance with ADB loan covenants, and reporting on program progress.

22. Within the Ministry of Environmental Protection and Agriculture of Georgia (MEPA**), a Project Implementation Unit (PIU)** has been established to manage the overall implementation of the program. The PIU is staffed with qualified professionals responsible for day-to-day project management, including procurement, contract administration, technical supervision of civil works, management of consulting services, environmental safeguard compliance, financial management and reporting, and coordination with the Asian Development Bank (ADB) and other relevant stakeholders. The PIU oversees the implementation of investment activities, including irrigation infrastructure modernization and the introduction of climate-smart technologies, ensuring effective delivery in accordance with project objectives and applicable regulatory and safeguard requirements.

### 2.4 National Project Manager (NPM)

23. The PIU is led by a **National Project Manager**, who is responsible for overall coordination of implementation, including planning, monitoring, and supervision of civil works and consulting services. The NPM acts as the principal liaison between MEPA, ADB, contractors, consultants, and other project stakeholders.

24. Duties include ensuring compliance with ADB safeguard policies, timely submission of reports, coordination of stakeholder engagement, and risk management. Within reporting period national project manager is selected and acts as the lead for project implementation. PIU is in the process of selecting staff members for the project.

### 2.5 Environmental Specialist (ES)

25. An **Environmental Specialist** will be engaged within the PIU to oversee the implementation of environmental safeguard requirements and ensure compliance with both ADB policies and the national environmental regulatory framework.The Environmental Specialist will be responsible for supervising the implementation of the Environmental Management Plan (EMP), monitoring contractors' environmental performance, conducting site inspections and ensuring that mitigation measures are properly applied.

### 2.6 Georgian Amelioration (GA)

26. **Georgian Amelioration** (State-Owned Entity) operating under the supervision of the Ministry of Environmental Protection and Agriculture of Georgia (MEPA). GA is responsible for the management, operation, rehabilitation, and development of irrigation and drainage infrastructure throughout Georgia. The company functions within the policy framework established by MEPA and implements state programs related to land amelioration and water resource management. GA's institutional structure includes a central management office and regional service units, responsible for the day-to-day operation and maintenance of irrigation schemes. The agency participates in technical reviews of design documentation and supports system operation and maintenance upon completion of investment works, aligning with reforms to improve efficiency and accountability in irrigation service delivery.

### 2.7 Ministry of Finance of Georgia (MoF)

27. The **executing agency for the policy-based reform component** and fiscal aspects of the program. MoF coordinates the fulfillment of policy actions linked to the financing agreement, including governance, water pricing frameworks, and institutional reforms that underpin sector sustainability. MoF is tasked with oversight of loan compliance on the financial management side and ensures integration with national budgeting and public financial management systems.

## 3. Description of any Changes to Project Design

28. Some construction activities in Areas 5 and 6 were implemented by Georgian Amelioration (GA) prior to ADB financing. During the April 2025 technical workshop, the ADB was informed that the modernization of the Area 5 distribution canals (approximately 680 ha) had already been completed, and about half of Area 6 (approximately 1,263 ha) had also been completed using government funds—without prior notification to ADB. Despite government financing, Areas 5 and 6 remain under the project scope; therefore, ADB safeguard requirements continue to apply.
During the December 2025 ADB field visit, significant environmental legacy issues were identified.
Asbestos-Containing Materials (ACM): Fragments of broken and deteriorated asbestos-cement (AC) pipes from the former irrigation system were identified along the canal alignment, left exposed on the ground surface. Visible cracking and material degradation indicate potential fiber release, posing serious environmental and occupational health risks. This issue requires urgent assessment and inclusion in the Environmental Due Diligence Report (EDDR), with corresponding mitigation measures reflected in the Corrective Action Plan (CAP). Residual Construction Waste at Former Contractor Camp established during the government-financed works has not been properly dismantled or cleared. Observations at the site included: Shipping containers (including units branded “China Shipping”) remaining on site without evidence of scheduled removal; Construction-related debris such as empty paint containers, rebars and broken concrete blocks; Scrap metal, mechanical components, and discarded tires; Plastic waste (including nylon/fishing line) scattered in adjacent agricultural areas; Abandoned timber formwork with protruding nails and other miscellaneous construction materials.
The former camp area has not been reinstated to its pre-construction condition. Although partial natural vegetation regrowth is occurring, no formal site restoration measures have been implemented in accordance with the Georgian Waste Management Code (2015) or established good construction practice. Proper environmental remediation and site closure procedures remain outstanding.

To address this and assess the works implemented at Areas 5 and 6, ADB supported the PIU in preparing TOR for Environmental Due Diligence Report (DDR). Since this work was not included in the original PIC scope, a contract amendment will be required and submitted to ADB before 30 January 2026 for no- objection. The DDRs will be prepared within three months of task assignment to the PIC. Once the due diligence is completed and any corrective actions implemented, ADB will advise MEPA on further steps. Subsequently, Areas 5 and 6 will be excluded from the project scope and potential project savings identified.

29. Due diligence will assess potential land acquisition impacts, compensation and livelihood restoration measures, stakeholder consultation processes, and grievance redress mechanisms under the LARP, as well as environmental impacts mitigation measures, environmental management plans, and monitoring arrangements under the IEE. The findings will be used to identify gaps, update safeguard instruments where necessary, and strengthen implementation capacity within the PIU and relevant agencies, thereby ensuring that environmental risks are effectively managed and that project activities are implemented in an environmentally sustainable manner.The Cpnsultant will prepare the Environmental Due Diligence Report (EDDR) and Corrective Action Plan (CAP) for Areas 5 and 6. The Consultant shall perform these services to evaluate the environmental impacts and compliance of the rehabilitation works executed by Georgian Amelioration, in strict accordance with the specific objectives, scope, methodology, and deliverables set forth in the "Terms of Reference.

### 3.1 Description of Environmental Safeguard Activities

30. The Initial Environmental Examination (IEE) activities for main canal section 8.4km are undertaken to identify, assess, and mitigate potential environmental impacts associated with climate-smart canal development. Environmental screening was carried out and IEE document was developed , followed by the establishment of baseline conditions covering soil, water quality, vegetation, local ecology, and the surrounding community environment. Baseline environmental conditions were established primarily through design-stage assessments; site-specific verification will be conducted prior to construction commencement as part of SSEMP preparation.

### 3.2 Initial Environmental Examination

31. The IEE submitted by Dolsar on 16 September 2025 has not been cleared by ADB for disclosure and remains under revision and update.Tthe document contains fundamental gaps that require substantive revision to ensure full compliance with the ADB Safeguard Policy Statement (2009). ADB has provided detailed review comments to the PIC for incorporation. Clearance of the Updated IEE is a critical compliance requirement, and bidding activities cannot proceed until the revised document satisfactorily addresses ADB's comments and receives formal no objection for disclosure.

32.Potential construction-phase impacts, including soil erosion, sedimentation, dust and noise emissions, temporary disruption of irrigation flows, vegetation clearance, waste generation, and occupational health and safety risks, were assessed, along with operational-phase impacts related to improved water management. The document was updated and submitted to ADB for review and comments.

### 3.3 Stakeholder Consultation and Information Disclosure

33. At an early stage of project preparation, a comprehensive environmental screening process was undertaken to identify and assess potential direct, indirect, cumulative, and induced impacts and risks related to physical, biological, socioeconomic, and physical cultural resources. The assessment aimed to determine the significance, scale, and extent of anticipated impacts through consultations with relevant stakeholders, including affected communities and concerned non-governmental organizations. This process included field visits to the proposed project sites and consultations with key stakeholders to ensure that environmental considerations were systematically integrated into project planning and design. Stakeholder consultations were conducted at different stages of project preparation, including institutional consultations with local authorities (2022–2023), field-based safeguard consultations and public consultation meetings with local communities (April 2025). (Annex I & Annex II). These consultations aimed to inform stakeholders about the project scope and objectives, collect feedback from affected communities, identify potential environmental issues associated with the rehabilitation of the Kvemo Samgori Left Main Canal.

### Stakeholder Consultation Summary Matrix

| Stakeholder / Organization | Key Issue or Concern Raised | Response / Explanation Provided | Resulting Action / Design Consideration |
|---|---|---|---|
| Sagarejo Municipality representatives (Mayor, Deputy Mayor, Infrastructure and Spatial Planning Department) | Expectations that the project would support regional agricultural development and create local employment opportunities | Project objectives, scope of canal rehabilitation, and expected socio-economic benefits were explained during initial consultations with local authorities | No design modification. Institutional consultations confirmed strong local government support for the project |
| Local farmers and residents along the canal corridor | Expectations that improved irrigation water supply would increase agricultural productivity and improve local | Project scope, implementation schedule, and environmental safeguards were explained during field consultations and | No design change. Feedback confirmed the importance of irrigation rehabilitation for local agriculture |

| | | | |
|---|---|---|---|
| | livelihoods | information disclosure activities | |
| Local farmers and community members (April 2025 field consultations) | Sediment accumulation, damaged canal gates, and uneven water distribution affecting irrigation reliability | Field visits and community consultations were conducted to assess technical and socio-economic conditions along the canal | Findings supported prioritization of canal rehabilitation measures and informed safeguard planning |
| Women engaged in agricultural production and small-scale market activities | Limited participation in irrigation institutions and constraints related to market access and mobility | Consultations documented women's role in agricultural processing and local market activity and highlighted gender-related livelihood dynamics | No design change; findings informed gender considerations and future stakeholder engagement under the safeguard framework |

### 3.4 Grievance Redress Mechanism

34. During the reporting period, public consultations were conducted as part of the preparation of the Initial Environmental Examination (IEE) and Land Acquisition and Resettlement Plan (LARP). In line with the requirements of ADB Safeguard Policy Statement (SPS) Safeguard Requirement 1 (SR1), Paragraph 20, and as highlighted in the ADB Environmental Safeguard Mission Observation Report (December 2025), meaningful re-consultation is required following the significant project scope changes, including the removal of Areas 5 and 6 and the restructuring of contract packages. Considering that the loan has been effective for two years a basic GRM structure is in place. In line with the EARF provisions, the GRM will be fully functional prior to the start of construction to capture and address stakeholder feedback and concerns in a timely and transparent manner.

### 3.5 Occupational Health and Safety

35. Occupational health and safety measures will be developed in accordance with national labor legislation, ADB SPS (2009), and the ADB Environmental, Health and Safety Guidelines, and will be detailed in the contractor's SSEMP.

### 3.6 Environmental Monitoring and Compliance Assessment

36.

During the reporting period, no construction or physical works were undertaken under the Climate-Smart Irrigation Sector Development Project, and therefore construction-phase environmental monitoring was not applicable. However, in accordance with ADB Safeguard Policy Statement (2009), Safeguard Requirement 1, Paragraph 8, the status of baseline environmental data has been reviewed and documented.

Baseline environmental information was originally collected during the preparation of the Initial Environmental Examination (IEE) and includes data on physical, biological, and environmental conditions within the project corridor. Duuring the ADB mission in December 2025, a time gap of approximately two years has occurred since the initial baseline data collection, and therefore the need for verification and potential updating of baseline information prior to the commencement of civil works was identified.

To address this issue, additional field verification surveys were conducted immediatelly in the end of 2025 to assess whether any significant environmental changes had occurred in the project area. The verification activities included assessment of habitats and vegetation conditions, identification of fauna habitats, background noise measurements, waste management observations including agricultural activities.

Based on these verification activities, no significant changes in baseline environmental conditions were identified, and the results of the 2023 baseline surveys remain generally valid for the project area. To ensure full compliance with ADB SPS requirements, comprehensive baseline surveys, including instrumental measurements and laboratory analyses, will be conducted prior to the commencement of

civil works.
These additional surveys are currently planned for the summer of 2026, and their results will be incorporated into the future environmental semi-annual report.

### 3.7 Summary of Monitoring Conducted

37. Additional field monitoring will be conducted in 2026 to verify the previous surveys and determine possible environmental changes like- current state of habitats and vegetation in the project corridor, measurements of background noise levels, current state of waste, socio-economic conditions, including agricultural activities. Environmental monitoring will commence again once construction activities begin, with monitoring parameters, frequency, and responsibilities defined in the approved EMP and SSEMPs.

### 3.8 Compliance with EMP / IEE Requirements -

### 3.9 Environmental Parameters (air, noise, waste, soil, water – even if N/A)

38. The baseline environmental data on air quality, noise levels, water parameters, and waste management were obtained in 2023.. Additional field surveys were conducted during 2025 to verify and update the findings of the earlier surveys. The activities included: verification of the current condition of habitats and vegetation within the project corridor, identification of important fauna habitats, background noise measurements, assessment of waste management conditions, including agricultural activities.
Based on the verification results, it was determined that environmental baseline conditions remained unchanged during 2023–202, and no critical environmental receptors were identified. Therefore, the results of the 2023 field survey remain valid.
As for water tesing-sampling was limited to the analysis of Total Suspended Solids (TSS) and was undertaken for operational monitoring purposes only. The testing did not include broader environmental parameters such as pesticides, nutrients, or other potential pollutants.
Laboratory results related to water quality monitoring in the main canal are available and can be provided as supporting documentation upon request. (Annex 4)
Comprehensive field surveys, instrumental measurements, and laboratory analyses are planned for the Package 2, Package 3, and Package 4 corridors during the summer of 2026.

### 3.10 Non-Compliance and Corrective Actions (CARs)

39. At this stage, the active rehabilitation and construction activities have not yet commenced. Consequently, no instances of non-compliance have been identified, and no Corrective Action Requests (CARs) have been issued. This section will be updated accordingly once physical works begin and environmental monitoring during implementation is undertaken.

## 4. Environmental Training and Capacity Building

### 4.1Training needs assessment

40. A preliminary assessment will indicate the need for environmental safeguards training for contractors, particularly on EMP implementation, GRM operation, and OHS compliance. These trainings will be planned for the next reporting period.

### 4.2 Trainings conducted (dates, topics, participants)

No trainings were conducted during the reporting period. Training needs and schedules are currently under consideration and will be implemented in subsequent phases of the project.

### 4.3 Planned future trainings

41.During the reporting period, the project remained at a pre-implementation stage, with no commencement of civil works, site mobilization, or physical activities. Accordingly, several environmental safeguard components—including site-specific environmental management planning (SSEMPs), environmental monitoring, stakeholder consultations, grievance redress mechanism operation, occupational health and safety measures, environmental training, cultural heritage management, and compliance inspections—were not applicable during this period.
The absence of these activities reflects the current project status and does not constitute non-compliance. During the reporting period, safeguards efforts focused on preparatory and design-stage activities. All outstanding environmental safeguard measures will be implemented prior to and during construction, in accordance with the approved IEE/EMP, national legislation, and ADB SPS (2009) requirements.

### 4.4 Functioning of SSEMP

**SSEMP preparation status**

42. As of the reporting period, physical rehabilitation and construction activities have not yet commenced. Consequently, the Site-Specific Environmental Management Plan (SSEMP) has not been prepared.

In accordance with the requirements of the ADB Safeguard Policy Statement (SPS, 2009), the Contractor will be required to prepare a Site-Specific Environmental Management Plan (SSEMP) prior to the commencement of civil works. The SSEMP shall be prepared based on the updated and approved Initial Environmental Examination (IEE) and the corresponding Environmental Management Plan (EMP). The Contractor will submit the SSEMP to the Construction Supervision Consultant (CSC) for review, after which it will be forwarded to the Project Implementation Unit (PIU) for final clearance and approval. The SSEMP must be approved by the PIU prior to the Contractor's mobilization and the commencement of construction activities.

### 4.5 Approval and disclosure status

43.The Updated IEE submitted in September 2025 has not yet been cleared for disclosure. As noted in the ADB Environmental Safeguard Mission Observation Report (December 2025), the document contains substantive gaps requiring revision.Therefore, IEE is undergoing the updating/correcting process to avoid any delay in its finalization that may affect the planned procurement schedule, including the targeted bidding process in 2026.

### 4.6 Monitoring and enforcement arrangements

44. As construction has not yet begun, environmental monitoring during implementation has not commenced. Current safeguard oversight focuses on documentation review, baseline validation, due diligence activities, and compliance planning.

Monitoring and enforcement mechanisms will become operational upon contractor mobilization and approval of the SSEMP. Environmental supervision will then be undertaken in accordance with the EMP, and ADB reporting requirements.

### 4.7 Identified gaps and corrective actions

45. Although no construction-related non-compliances have been recorded at this stage, several safeguard-related gaps and forward-looking risks have been identified:

(i) <u>IEE Clearance Delay</u>
Delay in revising and resubmitting the Updated IEE may affect the targeted bidding timeline. Corrective action focuses on immediate revision and resubmition of the updated IEE addressing all ADB comments.

(ii) <u>Baseline Data Gap (2023–2025)</u>

Environmental baseline data were collected in 2023. A two-year time gap requires confirmation of representativeness prior to construction. In spite to process corrective action, validation monitoring should be conducted prior to works commencement.

(iii) <u>Asbestos-Containing Materials (ACM) – Areas 5 & 6 (High Impact)</u>
Field findings indicate significant environmental and occupational risk associated

with ACM. Corrective Action will be a preparation of an Environmental Due Diligence Report (EDDR) for Areas 5 & 6, including a Corrective Action Plan (CAP).

(iv) Tunnel Confined Space Risks (High Impact)
Future construction involving tunnel works presents significant confined-space occupational and environmental safety risks. Detailed confined-space management procedures will be Integrated into design documentation and future SSEMP requirements.

(v) Potential Scope Expansion (e.g., canal capacity upgrade)
Any expansion of project scope may trigger additional safeguard requirements or re-categorization under SPS. Safeguard screening should be conducted prior to approval of any scope modification.

### 4.8 Good Practices and Lessons Learned

**Institutional good practices**

46. Early environmental screening conducted during project preparation, site survey and environmental audit undertaken prior to commencement of works, stakeholder engagement conducted during safeguard preparation phase, integration of environmental considerations into procurement planning.

### 4.9 Safeguard management improvements

**Lessons learned for next reporting period**

47.Safeguard documentation must/will be proactively aligned with procurement timelines to avoid delays. Updated IEE (considering ADB comments) is supposed to be submitted in the beginning of 2026.
Baseline data validity should be reassessed when project implementation is delayed. Legacy environmental risks (e.g., ACM) require early and detailed due diligence for Areas 5&6 including CAP to prevent implementation-stage disruption. High-risk construction components (e.g. tunnel works) require early integration of occupational and environmental safety planning. GRM establishment finalised and ready for submission; SAEMR No. 2 submission deadline will be the end of June, 2026

### 4.10 Conclusions and Recommendations

Overall environmental compliance conclusion

Key risks going forward

Action-oriented recommendations

**Priorities for next reporting period**

48. Achieve IEE clearance and disclosure, finalize EDDR and agree on CAP implementation schedule,GRM establishment and functionality, completion of an environmental integration within procurement documents, preparation of SSEMP upon contractor appointment.

## 5. Cultural Heritage Aspects

**Current Activities**

49. Location of all Cultural Heritage Sites is a long distance from the Package 1 project corridor. There is no information about the existence of historical or cultural heritage monuments in the corridor of Package 1. There is no information about the discovery of new archaeological monuments within the project area in the recent period (including 2023-2025). Therefore, the historical-archaeological research conducted in the past is valid.

## 6. ENVIRONMENTAL TRAININGS

50. All outstanding environmental safeguard trainings will be implemented prior to and during construction, in accordance with the national legislation, and ADB SPS (2009) requirements.

## 7. FUNCTIONING OF THE SSEMP

Site- Specific Environmental Management Plan Review

51. The Site-Specific Environmental Management Plan (SSEMP) has not been prepared yet. In accordance with the requirements of the ADB SPS (2009), the SSEMP will be prepared by the Contractor prior to mobilization.

## 8. GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT

Good Practice

## 9.SUMMARY AND RECOMMENDATIONS

52. The project remains in the pre-construction phase. No physical works have commenced and no construction-related environmental non-compliances have been recorded.
However, several critical safeguard documentation and risk management actions remain outstanding. Timely completion of these actions is necessary to ensure full compliance with ADB safeguard requirements prior to construction.

## 10. Annexes

Annex 1: Public Consultations 2022-2023

### PUBLIC CONSULTATION AND INFORMATION DISCLOSURE

**Initial Consultations, 2022-2023**

In June 2022, the Consultant's social group met with the representatives of both, non-governmental and governmental local self-government authorities. The goal of the meeting was to communicate the details, goals and objectives of the planned project to the representatives of the local authorities and learn about their views and expectations in respect of the project.

Meetings were held with Mr Paata Asratashvili, the Mayor of the city of Sagarejo, Mr Alex Gilashvili, the First Mayor deputy, Mr Rostom Bakradze, the Head of the Department of City Hall Infrastructure and Spatial Planning and Mr Nikoloz Digmelashvili

**Figure.8.1: Meetings at Sagarejo Municipality and Georgian Amelioration Sagaredjo Office**

At the meetings, the representatives of the local self-governing bodies showed full support for the project. In their opinion, this project will promote the development of the region, will support agriculture, which is one of the leading branches in the region and will help increase the budget consequently. All these benefits will have a positive impact on the youth of the region and will reduce migration, which is one of the major problems of Sagerejo and Gurjaani municipalities today.

## Annex 2: **Stakeholder Consultation Timeline**

**Stakeholder Consultation Timeline**

Stakeholder engagement activities were carried out at different stages of project preparation and safeguard assessment. These consultations included institutional coordination meetings, field-based consultations with local communities, and formal public consultation meetings. The main consultation milestones are summarized below.

| Date / Period | Consultation Type | Participants | Purpose |
|---|---|---|---|
| 2022–2023 | Institutional consultations | Sagarejo Municipality representatives (Mayor, Deputy Mayor, Infrastructure and Spatial Planning Department) | To introduce the project objectives, discuss regional development expectations, and obtain initial feedback from local authorities |
| 18 March 2025 | Project kickoff meeting | PIU, PIC engineering team | To initiate project implementation activities and coordinate design and safeguard tasks |
| 19–20 March 2025 | Technical site visit and coordination meeting | PIC engineering team and Georgian Amelioration representative | To assess the current condition of the irrigation infrastructure and identify technical rehabilitation priorities |
| April 2025 | Field-based social safeguard consultations | Local farmers and community members | To assess socio-economic conditions, irrigation challenges, and potential social safeguard issues |

## Annex 3 Fiel-based Safeguards Activities in 2025

**Field-Based Safeguards Activities**

As part of the safeguards implementation phase, safeguard specialists conducted multiple field visits between 6 and 16 April 2025, covering the full length of the Kvemo Samgori Left Main Canal. Special attention was paid to the first 8.1 km stretch due to its construction readiness. These field-based activities aimed to document local conditions, assess irrigation-related issues, and understand gender-differentiated impacts.

Community-level consultations and transect walks revealed several technical and environmental concerns relevant to safeguard planning. The table below summarizes key observations and associated environmental and social impacts:

| Location / Context | Issue or Feature Identified | Associated Social Impact |
|---|---|---|
| Near irrigation control sites | Sediment accumulation and valve damage | Reduced or uneven water access for farmers |
| Canal infrastructure points | Partially functioning or damaged canal gates | Equity concerns in irrigation delivery: repair needs |
| Informal market areas | Women-led small-scale economic activity | Evidence of livelihood diversification and resilience |
| Community gathering places | Joint meetings with male and female farmers | Discussions on water pressure, access scheduling, and GRM |

- These findings supported the prioritization of specific safeguard interventions, including inclusive stakeholder consultations, gender-responsive water management considerations, and planned infrastructure rehabilitation efforts.

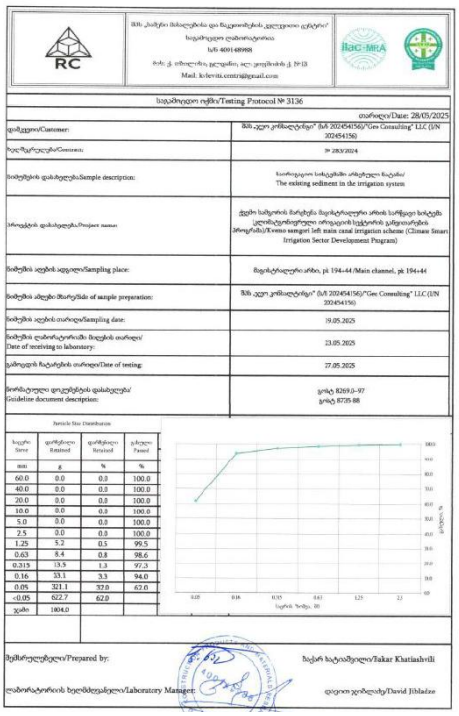
**Gender Participation and Livelihood Integration**

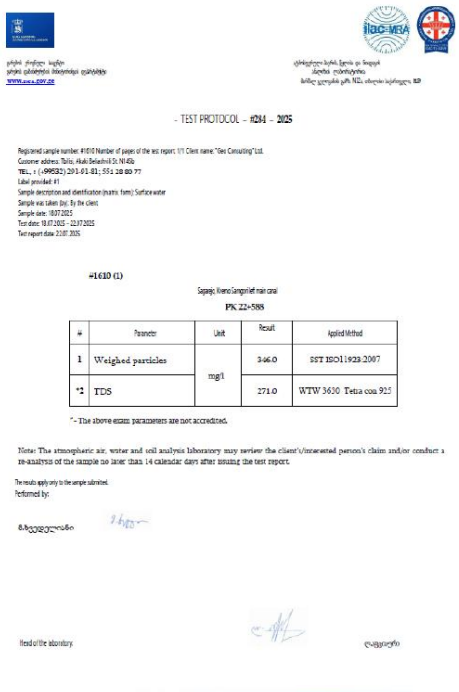
Site visits revealed that women are active in agricultural processing (cheese, wine, oil) and market selling. Engagement in Water User Organizations (WUOs) remains limited. Upcoming GAP implementation will address participation and data disaggregation.

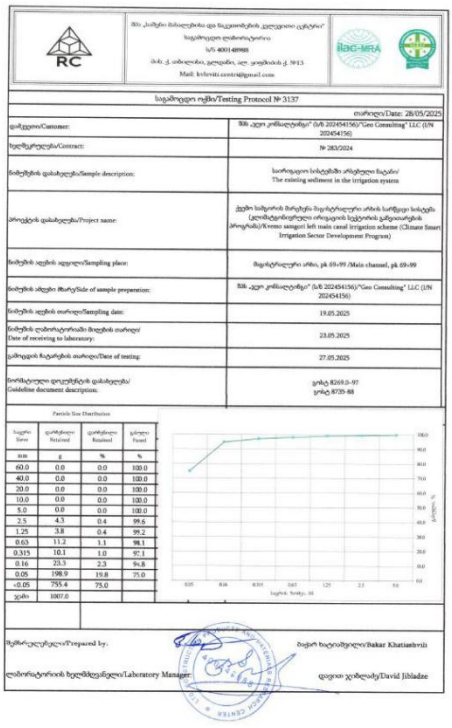
**5. Field Photo Documentation**

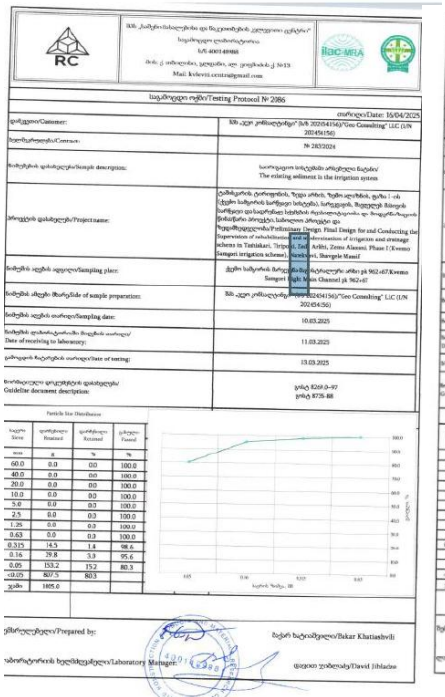
Selected photos from field missions, institutional meetings, and stakeholder consultations

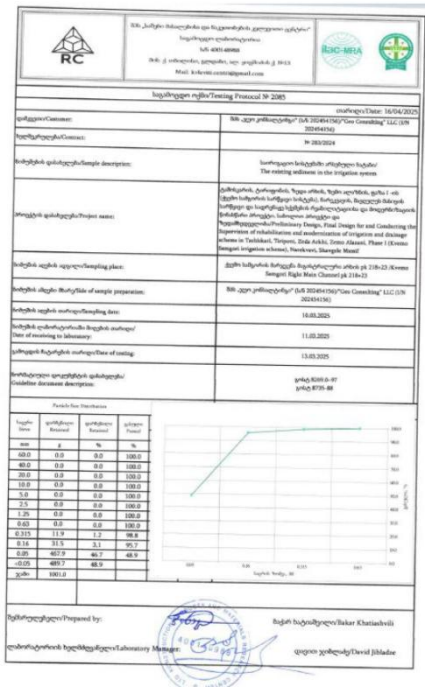
# Annex 4. Water Testing Protocols -2025











Annex 6: Photographic documentation

Water Sampling



## Field Visits