ADB

Concept Paper

Project Number: 54014-001
December 2020

Proposed Loans and Technical Assistance Grant Georgia: Water Resources Sector Development Program

Asian Development Bank

CURRENCY EQUIVALENTS
(as of 20 November 2020)

Currency unit	–	lari (GEL)
GEL1.00	=	$0.30337
$1.00	=	GEL3.2963

ABBREVIATIONS

ADB	–	Asian Development Bank
COVID-19	–	coronavirus disease
GDP	–	gross domestic product
ha	–	hectare
MEPA	–	Ministry of Environmental Protection and Agriculture
OP	–	operational priority
SDG	–	Sustainable Development Goal
SDP	–	sector development program
WUO	–	water user organization

NOTE

In this report, “$” refers to United States dollars.

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PROGRAM AT A GLANCE

1. Basic Data

Project Number: 54014-001

Project Name	Water Resources Sector Development Program	**Department/Division**	CWRD/CWER
Country	Georgia	**Executing Agency**	Ministry of Environmental Protection and Agriculture (MEPA), Ministry of Finance
Borrower	Georgia		
Country Economic Indicators	https://www.adb.org/Documents/LinkedDocs/?id=54014-001-CEI		
Portfolio at a Glance	https://www.adb.org/Documents/LinkedDocs/?id=54014-001-PortAtaGlance		

2. Sector

	Subsector(s)	ADB Financing ($ million)
✓ **Agriculture, natural resources and rural development**	Agricultural production	15.00
	Irrigation	30.00
	Rural water policy, institutional and capacity development	30.00
	Total	**75.00**

3. Operational Priorities

- ✓ Addressing remaining poverty and reducing inequalities
- ✓ Accelerating progress in gender equality
- ✓ Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability
- ✓ Promoting rural development and food security
- ✓ Strengthening governance and institutional capacity

Climate Change Information

GHG reductions (tons per annum)	0
Climate Change impact on the Project	Medium

ADB Financing

Adaptation ($ million)	20.00
Mitigation ($ million)	0.00

Cofinancing

Adaptation ($ million)	0.00
Mitigation ($ million)	0.00

Sustainable Development Goals

SDG 1.b
SDG 2.3, 2.4
SDG 5.a, 5.b, 5.c
SDG 6.4
SDG 13.a

Gender Equity and Mainstreaming

Effective gender mainstreaming (EGM) ✓

Poverty Targeting

General Intervention on Poverty ✓

4. Risk Categorization: Complex

5. Safeguard Categorization

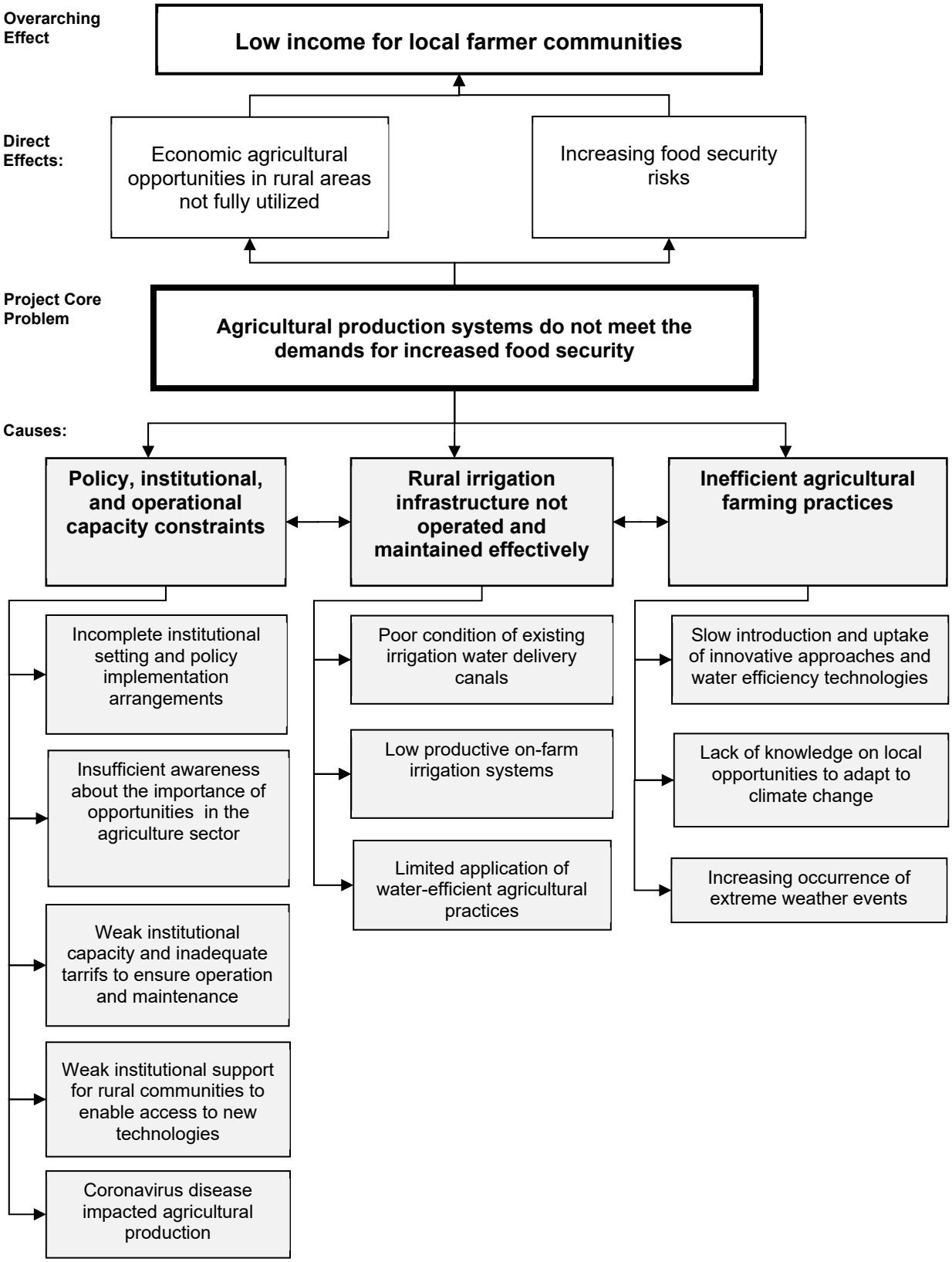
Environment: B **Involuntary Resettlement:** B **Indigenous Peoples:** C

6. Financing

Modality and Sources	Amount ($ million)
ADB	**75.00**
Sovereign SDP - Program (Regular Loan): Ordinary capital resources	50.00
Sovereign SDP - Project (Regular Loan): Ordinary capital resources	25.00
Cofinancing	**25.00**
To be determined - Project loan (Not ADB Administered)	25.00
Counterpart	**40.00**
Beneficiaries	20.00
Government	20.00
Total	**140.00**

Currency of ADB Financing: US Dollar

PROBLEM ANALYSIS DIAGRAM



I. THE PROGRAM

A. Rationale

1. **Macroeconomic outlook**.[1] Georgia is a small open economy strategically located at a crossroad between Europe and Asia. A key sector of its economy is services, which employs 49.4% of the population and contributes 73.6% to gross domestic product (GDP), while manufacturing employs 5.6% of population and contributes 8.5% to GDP, and construction employs 4.1% of population and contributes 7.0% to GDP. Georgia's economic growth was strong in 2019 at 5.1%, up from 4.8% in 2018, which reflects record spending on public investment and a sharp rise in exports. Georgia's strong growth performance has not been matched by commensurate reductions in unemployment and poverty. The unemployment rate marginally declined to 11.6% in 2019 (from 12.7% in 2018) with significant underemployment in the agriculture and education sectors. The percentage of the population living below the national poverty line was 20.1% in 2019, compared to 36.9% in 2006.

2. While economic performance remained strong before the coronavirus disease (COVID-19) pandemic, COVID-19 has negatively impacted the overall economy. As a result, real GDP shrank by 5.6% in the first 8 months of 2020 year-over-year. Declines were recorded in almost all sectors of the economy except for mining and quarrying. Total exports during January–August 2020 were $2.1 billion, a decline of 14.7% year-over-year. Georgia's agricultural exports as a share of total merchandise exports remained low at 21.1% in 2019.

3. **Sector performance**. Agricultural output in Georgia provides about 7.1% of GDP, significantly less than that during the Soviet Union period. Nearly 40% of the population is employed in low-productivity subsistence agriculture, where self-employment is prevalent. Effective irrigation and drainage services have been in decline since 2000, mainly because of a lack of new investments and poor maintenance. Consequently, agricultural production and productivity have fallen dramatically.[2] In the 1980s, nearly 0.5 million hectares (ha) of farmland were equipped for irrigation. Today, the irrigation-ready area has shrunk to less than one-fifth of that, and yields are low. Factors determining lower yields include water availability, farm sizes, outdated production practices, and marketing constraints. For example, land remains highly fragmented, with an average landholding by rural farming households of just 0.7 ha. Moreover, about 50% of all agricultural land is leased for smaller farms, which are inefficient.

4. Food security has become a serious concern for the government. It is the key driver in establishing an efficient and sustainable irrigation subsector. The expected impacts of COVID-19 and climate change further highlight the importance of improving food production.[3] Recognizing the importance of irrigated production systems, Georgia aims to increase the irrigable farmland area to 200,000 ha by 2025, an increase of around 112,000 ha over 2015 levels.[4] Modernizing irrigation systems is a key to this transition, along with developing output markets and extension services, and adopting on-farm high-efficiency irrigation technology.

5. Water resources availability in Georgia varies greatly by season and geographical area.

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[1] National Statistics Office of Georgia. https://www.geostat.ge/en.

[2] Current production is dominated by cereal grains, though the country's excellent soils and climatic conditions can support greatly expanded horticultural crop production.

[3] While Georgia's public health response has been generally effective in containing the spread of COVID-19, the pandemic is having a significant impact on the economy.

[4] Most of the increase is envisaged through modernization of existing gravity irrigation schemes, possibly supplemented by pumped surface water and groundwater development.

The western part of Georgia has sufficient resources, while the eastern part is dry and water is scarce. Reservoirs serving irrigation systems store less than 4% of the annual flow of east Georgian rivers. Georgia has abundant groundwater resources, but its use for irrigation is still limited. Development of water resources is constrained by a lack of national hydrological data collection and analysis systems. Climate change is threatening Georgia's water resources, in particular its natural mountain snowpack storage. During the last 50 years, the number of glaciers in Georgia has decreased by 13% and the glacier area decreased by 30%. With global warming, their full melting is projected by 2160.[5] Increasing climate resilience is critical for establishing sustainable agricultural production systems.

6. **Government responses**. By the end of 2012, the Ministry of Agriculture and the state-owned enterprise, Georgian Amelioration, initiated a corporate reform effort, which is ongoing.[6] The reform effort aims to develop the Georgian Amelioration into a financially viable main system service provider with local organizations as its clients. The intended reforms are summarized in the comprehensive 2017 Irrigation Strategy, which is intended to guide irrigation development and management in Georgia during 2017–2025.[7]

7. Since 2017, the Government of Georgia, through the Ministry of Environmental Protection and Agriculture (MEPA), has been implementing reforms to strengthen the irrigation subsector.[8] Legislation supporting the formal establishment and operation of water user organizations (WUOs) in Georgia was approved by Parliament on 17 December 2019. It transferred the responsibility of managing secondary irrigation canals to WUOs to improve local water resource management. Similarly, the Law of Georgia on Agricultural Land Ownership was approved in 2019 to support farmers in improving land ownership rights.

8 **Development problems**. Georgia still needs to take significant steps to ensure the development of an efficient and sustainable irrigation subsector. The 2017 Irrigation Strategy highlighted the key legal and institutional reforms that are needed to facilitate irrigation expansion, main system management, local management, irrigation tariffs, and regulation. It encompasses the rehabilitation of decayed irrigation infrastructure and the development of modern data-based professional and participatory irrigation management. Details are in the draft summary sector assessment (Appendix 2).

9. Specific reform areas of the legal and institutional framework to be addressed under the program include (i) strengthening the implementation arrangements for WUOs and land registration, including gender aspects;[9] (ii) transforming Georgian Amelioration into a financially viable service provider with local organizations as its clients; (iii) improving water management and allocation; and (iv) improving approval and application processes of new irrigation tariffs. Such reforms will reduce the development financing requirements of the government.10. Further support is also needed to address a lack of access to modernized approaches and technologies for improved irrigation. Current irrigation systems are outdated, and there is a lack of capacity of

[5] Government of Georgia. 2015. *Intended Nationally Determined Contribution Submission to the United Nations Framework Convention on Climate Change*. Tbilisi.

[6] Formerly the United Amelioration Systems Company of Georgia.

[7] Ministry of Agriculture and Georgian Amelioration. 2017. *Irrigation Strategy for Georgia 2017–2025*. Tbilisi. Supported by the World Bank's Water Partnership Program and Irrigation and Land Market Development Project.

[8] The Ministry of Agriculture was merged into the newly established Ministry of Environmental Protection and Agriculture in December 2017.

[9] For example, men own 62% of agricultural lands and women own 37%. This limits women's access to financial resources (National Statistics Office of Georgia. 2018. *Pilot Survey on Measuring Asset Ownership and Entrepreneurship from a Gender Perspective.* https://www.geostat.ge/media/21027/EDGE-Report-ENG-Final.pdf. Accessed on 22 June. 2020).

farmers and Georgian Amelioration to provide state of the art solutions. Currently, farmers have limited opportunities to improve their farming practices, innovate through new farm equipment, and access financing sources. The impacts of climate change are an increasing risk for agriculture production. Increasing climate resilience is critical for establishing sustainable agricultural production systems.

10. The government requested various development partners, including the Asian Development Bank (ADB) and the World Bank, to provide policy and investment support. This is to implement its ambitious Irrigation Strategy for increased agricultural production, food security, and livelihood opportunities for farming communities. Significant investments are also required to upgrade and modernize poorly functioning irrigation infrastructure. More efficient on-farm agricultural practices, including innovative technologies, increased water productivity, and improved water governance, need to be introduced. This is consistent with the government's climate change adaptation strategies.

11. **Lessons learned**. ADB will draw on valuable experiences from preparing other sector development programs (SDP) in Georgia, including best practices from other developing member countries.[10] These will contribute to preparing the first SDP in the agriculture, natural resources, and rural development sector in Georgia. ADB-financed SDPs have to date been efficient and effective in supporting the implementation of the government's sector strategies, and have contributed to diversifying the portfolio. The proposed SDP is aligned with the study conducted by the ADB Independent Evaluation Department.[11] It highlights the importance of integrated approaches for irrigation projects to also include production factors, and increase the attention paid to agricultural activities. It also recommends policy and institutional reforms, and private sector engagement to address key constraints on sector outcomes. Similarly, the World Bank highlighted the importance of legal, institutional, and policy reforms in parallel with irrigation infrastructure improvements to improve crop yields resulting from adequate irrigation.[12]

B. Proposed Solutions

12. The program will be aligned with the following impact: agriculture production and food security improved (footnote 7).[13] The program will have three outputs: the policy-based loan will support sector reforms under output 1, and the investment loan will support outputs 2 and 3. Sector reform is required to introduce sustainable food production systems under outputs 2 and 3. These outputs will result in the following outcome: modernized irrigation approaches implemented in eastern Georgia.[14]

13. **Output 1: Institutional, governance, management, and financial management enhanced.** This output will support the MEPA to strengthen its institutional capacity, financial management, and policies. It will improve the irrigation subsector and increase its contribution to the economy and development objectives of Georgia. The government is strongly committed to implementing necessary institutional and legal changes to support the irrigation reform strategy. Based on initial discussions with the government, policy actions are expected to focus on (i) strengthening the local implementation regulations and arrangements of the 2019 Law of Georgia

[10] For example ADB. 2020. *Sustainable Water Supply and Sanitation Sector Development Program*. Manila.
[11] ADB. 2018. *Sectorwide Evaluation: ADB's Support for the Agriculture, Natural Resources, and Rural Development Sector.* Manila. https://www.adb.org/documents/sector-wide-evaluation-adb-support-agriculture-natural-resources-and-rural-development.
[12] World Bank. 2014. *Irrigation and Land Market Development Project*. Washington DC; World Bank. 2020. *Additional Financing for the Irrigation and Land Market Development Project*. Washington DC.
[13] The program is included in the country operations business plan 2021–2023 as firm for 2021.
[14] The design and monitoring framework is in Appendix 1.

on Water User Organizations and the 2019 Law of Georgia on Agricultural Land Ownership; (ii) reforming the state-owned enterprise, Georgian Amelioration, to transform it into a more accountable and transparent bulk water supply organization; (iii) improving reservoir management and water resources allocation; and (iv) improving approval and application processes for new irrigation tariffs.[15] The policy reforms are required to create an enabling environment for outputs 2 and 3.

14. **Output 2: Irrigation schemes modernized.** Output 2 will support the modernization of outdated irrigation systems in the eastern part of Georgia. Depending on the potential for increased loan allocation, it is envisaged that output 2 will comprise two key subcomponents: (i) modernizing the Kvemo Samgori left main canal and (ii) modernizing the Tbisi-Kumisi irrigation system. Envisaged investments include in modernizing critical reaches of primary, distribution, and on-farm canals and network. Based on the due diligence process for the ensuing program, additional investment opportunities may be identified that will contribute to the program outcome and required modernization.

15. **Output 3: Innovative agriculture production systems demonstrated.** Output 3 will support WUOs, farmers, and farmer organizations to further improve and modernize their production systems. The output will have two subcomponents: (i) demonstrating and introducing innovative on-farm technologies; and (ii) developing capacity of WUOs, farmers, and farmer organizations. Innovative on-farm technological improvement could include (i) introducing water-saving irrigation infrastructure (including drip and/or sprinkler irrigation and laser land leveling), digital technologies, and remote sensing, e.g. for irrigation scheduling; (ii) realizing local water storage and recycling opportunities; (iii) supporting high-value crop production; and (iv) implementing advanced water management and resource monitoring. The approach for on-farm improvements will use the lessons learned from the practices introduced by, for example, World Bank-financed projects (footnote 11).

16. **ADB's Value Addition**. The integrated approach, combining policy and investment components, will serve as an entry point for further support to the sector, and will contribute to Georgia's objective of increased food security. Extensive institutional support and capacity building activities will be integrated into the program design for all water stakeholders. This will enable agencies to establish organizations that function as intended. The program is included in the country operations business plan 2021–2023, and is consistent with the Georgia country partnership strategy, 2019–2023, which includes support for strengthening governance and institutional capacity.[16] Extensive donor coordination will be conducted, including with Agence Française de Développement for possible cofinancing. Similarly, coordination will be conducted with the International Monetary Fund for the policy component, and the World Bank for consistency with its support in the irrigation subsector.

17. The proposed program will be aligned with ADB's Strategy 2030, particularly for the operational priorities (OPs) that involve (i) addressing remaining poverty and reducing inequalities (OP1); (ii) accelerating progress in gender equality (OP2); (iii) tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability (OP3); (iv) promoting rural development and food security (OP5); and (v) strengthening governance and institutional capacity (OP6).[17] The program will contribute to multiple Sustainable Development Goals (SDGs), including (i) addressing poverty (SDG 1), (ii) achieving food security (SDG 2), (iii) supporting

[15] Irrigation tariffs are to be developed by the Georgian National Energy and Water Supply Regulatory Commission.
[16] ADB. 2020. *Country Operations Business Plan: Georgia, 2021–2023*. Manila; ADB. 2019. *Country Partnership Strategy: Georgia 2019–2023—Developing Caucasus's Gateway to the World.* Manila.
[17] ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, and Sustainable Asia and the Pacific*. Manila.

gender equality (SDG 5), (iv) promoting integrated water resources management and restoration of ecosystems (SDG 6), and (v) strengthening resilience and adaptive capacity to climate-related and natural hazards (SDG 13).[18]

C. Proposed Financing Plans and Modality

18. The program duration will be 5 years and is estimated to cost $140 million, of which ADB is requested to finance $75 million. The policy-based loan component is estimated to cost $50 million, of which ADB will finance $50 million. The investment component is estimated to cost $90 million, of which ADB will finance $25 million. Cofinancing of an indicative $25 million by other development partners will be sought. ADB will either fully or partially administer the cofinancing. The central and local governments will provide counterpart financing for the investment component to cover taxes and duties, land acquisition and resettlement costs, and other miscellaneous costs, currently estimated at $20 million (Table 1). Opportunities for cash or in-kind contributions from local beneficiaries will be explored.

Table 1: Indicative Financing Plan

Source	Amount ($ million)	Share of Total (%)
Asian Development Bank		
Ordinary capital resources (regular policy-based loan)	50.0	35.7
Ordinary capital resources (regular project loan)	25.0	17.9
Cofinancing (to be determined) (project loan)	25.0	17.9
Government (to be determined)	20.0	14.3
Local beneficiaries (to be determined)	20.0	14.3
Total	**140.0**	**100.0**

SDP = sector development program.
Source: Asian Development Bank estimates.

19. Climate adaptation is estimated to cost $20 million. ADB will finance 100% of adaptation costs. The program will confirm the climate adaptation dimensions during program preparation.

20. The modality of the program will be an SDP using a programmatic approach for the policy component, which will provide more flexibility and a lower cost compared to a 2 tranches program. The government has a strong commitment to sector reform, demonstrated by ADB supported reforms in the energy and urban water subsectors, and in the irrigation subsector by the approvals of (i) the Irrigation Strategy (2017), (ii) Law of Georgia on Water User Organizations (2019), and (iii) the Law of Georgia on Agricultural Land Ownership (2019). The policy-based lending component, estimated at $50 million, will support the government with making the necessary reforms in the irrigation subsector. These are needed to establish cost recovery and equitable water allocation mechanisms to successfully implement the investment component, estimated to cost $90 million. They will involve primarily public sector reforms, but will stimulate private sector engagement in sector.

21. Because of increased pressures on revenue arising from an economic slowdown and measures related to the mitigation of the effects of the COVID-19 pandemic, the government's development financing needs are expected to be $1.5 billion.[19] In total, ADB expects to contribute $620 million through countercyclical operations and programs in 2020–2021 to supporting reforms in the energy, urban water, and education sectors, whichis about 40% of the total financing needs. Under the proposed program, financing of $50 million is foreseen for the policy component.

[18] United Nations. 2015. *Transforming Our World: The 2030 Agenda for Sustainable Development*. New York.
[19] Ministry of Finance. 2020. *Draft 2021 State Budget of Georgia*. Tbilisi. www.mof.ge/5355

D. Implementation Arrangements

22. The Ministry of Finance will be the executing agency for the policy component (Table 2). The MEPA will be the executing agency for the investment component and the implementing agency for the policy component. The MEPA will be the implementing agency for output 2 of the investment component and the state-owned Georgian Amelioration will be the implementing agency for output 3.[20] Program implementation will be led by a program management office established in the MEPA, supported by program implementation consultants.[21] The detailed program management office staffing requirements will still be determined during processing of the program. Possible roles of and coordination arrangements with stakeholders such as the Ministry of Regional Development and Infrastructure and the Georgian National Energy and Water Supply Regulatory Commission will be discussed and integrated into the program design.

Table 2: Indicative Implementation Arrangements

Aspects	Arrangements
Indicative implementation period	Policy component: December 2021–November 2024 Investment component: December 2021–November 2026
Indicative completion date	31 August 2026
Management	
(i) Executing agency	Policy component: Ministry of Finance Investment component: Ministry of Environmental Protection and Agriculture
(ii) Implementing agencies	Policy component: Ministry of Environmental Protection and Agriculture Investment component: Ministry of Environmental Protection and Agriculture; Georgian Amelioration

Source: Asian Development Bank.

II. PROGRAM PREPARATION AND READINESS

23. Transaction technical assistance (Appendix 4) of $0.9 million will be provided on a grant basis and financed from ADB's Technical Assistance Special Fund (TASF–other sources) to ensure that the ensuing program complies with ADB and government requirements.[22] Detailed engineering designs and implementation-ready land acquisition and resettlement plans will be approved by the time of Management Review Meeting. Invitation for Bids for civil works will be launched prior to Board approval.

24. ADB-financed procurement of goods, works, and nonconsulting and consulting services will be conducted in accordance with ADB's Procurement Policy (2017, as amended from time to time).[23] Advance contracting and retroactive financing are anticipated.

III. DELIBERATIVE AND DECISION-MAKING ITEMS

A. Risk Categorization

25. The SDP is categorized *complex* as the aggregated amount of loans of the proposed program exceeds $50 million.

26. The proposed program is categorized effective gender mainstreaming (Appendix 5). The following safeguard categorizations are proposed, in line with ADB's Safeguard Policy Statement (2009): B for environment and involuntary resettlement, and C for indigenous peoples. All

[20] Formerly the United Amelioration Systems Company of Georgia.
[21] The specific consultant requirements will be assessed and decided during project preparation.
[22] The technical asssitance is included in the country operations business plan 2020–2022 as firm for 2020.
[23] Terms of Reference for Consultants (accessible from the list of linked documents in Appendix 4). The terms of reference for the firm will be performance based.

infrastructure to be developed is relatively small and possible environmental impacts can be mitigated. No physical resettlement of people is anticipated for the program. None of the ethnic groups in Georgia are considered indigenous peoples as defined in the Safeguard Policy Statement for operational purposes.

B. Project Procurement Risk Classification

27. The recommended project procurement risk classification is *medium* (Appendix 3). Although procurement for the investment component is deemed *low* risk since no special or particularly large contract packages are expected, the executing agency and implementing agency are unfamiliar with ADB procedures.

C. Scope of Due Diligence

Table 3: Scope of Due Diligence

Due Diligence Outputs	To be undertaken by
Technical feasibility studies, including design guidelines	TA consultants, staff
Climate change assessment	TA consultants, staff
Economic analysis	TA consultants, staff
Financial management assessment (full scope included in the technical assistance)	TA consultants, staff
Gender analysis, collection of baseline data, and gender action plan	TA consultants, staff
Program administration manual (including a detailed implementation plan)	TA consultants, staff
Risk assessment and management plan (including for fraud and corruption)	TA consultants, staff
Strategic procurement plan, including a procurement risk assessment	TA consultants, staff
Safeguard documents (IEEs, EMP, LARP)	TA consultants, staff
Summary poverty reduction and social strategy	TA consultants, staff

EMP = environmental management plan; IEE = initial environmental examination; LARP = land acquisition and resettlement plan.
Source: Asian Development Bank.

D. Processing Schedule and Sector Group's Participation

28. The ensuing SDP is included in ADB's lending program as firm for 2021.

Table 4: Tentative Processing Schedule by Milestone

Milestones	Expected Completion Date
Consultants mobilization	January 2021
Loan fact-finding mission	July 2021
Management review meeting	September 2021
Board consideration	December 2021
Loan signing	December 2021

Source: Asian Development Bank.

E. Key Processing Issues and Mitigation Measures

29. The key issues, approaches, and mitigation measures are summarized in Table 5.

Table 5: Issues, Approaches, and Mitigation Measures

Key Processing Issues	Proposed Approaches and/or Mitigation Measures
1. Selection and implementation arrangements, including ensuring adequate O&M.	Detailed discussion will be held with government counterparts to design adequate oversight and O&M arrangements.
2. Coordination among different ministries and stakeholders	MEPA will organize and coordinate with the government agencies to ensure full support for the program design.
3. Procurement readiness	Timely support for MEPA to ensure adequate readiness.

MEPA = Ministry of Environmental Protection and Agriculture; O&M = operation and maintenance.
Source: Asian Development Bank.

PRELIMINARY DESIGN AND MONITORING FRAMEWORK

Impact the Program is Aligned with Agricultural production and food security in Georgia improved (Georgia Irrigation Strategy: 2017–2025)[a]

Results Chain	Indicative Policy Actions / Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
Outcome Modernized irrigation approaches implemented in eastern Georgia	By the end of 2026: Additional agricultural water supply of xx m^3 secured (2020 baseline: 0) (OP 3.2; OP 5.1)	MEPA annual reports	Changes in mandates for key relevant ministries and Georgia Amelioration
Output 1. Institutional, governance, management, and financial management enhanced (Policy component)			Government remains committed to implementing sectoral reforms
Reform Agenda 1: Strengthening the implementation arrangements of the 2019 Law of Georgia on Water User Organizations and the 2019 Law of Georgia on Agricultural Land Ownership	By 2024: 1.1a. MEPA prepared action plan for establishment of the first/pilot water user organizations, with sections defining membership and participation of female farmers (2020–2021) (OP 1.2; OP 2.3; OP 6.2) 1.1b. MEPA established national agency for sustainable land management and land use monitoring, including xx female staff (2020) (OP 2.3; OP 6.2) 1.1c. The government adopted sublegislative acts under the Law of Georgia on Determination of the Designated Purpose of Land and on Sustainable Management of Agricultural Land (2020) (OP 6.2) 1.1d. Implementation of updated existing land registration legislation to facilitate land registration reform for (i) the Law of Georgia on Procedures for Systematic and Sporadic Registration of Land Titles and Improvement of Cadastral Data (2019), (ii) Law on Recognition of Title to Land Plots Possessed (Used) by Natural Persons and Legal Entities of Private Law (2019), and (iii) Law of Georgia on Public Registry (2019) (OP 2.3; OP 3.2; OP 5.1; OP 6.2)	1.1a–1.1d MEPA annual reports	
Reform Agenda 2: Reform of state-owned enterprise Georgian Amelioration	By 2026: 1.2a. Updated inventory and valuation of assets of Georgian Amelioration (OP 6.2) 1.2b. External audits of Georgian Amelioration for 2022 and 2023 (OP 2.3; OP 3.2; OP 5.1; OP 6.2)	1.2a–1.2b MEPA annual reports	

Results Chain	Indicative Policy Actions / Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
Reform Agenda 3: Improved reservoir management and water allocation	By 2026: 1.3a. Implementation of MEPA independent dam safety assessment and design of dam safety activities for Algeti and Sioni dams 1.3b. Implementation of MEPA feasibility assessment study of the east Georgia irrigation reservoirs rehabilitation and construction program (OP 3.3; OP 5.1; OP 6.2)	1.3a–1.3b MEPA annual reports	
Reform Agenda 4: Approval and application of new irrigation tariffs	By 2026: 1.4. GNERC developed new irrigation tariff methodology (2021) (OP 2.3; OP 5.1; OP 6.2)	1.4 GNERC annual reports.	
Output 2. Irrigation schemes modernized (Investment component)	By 2026: 2a. Kvemo Samgori left main canal irrigation system modernized providing at least xx m^3 additional water (2020 baseline: 0) (OP 2.3; OP 3.2; OP 5.1; OP 6.2) 2b. Tbisi-Kumisi irrigation system modernized providing at least xx m^3 additional water (2020 baseline: 0) (OP 2.3; OP 3.2; OP 5.1; OP 6.2)	2a–2b. MEPA annual reports, completion certificates, third-party monitoring	
Output 3. Innovative agriculture production systems demonstrated (Investment component)	By 2026: 3a. xx innovate agriculture production technologies demonstrated (xx% in farms owned or dominated by women) (2020 baseline: 0) (OP 2.3; OP 3.2; OP 5.1; OP 6.2) 3b. xx farmers that take up the demonstrated new farming methods and technologies (2020 baseline: 0) (OP 1.2; OP 2.3; OP 3.2; OP 5.1; OP 6.2) 3c. xx farmers trained (xx% women) in the application and maintenance of innovative technologies (2020 baseline: 0) (OP 2.3; OP 3.2; OP 5.1; OP 6.2)	3a–3b. MEPA annual reports, completion certificates, third-party monitoring 3c. Training evaluation forms	

Key Activities with Milestones
1. Not applicable

2. Irrigation schemes modernized
2.1 Issue the request of proposals for project implementation consultants (Q3 Year 0)
2.2 Complete detailed designs (Q3 Year 0)
2.3 Advertise of IFB for main civil works contracts (Q4 Year 0)
2.4 Complete safeguards due diligence (Q2 Year 1)
2.5 Award the contract and mobilize contractors (Q3 Year 1)
2.6 Complete the civil works (Q2 Year 5)

Key Activities with Milestones
3. Innovative agriculture production systems demonstrated

Results Chain	Indicative Policy Actions / Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
3.1 Complete detailed designs (Q4 Year 1) 3.2 Complete safeguards due diligence completed (Q4 Year 1) 3.3 Procure equipment and mobilize contractors (Q2 Year 2) 3.4 Complete demonstration of innovative technologies (Q4 Year 4) 3.5 Design and implement training programs (Years 1–5)			
Program Management Activities Engage PMO staff (Q1 Year 1) Engage consulting services (Q1 Year 1) Procure office equipment (Q2 Year 1) Prepare quarterly and annual progress reports Prepare final program completion report (Year 5)			
Inputs ADB: $75 million (regular OCR loans) Policy component: $50 million (regular OCR loan) Project component: $25 million (regular OCR loan) Cofinancing: $25 million (loans)[c] Project component: $25 million (loan) Beneficiaries (project component): $20 million Government (project component): $20 million			

ADB = Asian Development Bank, GNERC = Georgian National Energy and Water Supply Regulatory Commission, m^3 = cubic meter, MEPA = Ministry of Environmental Protection and Agriculture, OCR= ordinary capital resources, OP = operational priority, PMO = project management office, Q = quarter.

[a] Ministry of Agriculture of Georgia and Georgian Amelioration. 2017. *Irrigation Strategy for Georgia 2017–2025*. Tbilisi. http://faolex.fao.org/docs/pdf/geo171443.pdf

[b] Links to results framework indicators will be established when the program design is firm.
Contribution to Strategy 2030 Operational Priorities:
In the report and recommendation of the President, the expected values and methodological details for all OP indicators to which this operation will contribute results will be detailed in the Contribution to Strategy 2030 Operational Priorities linked document.

[c] Initial discussions on possible cofinancing have started with Agence Française de Développement.

Source: Asian Development Bank.

SECTOR ASSESSMENT (SUMMARY): AGRICULTURE, NATURAL RESOURCES, AND RURAL DEVELOPMENT[1]

A. Sector Road Map

1. Sector Performance, Problems, and Opportunities

1. **Sector performance**. Agricultural output in Georgia provides about 7.1% of gross domestic product (GDP), significantly lower than during the Soviet Union times. Nearly 40% of the population is employed in low-productivity subsistence agriculture, which contributes 7.1% to GDP and where self-employment is prevalent. Effective irrigation and drainage services have been in decline mainly because of a lack of new investments and poor maintenance, and agricultural production and productivity have fallen dramatically.[2] In the 1980s, nearly 0.5 million hectares (ha) of farmland were equipped for irrigation. Today, the irrigation-ready area has shrunk to less than a one-fifth of that, and yields are low. Factors determining lower yields include water availability, farm sizes, and marketing constraints. For example, land remains highly fragmented, with average individual private landholdings of just 0.7 ha. Moreover, about 50% of all agricultural land is leased as inefficient smaller farms.

2. Georgia has a variety of climatic zones which allows the production of temperate and tropical crops. The country's main agricultural products include cow's milk (26.0% of agricultural GDP), potatoes (10.3%), maize (9.9%), grapes (6.0%), and wheat along with other fruits such as apples and watermelons. Crops produced by Georgia cover the arable land and land classified for plantation crops. By major crop group, these lands are apportioned as follows: cereal crops 43%; fruits 25%; pulses 16%; and vegetables, root crops, and oil crops 16%. Roughly 0.73 million ha of the country's agricultural lands (30% of the total land area) is irrigable and approximately 0.40 million ha have irrigation facilities.

3. As a net importer of agricultural goods, the opportunity also exists for the country to raise the productivity of key agricultural products such as wheat and horticultural crops. During 2010–2016, average annual agricultural imports were worth around $1.1 billion. Wheat is the country's key import and is largely sourced from Kazakhstan, the Russian Federation, and Switzerland. An annual average of $846 million of wheat, accounting for about 76% of annual average agricultural imports, was imported during 2010–2016. Other major agricultural crop imports include raw sugar from Cuba and refined sugar from Palestine and Belarus. Average annual agricultural exports during 2010–2016 were about $576 million (about 52% of agricultural imports). The top agricultural export is hazelnuts ($134 million annual average revenue, 23% of total agricultural exports), followed by wine ($97 million, 17% of total agricultural exports). Other export products are fruits and grains, albeit on a moderate scale. Key export destinations include Kazakhstan, Ukraine, Germany, and Italy.

4. **Water management and Irrigation**. Despite Georgia's limited land area of 6.9 million ha, the country has abundant freshwater resources. This can be viewed as an opportunity for raising the productivity of major crops, especially those that have high potential export revenue. The country has around 25,075 rivers, with around 8,000 flowing through the eastern part where agricultural production is predominant. Moreover, Georgia does not have pressing need for

[1] This summary is based on the aide-mémoire from the consultation mission of 18–22 June 2020 (available on request).

[2] Current production is dominated by cereal grains, though the country's excellent soils and climatic conditions can support greatly expanded horticultural crop production.

irrigation because of more regular rains and cooler temperatures than in some irrigation-dependent countries in Central and West Asian. Hence, only 58.6% of the water withdrawal in the country is used to meet the demands of the agriculture sector, which is generally less than that of irrigation-dependent countries (usually requiring over 90.0% of water withdrawal).

5. Water resources availability in Georgia varies greatly by season and geographical area. The western part of Georgia has sufficient resources, while the eastern part is dry and lacks water. The operating irrigation reservoirs have the ability to store less than 4% of the annual flow of east Georgian rivers. Overall Georgia has abundant groundwater resources, but its use for irrigation (including drip irrigation) is still limited. Development of water resources is constrained by a lack of operating national hydrologic data collection and analysis systems, and by ineffective water allocation. Moreover, climate change is threatening Georgia's natural mountain snowpack storage.

6. **Development challenges**. Food security has become a serious concern for the government and is the key driver in establishing an efficient and sustainable irrigation subsector. Moreover, the expected impacts of the coronavirus disease (COVID-19) pandemic and climate change further highlight the importance of improving food production.[3] Recognizing the importance of irrigated production systems, Georgia aims to increase the irrigable farmland area to 200,000 ha by 2025, an increase of around 112,000 ha over 2015 levels.[4] Modernizing irrigation systems is a key to this transition, along with developing output markets and extension services, and adopting on-farm drip irrigation technology.

7. Georgia's legal and institutional framework still needs significant improvements to ensure the development of an efficient and sustainable irrigation subsector.[5] For example, it is envisaged that farmers with improved irrigation service would be able to afford to pay more for irrigation than they do now. This is despite distinct limits in the ability to pay because of small farm sizes together with yield and marketing constraints. While the country's agriculture sector and agrarian reforms have made headway in allowing free markets to flourish, further improvement and modernization of agriculture production systems is critical. There is also a lack of an efficient supply and value chain which links production to markets, and it is hard for farmers and agri-business enterprises to plan crop production and business efficiently. In a bid to improve farm productivity, since 2005 the government has been distributing the rest of the land under state control to farm households.

2. Government's Sector Strategy

8. **Government responses**. The Government of Georgia has initiated a number of national and regional programs to support rural communities with improving their development opportunities. In 2015, to enhance the competitiveness of the agriculture sector, the Ministry of Agriculture introduced six development pillars: (i) enhancing competitiveness of rural enterprises, (ii) developing and strengthening institutions, (iii) improving soil fertility, (iv) developing agricultural value chains, (v) ensuring food safety, and (vi) building resilience to climate change.[6]

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[3] While Georgia's public health response has been generally effective in containing the spread of COVID-19, the pandemic is having a significant impact on the economy.

[4] Most of the increase is envisaged through modernization of existing gravity irrigation schemes, possibly supplemented by pumped surface water and groundwater development.

[5] For example, the country currently lacks a formal system of water resource allocation, though amendments in the water law currently pending approval will establish a water permit system.

[6] Ministry of Agriculture. 2015. *Strategy for Agricultural Development in Georgia 2015–2020*. Tbilisi. http://extwprlegs1.fao.org/docs/pdf/geo145265.pdf

9. Georgia anchors its current economic development strategies on free market principles to strengthen the role of the private sector in achieving inclusive economic growth. It does so by offering a package of incentives to enhance the attractiveness and profitability of doing business in the country. The overall strategy is outlined in the government's Socio-economic Development Strategy (Georgia 2020), underscoring the need to improve private sector competitiveness and promote macroeconomic stability. The government also adopted the Four-Point Reform Plan in 2017 to accelerate economic growth by further enhancing the investment climate through improvements in the education system, implementation of infrastructure projects to develop Georgia's potential as a transit and tourism hub, and efficiency in public governance.

10. In the Four-Point Reform Plan, the government specified plans to develop the agriculture sector through (i) capacitating more than 1,650 registered cooperatives, (ii) improving land productivity, (iii) developing post-harvest technologies, (iv) improving agricultural insurance and financial systems, and (v) promoting export. Policies on cooperative development are anchored in strategies by the Agricultural Cooperative Development Agency, which was established in 2013. Meanwhile, land productivity improvements are carried out through (i) rational management of agricultural land, (ii) development of a farmers' registry and a geo-information system of land use, and (iii) research on degraded soils. The government also plans to promote value chain development by improving post-harvest processing, storing, sorting, packing and marketing. Together with these measures, improving agricultural insurance systems and promoting farmers' access to commercial loan financing will facilitate capital accumulation.

11. **Irrigation reforms.** By the end of 2012, new leadership in both the Ministry of Agriculture and the state-owned Georgian Amelioration initiated corporate reform, which is ongoing.[7] That reform effort aims to transform Georgian Amelioration into a financially viable main system service provider with local organizations as its clients, i.e., mainly the water user organizations (WUOs). Accomplishments include regional decentralization and new enterprise management software to support data-based management decision-making, along with ongoing efforts to establish a computerized asset inventory, explore a variety of new contracting modes with local farmer-based entities, and develop a radically new tariff system. Current operating income, excluding government subsidies, constitutes just 13% of expenditures. The ultimate success of these reforms will depend on the successful reform of the tariff system, cost control, efficient system operations, and establishment of viable local level management entities.

12. Details of the intended reforms are summarized in the comprehensive 2017 Irrigation Strategy, intended to guide irrigation development and management in Georgia for 2017–2025.[8] The strategy highlights key legal and institutional reforms that are needed to facilitate irrigation expansion, main system management, local management, irrigation tariffs, and regulation. It encompasses both the rehabilitation of decayed irrigation infrastructure and the development of modern data-based and participatory irrigation management capacity.

13. It is envisaged that Geogian Amelioration will continue to operate as a single private corporation over the medium term, taking advantage of the financial discipline and results orientation which typically characterize such entities. As long it is publicly owned, Georgian Amelioration will aim to operate at a financial break-even point. It will cover all operation and maintenance, administrative, and depreciation costs, with return on capital (profit) set to zero. Interest on private capital could be included in the rate structure, with the approval of the regulator.

[7] Formerly the United Amelioration Systems Company of Georgia.

[8] Ministry of Agriculture and Georgian Amelioration. 2017. *Irrigation Strategy for Georgia 2017–2025*. Tiblisi. http://faolex.fao.org/docs/pdf/geo171443.pdf

This may emerge in the future. Georgian Amelioration will retain its present decentralized structure, with the regional divisions operating under the umbrella of a single unified national corporation to minimize overhead costs.

14. Georgian Amelioration will assume the role of bulk water supplier to local organizations, which will distribute water and operate local facilities supplying individual farms. To facilitate this process, a newly formed WUO support unit will take the initiative in forming and supporting local organizations which will provide service to individual users. Once these local organizations are established, Georgian Amelioration will enter into contracts with them for bulk water supply by operating and maintaining the main system facilities under it purview, including dams, major canals, diversion structures, and major off-take structures. Georgian Amelioration will transform its operations by introducing modern data-based management practices for water delivery, facilities maintenance, and financial and administrative management.

15. The government has also highlighted a need for independent oversight to review the costs that Georgian Amelioration proposes to pass on to its clients in the form of tariffs, and also to monitor and ensure the quality of service it provides to WUOs. The service it provides can be regulated through contract provisions in agreements between Georgian Amelioration and local management entities such as WUOs. Provisions may include penalties for failure to deliver agreed-upon irrigation services. The designated regulator would provide external adjudication for resolving disputes between Georgian Amelioration and its clients.

16. **Local water resources management**. To improve local water resources management, a law supporting the formal establishment and operation of WUOs in Georgia was approved by Parliament on 17 December 2019. Farmer-governed WUOs will be the primary local organization responsible for managing water delivery to individual farms. Retail water delivery may also be undertaken by large commercial farmers who contract with Georgian Amelioration for bulk water supply, or by municipalities who have organized to provide local irrigation water delivery services. To facilitate this two-part irrigation management structure, Georgian Amelioration will, in consultation with local farmers, subdivide all irrigation systems under its purview into smaller contiguous units on the basis of rational hydraulic boundaries. These units will typically be around 1,000 ha each, though they may be larger or smaller depending on local conditions.

17. A WUO will be established by a majority affirmative vote of landowners within the boundaries of a designated local management unit. It will result in the creation of irrigation service organizations in which participation of all eligible landowners is required. The WUO will then receive a right to use the local irrigation facilities within the unit through a contract with Georgian Amelioration. It will have exclusive authority to purchase bulk water supplies, distribute those supplies inside the local unit, and to collect irrigation tariffs from the farmers served. Bulk water will be supplied by Georgian Amelioration under a contract with the WUO or other local management entity. The WUO may choose to hire its own staff to operate the local system or to contract with a private firm to operate and maintain its facilities.

18. The WUO will then contract with individual farmers for irrigation service in exchange for payment of service fees. These will be set by the WUO board of directors based on its costs of operation. It will also be responsible for maintaining local facilities to standards called for in its contract with Georgian Amelioration, and for paying Georgian Amelioration for the bulk water supply received.

B. Major Development Partners: Strategic Foci and Key Activities

19. The Government of Georgia requested various development partners, including the Asian Development Bank (ADB) and the World Bank, to support the implementation of its ambitious Irrigation Strategy. Significant legal and administrative actions are needed to create a vibrant and viable irrigation subsector that can support increased agricultural production, food security, and livelihood opportunities for farming communities. Also, significant investments are required in order to modernize and rehabilitate the poorly functioning irrigation infrastructure. More efficient on-farm agricultural practices need to be introduced, consistent with the government adaptation to climate change strategies.

Major Development Partners

Development Partner	Project Name	Duration	Amount ($ million)
Irrigation and Agriculture			
World Bank	Irrigation and Land Market Development Project	2014–2019	50.0
World Bank	Irrigation and Land Market Development Project (Additional Financing)	2020–2021	20.4
Government of the Netherlands	Development Phase for the Rehabilitation of Zemo Samgori Irrigation System		0.9

Source: Asian Development Bank estimates.

C. Institutional Arrangements and Processes for Development Coordination

20. The Ministry of Finance will be the executing agency for the policy component. The Ministry of Environmental Protection and Agriculture (MEPA) will be the executing agency for the investment component, the implementing agency for the policy component, and the implementing agency for output 2 of the invefstment component.[9] The state-owned Georgian Amelioration will be the implementing agency for output 3 of the investment component. Program implementation will be led by a program management office established in the MEPA, supported by program implementation consultants.[10] Possible roles of and coordination arrangements with stakeholders such as the Ministry of Regional Development and Infrastructure and the Georgian National Energy and Water Supply Regulatory Commission will be discussed and integrated into the program design.

21. Initial discussions on donor coordination and possible cofinancing have been conducted with Agence Française de Développement, the World Bank, and the Government of the Netherlands. Consultations will continue with other development partner to introduce the proposed project activities, ensure that no overlap with other programs occur, and discuss opportunities and interests to consider cofinancing the project.

D. ADB Experience and Assistance Program

22. The proposed program will be ADB's first support for the agriculture, natural resources, and rural development sector in Georgia.[11] The sector development program (SDP) is included in the ADB country operations business plan, 2021–2023.[12] The program complements ADB's

[9] The Ministry of Agriculture was merge into the newly established Ministry of Environmental Protection and Agriculture in December 2017.
[10] The specific consultant requirements will be assessed and decided during project preparation.
[11] Since 2007, ADB has had 18 commitments in water and urban operations totaling $593 million.
[12] ADB. 2020. *Country Operations Business Plan: Georgia, 2021–2023.* Manila; ADB. 2019.

ongoing operations in Georgia to increase the sustainability of corresponding infrastructure and efficiency of service delivery.

23. The proposed program is aligned with ADB's Strategy 2030, particularly for the operational priorities (OP) that involve (i) accelerating progress in gender equality (OP2); (ii) tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability (OP3); and (iii) promoting rural development and food security (OP5).[13] The project will contribute to multiple Sustainable Development Goals (SDGs), including (i) achieving food security (SDG 2), (ii) supporting gender equality (SDG 5), (iii) promoting integrated water resources management and restoration of ecosystems (SDG 6), and (iv) strengthening resilience and adaptive capacity to climate-related and natural hazards (SDG 13).[14]

24. **Lessons learned**. ADB will draw on valuable experiences from other SDPs in Georgia and in other developing member countries for the preparation of the first SDP in the agriculture, natural resources, and rural development sector in Georgia. ADB's SDPs have been efficient and effective in supporting the implementation of the government's sector strategies, and contribute to diversifying the portfolio. The program is aligned with the study conducted by the Independent Evaluation Department.[15] This highlights the importance of integrated approaches for irrigation projects to also include production factors, and increase the attention paid to agricultural activities, policy and institutional reforms, and the private sector to address key constraints on outcomes. Similarly, the World Bank Irrigation and Land Market Development Project highlighted the importance of legal, institutional, and policy reforms in parallel with irrigation infrastructure improvements to significantly improve crop yields resulting from adequate irrigation.[16] It is acknowledged that the 2014 World Bank project also experienced challenges of poor engineering design, cost overrun, and implementation delay . These will be addressed during the preparation of the program.

[13] ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, and Sustainable Asia and the Pacific*. Manila.
[14] United Nations. 2015. *Transforming Our World: The 2030 Agenda for Sustainable Development*. New York.
[15] Independent Evaluation Department. 2018. *Sectorwide Evaluation: ADB's Support for the Agriculture, Natural Resources, and Rural Development Sector.* Manila: ADB. https://www.adb.org/documents/sector-wide-evaluation-adb-support-agriculture-natural-resources-and-rural-development
[16] World Bank. 2014. *Irrigation and Land Market Development Project*. Washington, DC; World Bank. 2020. *Additional Financing for the Irrigation and Land Market Development Project.* Washington, DC.

PROCUREMENT RISK CLASSIFICATION

Ref	Component	Response
1.	How many implementing agencies are proposed to be involved in the project?	2
2.	Do the proposed implementing agencies have procurement experience under prior projects financed by ADB, MDBs, and/or other development partners?	☐ ADB ☒ Other MDB ☐ No
3.	Have the proposed implementing agencies experienced significant procurement and/or contractual issues, including long procurement lead times (bid invitation to contract signing) on past ADB or other externally financed projects?	☐ Yes ☒ No ☐ Not applicable
4.	Did the proposed implementing agencies require external support on past ADB-financed projects to process procurement transactions?	☐ Yes ☐ No ☒ Not applicable
5.	Is advance contracting and/or retroactive financing expected?	Advance Contracting: ☒ Yes ☐ No Retroactive Financing: ☒ Yes ☐ No
6.	Are complex contracts expected?	☐ Yes ☒ No
7.	Are high value contracts (>$50 million) expected?	☐ Yes ☒ No
8.	Is the distribution of contracts under the project geographically dispersed, which could add complexity in packaging, implementation, and contract management?	☐ Yes ☒ No
9.	Are there any supply market restrictions expected in the provision of the required goods, works, and nonconsulting and consulting services?	☐ Yes ☒ No
10.	Does the implementing agency have formal procedures in place for contract management?	☒ Yes ☐ No
11.	Will an e-procurement system be used on the project?	☒ Yes ☐ No (except for 1S2E)
Narrative details and regional department's overall comments (Frank Radstake)		
No complicated or high-value procurement is expected. The executing agency has no experience with ADB procurement, but has experience in implementing two World Bank projects. Since Georgia has a strong public procurement system and practices, no significant risks or complications are expected.		
PPFD comments and concept stage procurement risk rating (Thomas Robinson)		
The project procurement risk, premitigation, is assessed to be *medium,* as the implementing agencies have no prior ADB experience. It is noted that the risk classification for procurement will be reconsidered during project processing given that Georgia has a strong public procurement system and practices. The preparation of a strategic procurement plan will be required.		

ADB = Asian Development Bank; MDB = multilateral development bank; PPFD = Procurement, Portfolio and Financial Management Department.
Source: Asian Development Bank.

TECHNICAL ASSISTANCE FOR PROJECT PREPARATION

A. Justification

1. The Transaction technical assistance (TA) will support the government prepare the program, in compliance with ADB requirements. It will be consistent with international good practices and will develop government's capacity to implement the ensuing program.[1]

B. Outputs and Activities

2. The major output of the TA will be a program design which responds to the government's needs and fulfills ADB requirements. The specific outputs and activities are summarized in Table A4.1. Additional funding may be mobilized, if needed.

Table A4.1: Summary of Major Outputs and Activities

Major Outputs	Delivery Dates	Key Activities with Milestones
1. Preparation of the project design	Draft final report (September 2021) Final report (December 2021)	1.1 Initial assessment and scheduling 1.2 Sector study and institutional analysis 1.3 Policy matrix 1.4 Project technical design and appraisal 1.5 Economic analysis (outputs 2 and 3) and financial assessment 1.6 Detailed implementation plan 1.7 Climate change assessment 1.8 Poverty, social, and gender assessment
2. Compliance with safeguard and social policies, and gender mainstreaming requirements	Draft final report (September 2021) Final report (December 2021)	2.1 Safeguard assessment matrix 2.2 Social economic survey, gender, and poverty assessment 2.3 Gender action plan 2.4 Social safeguards (including LARPs) 2.5 Environmental assessment (IEEs, EMP)
3. Assessment of implementation capacity	Draft in the interim report (June 2021) Final in the draft final report (September 2021)	3.1 Procurement risk assessment 3.2 Institutional capacity and training needs 3.3 Procurement capacity assessment 3.4 Financial management assessment[a] 3.5 Risk assessment on fraud and corruption 3.6 Integrity due diligence of Georgian Amelioration

EMP = environmental management plan, IEE = initial environmental examination, LARP = land acquisition and resettlement plan.

[a] Including cost estimates and financing plan; program viability or sustainability analysis; financial evaluation and analysis; financial management assessment; sustainability assessment of executing and implementing agencies; and design of funds flow, accounting, auditing, and financial reporting arrangements

Source: Asian Development Bank.

C. Cost and Financing

3. The TA is estimated to cost $1.0 million, of which $0.9 million will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-other sources). The key expenditure items are in Table A4.2. The government will provide counterpart support in the form of counterpart staff, office space for government staff, meeting rooms, and other in-kind contributions. The government was informed that approval of the TA does not commit ADB to finance any ensuing project.

[1] The TA first appeared in the business opportunities section of ADB's website on 31 August 2020.

Table A4.2: Cost Estimates and Financing Plan
($'000)

Item	Amount
A. Asian Development Bank[a]	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	539.25
ii. National consultants	219.75
b. Out-of-pocket expenditures	
i. International and local travel	35.04
ii. Office space rental and related facilities	18.00
iii. Goods (rental and/or purchase)[b]	8.00
iv. Surveys	10.00
v. Training, seminars, and conferences[c]	6.00
vi. Reports and communications	2.00
vii. Miscellaneous administration and support costs[d]	3.91
2. Training, seminars, and conferences	
a. Facilitators	5.50
b. Travel cost of ADB staff acting as a resource person[e]	5.00
c. Participants and Representation[e]	0.50
3. Contingencies	47.05
Total	**900.00**

Note: The technical assistance (TA) is estimated to cost $1.0 million, of which contributions from the Asian Development Bank are presented in the table. The government will provide counterpart support in the form of counterpart staff, office space for government staff, meeting rooms, and other in-kind contributions. The value of the government contribution is estimated to account for 10% of the total TA cost.

[a] Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-other sources).

[b] These include computers, printers, photocopiers, and security equipment. At the end of the TA, all goods and equipment procured will be turned over to the Ministry of Environmental Protection and Agriculture.

[c] These workshops, training, seminars, and conferences will be administered by the consultants. Costs may include representation costs, such as food and beverages.

[d] Includes interpretation and translation costs.

[e] Per Asian Development Bank memo approved on 26 June 2013 on the Use of Bank Resources: Regional Technical Assistance and Technical Assistance vs. Internal Administrative Expenses Budget.

Source: Asian Development Bank estimates.

D. Implementation Arrangements

4. ADB, through the Environment, Natural Resources and Agriculture Division of the Central and West Asia Department, will administer the TA. The MEPA will be the executing agency and the implementing agency for outputs 1 and 3. The state-owned enterprise, Georgian Amelioration, will be the implementing agency for output 2.[2] Project implementation will be led by a project management office established in the MEPA, supported by the transaction TA consultants. The implementation arrangements are summarized in Table A4.3.

Table A4.3: Implementation Arrangements

Aspects	Arrangements		
Indicative implementation period	December 2020–May 2022		
Executing agency	Ministry of Environmental Protection and Agriculture		
Implementing agencies	Ministry of Environmental Protection and Agriculture Georgian Amelioration		
Consultants	To be selected and engaged by ADB		
	Firm: FBS method, FTP	Project design consultant	$855,000
	Individual (national): Individual selection	Project implementation specialist (6 person-months)	$34,000

[2] Formerly the United Amelioration Systems Company of Georgia.

Aspects	Arrangements		
Procurement	To be procured by consultants		
	Request for quotations	Computers, selected office and security equipment (1 contract)	$8,000
Advance contracting	Advertisement for the firm and individual consultants is anticipated prior to TA approval.		
Disbursement	The TA resources will be disbursed following ADB's *Technical Assistance Disbursement Handbook* (2020, as amended from time to time).		
Asset turnover or disposal upon TA completion	Goods and equipment purchased will be turned over to the MEPA at the end of the TA.		

ADB = Asian Development Bank, FBS = fixed budget selection, FTP = full technical proposal, MEPA = Ministry of Environmental Protection and Agriculture, TA = technical assistance.
Source: Asian Development Bank estimates.

E. Consulting Services

5. ADB will engage the consultants following the ADB Procurement Policy (2017, as amended from time to time) and its associated staff instructions.[3] The project design consultant will procure computers, selected office equipment, and security equipment, which will be handed over to the MEPA upon completion of the TA. The Environment, Natural Resources and Agriculture Division of the Central and West Asia Department will supervise and evaluate the consultants.

1. Firm

a. Scope of the Assignment

6. The major output of the assignment will be a program design which responds to government's needs and fulfill ADB requirements. Specifically, the outputs include (i) sector assessment and institutional analysis; (ii) financial management assessment, procurement capacity assessment, and strategic procurement plan; (iii) stakeholder analysis, and problems and constraints identified; (iv) a project technical, environmental, economic, financial and social appraisal; (v) a participatory gender action plan and a social development action plan; (vi) a resettlement plan, and an ethnic minority development plan, if needed; (vii) an environmental assessment, including an environmental management plan; and (viii) an institutional and capacity-building plan.

7. The major outputs and activities are summarized in Table A4.4.

Table A4.4: Summary of Major Outputs and Activities

Major Outputs	Delivery Dates	Key Activities with Milestones
1. Preparation of the project design	Draft Final Report (September 2021 Final Report (December 2021)	1.1 Initial assessment and scheduling 1.2 Sector study and institutional analysis 1.3 Policy Matrix 1.4 Project technical design and appraisal 1.5 Economic analysis (Outputs 2 and 3) and financial assessment 1.6 Detailed implementation plan 1.7 Climate change assessment 1.8 Poverty, social and gender assessment
2. Compliance with safeguard and social policies	Draft Final Report (September 2021)	2.1 Safeguard Assessment Matrix 2.2 Social economic survey, consultations, and poverty assessment 2.3 Gender Action Plan 2.4 Social safeguards (including LARPs)

[3] Terms of Reference for Consultants (accessible from the list of linked documents in Appendix 2).

	Final Report (December 2021)	2.5 Environmental assessment (IEEs, EMP)
3. Assessment of implementation capacity	Draft in the Interim Report (June 2021 Final in the Draft Final Report (December 2021)	3.1 Procurement risk assessment and strategic procurement plan 3.2 Institutional capacity and training needs 3.3 Procurement capacity assessment 3.4 Financial management assessment[4] 3.5 Risk assessment on fraud and corruption 3.6 Integrity due diligence (IDD) of Georgian Amelioration

EMP = environmental management plan, IEE = initial environmental examination, LARP = land acquisition and resettlement plan.
Source: ADB Estimate.

b. Key Expertise Required

8. Proposing entities will determine the number and the specific expertise along with their inputs of the specialists they will require to achieve the objectives of the contract, in accordance with their proposed approach and methodology. However, ADB requires a minimum of four international key experts and one national key expert (Table A4.5).

Table A4.5: Summary of Key Expert Positions

International Positions	National Positions
Institutional specialist (water/agricultural policy reform) Water resources development specialist Climate change adaptation specialist (water) Economist (rural development)	Rural development engineer/Deputy Team Leader

Source: Asian Development Bank estimates.

9. The specific tasks of the key experts are elaborated below. One of the international key experts is expected to act as team leader and be also responsible to at least (i) manage the assignment including the international and national inputs, (ii) coordinate and support all team activities, (iii) guide the team in achieving high quality technical deliverables, and (iv) review and authorize all reports (milestones, progress, final, etc.). The international team leader will have an input of at least 7 person months. The national key expert will act as the deputy team leader and will have a minimum input of at least 8 person months.

10. **Institutional specialist (water/agricultural policy reform)** (international). The Institutional specialist will have at least a graduate degree, preferably a post graduate degree, in governance, water resources management, agriculture, or a field relevant to water and agriculture policy reforms. The specialist will have at least eight years of professional experience in policy assessment and development. Experience in Georgia and other countries in the Caucasus or Central Asia is preferred. The specialist will have demonstrated ability to work in a multidisciplinary team and will possess excellent communication (written and oral) skills in English. The specialist will be responsible for aspects related to Output 1, primarily related to the sector study and the preparation of the policy matrix. Specific tasks include at least:

- conduct a detailed assessment of the institutional and regulatory arrangements in the irrigation sector, including agriculture production and marketing aspects;
- review the recommendations and lessons learned from the current water supply and sanitation SDP (especially with respect to any proposed changes to the water tariff);

[4] Including Cost Estimates and Financing Plan; Program Viability or Sustainability Analysis, Financial Evaluation/Analysis; Financial Management Assessment (FMA), Sustainability assessment of executing and implementing agencies, Design of funds flow, accounting, auditing, and financial reporting arrangements.

- summarize the finding and prepare a detailed sector assessment;
- asses the capacity of the SOE Georgian Amelioration to become financially and operationally independent as part of this program;
- assess the possibility to provide a financial intermediary loan to the SOE to make them operationally stronger;
- consider possibilities to bring in private sector under the project component (e.g. consider public-private partnership modality or a pilot program where private sector could be brought in as part of its initiative);
- take the lead in discussions and formulation of the proposed policy actions, like to focus on (i) strengthening the implementation arrangements of the 2019 '*Law of Georgia on Water User Organizations'* and the 2019 *'Law of Georgia on Agricultural Land Ownership*', (ii) the reform of state-owned enterprise Georgian Amelioration, (iii) improving reservoir management and water allocation; and (iv) the approval and application of new irrigation tariffs;
- in close cooperation with the international economist, assess and determine the attributable value of the policy actions;
- ensure consistency with and integration of the proposed policy actions and the investment components;
- contribute to the preparation of all project documents, as necessary; and
- participate in and present findings at consultations and workshops.

11. **Water resources development specialist** (international). The specialist will have at least a graduate degree, preferably a post graduate degree, or equivalent qualification in water resources management, irrigation, water engineering, or other related fields, and at least eight years of international professional experience in rural water development projects. Experience in Georgia and other countries in the Caucasus or Central Asia is preferred. The specialist will have demonstrated ability to work in a multidisciplinary team and will possess excellent communication (written and oral) skills in English. The specialist will have overall responsibility for ensuring the sustainable development and usage of water resources for the project. Specific tasks include at least:

- describe and assess existing water resources, supply and demand, and management, for the project area;
- conduct simple water balance analysis to assess the sustainability of existing and future project demand, including cumulative and downstream impacts with adjacent planned development and potential impacts of climate change on water quality and availability;
- review the water allocation arrangements for the specific target areas;
- identify existing water-intensive and water-efficient farming and forestry practices in the project area (including any traditional methods);
- develop cost-effective measures to conserve water, reduce soil salinity, and protect topsoil, including measures for farming, forestry, and operation of on-site infrastructure (e.g., water meters);
- lead the feasibility design of example projects and develop a manual for developing of subsequent feasibility and detailed design, including clues for contract management for further feasibility studies and detailed designs;
- assess local capacity for water management for agricultural use and conduct training workshops in best-practice measures of water conservation in dryland regions, tailored to the project areas;
- develop simple long-term water monitoring programs for the project areas; and

- prepare a technical report of the findings and necessary inputs to the draft RRP.

12. **Climate change adaptation specialist (water)** (international). The climate change adaptation specialist will have at least a graduate degree in civil engineering, meteorology, hydrology or a field relevant to climate change and at least eight years of professional experience in climate change studies. Experience in Georgia and other countries in the Caucasus or Central Asia is preferred. The specialist will have demonstrated ability to work in a multidisciplinary team and will possess excellent communication (written and oral) skills in English. The specialist will be responsible for aspects related to climate change, primarily related to water related adaption approaches and drought management. Specific tasks include at least:

- collate and synthesize relevant climate datasets required for assessing drought and flood risks for the project areas, and identify major data gaps;
- Analyze historical and current trends in climate change risks for study areas, based on observed datasets;
- analyze potential future adaptation strategies and approaches for the sub-project areas, drawing on a wide range of data sources characterizing future climate conditions and taking into account relevant information on topography and land use and land cover;
- provide a synthesis on potential opportunities for developing and implementing risk management strategies and program(s) through review of key climate resilience strategies, policies and program(s) at national and sector levels;
- in close consultation and coordination with the team leader and other members of the TA team, prepare the climate change assessment for the project;
- contribute to the preparation of all project documents, as necessary; and
- participate in and present findings at consultations and workshops.

13. **Economist (rural development)** (international). The economist will have a graduate degree, preferably a post graduate degree, in economics or a related field, and at least eight years of work experience in economic analyses of ADB- or other multilateral development bank financed projects related to promoting rural development. Experience in Georgia and other countries in Caucasus or Central Asia is preferred. The specialist will (i) conduct the economic analysis for proposed project interventions in line with ADB guidelines, and (ii) provide support for the other team member integrating economic considerations into the project designs. The specialist will have demonstrated ability to work in a multidisciplinary team and will possess excellent communication (written and oral) skills in English. Specific tasks include at least:

- assess the macroeconomic and the sector contexts for promoting rural development in Georgia, with a focus on irrigation, agriculture production and marketing aspects;
- identify and establish economic rationale of the public sector involvement;
- analyze least-cost investment options and undertake economic cost-benefit analysis including the promotion of innovative approaches in proposed investment project;
- Collect and analyze relevant crop production data and development of crop budgets;
- analyze the economic benefits and costs of the investment component, calculate economic metrics (NPV, B/C, EIRR), perform sensitivity and risk analyses in accordance with ADB's *Guidelines for Economic Analysis of Projects and Economics of Climate Change studies*;
- conduct distribution analysis for selected proposed projects and interventions to quantify which beneficiary and stakeholder groups will gain benefits and bear costs and to what extent;

- assist other team members in carrying out all the tasks required to ensure high quality of the project documents; and
- participate in and present findings at consultations and workshops.

14. **Rural development engineer/Deputy team leader** (national). The rural development engineer will preferably have at least a graduate degree related to rural development, engineering, or relevant fields. The specialist will have at least 8 years of professional experience in assessing rural development including rural land use and infrastructure planning. Experience as national deputy team leader in foreign funded project is preferred. The rural development engineer will be responsible that the design criteria for all small-scale rural infrastructure meets national standards, and current best practices in Georgia. Specific tasks include at least:

- support the team leader in all tasks for the implementation of the transaction technical assistance (TRTA);
- maintain close cooperation with the Government counterpart and ensure smooth communications;
- review reports and drawings from previous projects, including concept design and optimization, feasibility, hydrology, hydraulics, and other related studies, and identify the applicability for the project;
- review and, with support from other team members, develop appropriate project procedures for community contracting procedures and procurement;
- discuss and the review and update project design, procurement and construction schedule in consultation with MEPA and Georgian Amelioration;
- assist other team members in carrying out all the tasks required to ensure high quality of the project documents; and
- participate in and present findings at consultations and workshops.

15. In addition to the above required key experts, the proposing entities should also include in their technical proposal, in the personnel work plan and in their financial proposal all other “non-key experts” required in accordance with their proposed approach and methodology. The expertise of the additional staff should, for example, demonstrate that requirements for design of irrigation systems, environmental and social safeguards, including all gender aspects, can be met adequately. The proposing entity must also determine and indicate the number of person-months for which each key or non-key expert will be required. The proposal will specify where the experts will be based together with the expected durations.

c. Duration and location of the assignment

16. The assignment will be implemented over 12 months tentatively from 1 February 2021 to 31 January 2022. The ADB Central and West Asia Department will administer the assignment. The Ministry of Environmental Protection and Agriculture will be the executing agency for the TRTA. Georgian Amelioration will be the implementing agency.

d. Key Deliverables

17. The consultant will provide at least the following key deliverables:

- Draft Inception report (by month 1)
- Final Inception report, addressing ADB’s and Governments comments (by month 2)
- Draft Interim report (month 5)

- Final Interim report, addressing ADB's and Governments comments (by month 6)
- Draft final report (by month 9)
- Final report addressing ADB's and Governments comments (by month 11)

e. Preparation of Proposal

18. The consulting firm will be recruited using the fixed budget selection method, using a full technical proposal according to ADB *Procurement Policy* (2017, as amended from time to time). The main text of the proposal will have a limit of maximum 20 pages.

19. Proposing entities are requested to prepare a detailed description of how they propose to deliver on the outputs of the contract in the section of their proposal called "Approach and Methodology." In this narrative, entities should be explicit in explaining how they will achieve the outputs and include any information on their existing activities upon which they may eventually build as well as the details of what staff will comprise the project team.

20. Entities must also describe their experience in Georgia and their ability to operate in the respective language.

21. Only one curriculum vitae (CV) must be submitted for each key and non-key expert included in the proposal. Only the CVs of key experts will be scored as part of the technical evaluation of proposals. The CVs of non-key experts will not be scored, however ADB will review and individually approve or reject the CV for each non-key expert position in the proposal. The final team composition and inputs of each of the specialists will be finalized with the winning firm during contract negotiations.

2. Individual

a. Objectives of the Assignment

22. The proposed individual assignment will provide support for the MEPA and ADB with the supervision of the consultants and the coordination among all parties.

b. Expertise Required

23. **Rural Development and Project Implementation specialist** (national, 6 pm). The specialist will have at least a graduate degree, preferably a post graduate degree, or equivalent qualification in rural development, economic and/or financial management, or other related fields, and at least 8 years of professional experience, preferably with the preparation or implementation of foreign funded projects. The specialist will have demonstrated ability to work in a multidisciplinary team and will possess communication (written and oral) skills in English. He/she will report to the ADB project officer. Specific tasks include:

- familiarize with the TRTA scope and objectives;
- review project outputs and reports;
- identify requirements for, and arranging, any additional surveys (if required);
- provide innovative ideas/input on rural development, including for climate change adaption and gender equity promotion;
- participate in training workshops and technical discussions with the MEPA, Georgian Amelioration, and other stakeholders;

- contribute to the preparation of final RRP and other project documents; and
- provide other support as reasonably requested by the ADB project officer.

c. Implementation Arrangements

24. ADB will engage and administer the individual consultant contract. The individual consultant will be engaged using the individual consultant selection method.

25. The assignments will be implemented over a period of 16 months tentatively from 15 January 2021 to 14 January 2022. The assignment of the individual expert is intermittent in nature. The terms may be revised based on consultations between the parties involved in the assignment according to changes and or additional requirements identified during implementation.

INITIAL POVERTY AND SOCIAL ANALYSIS

Country:	Georgia	Project Title:	Water Resources Sector Development Program
Lending/Financing Modality:	Sector Development Program	Department/ Division:	Central and West Asia Department / Environment, Natural Resources and Agriculture Diviaion

I. POVERTY IMPACT AND SOCIAL DIMENSIONS

A. Links to the National Poverty Reduction Strategy and Country Partnership Strategy

The proposed project is in line with the Socio-economic Development Strategy of Georgia (Georgia 2020) which, among other issues, sets a high priority on increasing the potential of the country's agricultural sector, expanding agricultural output, and increasing rural incomes.[i] The project also largely meets the objectives of the Irrigation Strategy of Georgia 2017–2025, which focuses on irrigation system rehabilitation, operation, and maintenance and the steps that Georgia intends to take in managing its water resources; modernizing its irrigation systems; and organizing, managing, and funding irrigation services for farmers.[ii] At the same time, the project corresponds to the Strategy for Agriculture Development in Georgia 2015–2020.[iii] One of the strategic directions of thedocument is an improved irrigation and drainage system for better water management and agriculture productivity.

The project resonates with the Asian Development Bank (ADB) country partnership strategy, 2019–2023 for Georgia, which stresses ADB's commitment to support a number of sectors, including water resources management and agriculture, in order to help reduce poverty and strengthen the resilience of infrastructure and agriculture to the impacts of climate change and disasters.

B. Targeting Classification

☒General Intervention ☐Individual or Household (TI-H) ☐Geographic (TI-G) ☐Non-Income MDGs (TI-M1, M2, etc.)

The project will address the causes of low agricultural productivity resulting from the poor condition of irrigation infrastructure, the outdated legal and institutional framework, weak capacity in management of irrigation systems, and less effective production systems and practices. It will introduce institutional, financial, and management reforms in water resource management and irrigation, as well as support modernization of the irrigation schemes and innovative production systems in agriculture. These will contribute to increased agricultural production, improved incomes for female and male farmers, and better access to water for agriculture needs. When women are included, capacity building for farmers may contribute to their economic empowerment and participation of women in decision-making in production and farm management.

C. Poverty and Social Analysis

1. Key issues and potential beneficiaries. Georgia ranks 70th out of 189 countries and territories according to the Human Development Index.[iv] While Georgia has undertaken a number of reforms, about one-fifth of the population lives below the poverty line, and the unemployment rate is 11.6%.[v] Most of the poverty is concentrated in the rural areas, where 41% of the population lives. Possible reasons for poverty in Georgia include lack of economic opportunities and formal employment, lack of skills, and limited access to resources, especially in the rural areas of the country. Because of the coronavirus disease (COVID-19) pandemic, global and national economic progress have been put at risk. Safeguarding national food security is also a serious challenge. The government policies play a significant role in stabilizing the economy, promoting food security, and protecting the most vulnerable in the face of COVID-19 threats.

Agriculture is an important sector in terms of employment in Georgia, however, poor condition of irrigation systems and unreliable irrigation service hamper productivity and growth in the agriculture sector and rural development. As of 2015, approximately 112,000 hectares (ha) were irrigated in the country, 43,000 ha of which were in eastern Georgia, and the government plans to increase irrigation capacity up to 200,000 ha by 2025. Improved irrigation will help facilitate economic growth because Georgia has favorable natural conditions and climate for agriculture development. Women playan important role in agriculture production, mostly through informal engagement in the sector, and they have limited knowledge and access to resources. Overall, the project will contribute to reducing rural poverty and improving food security.

2. Impact channels and expected systemic changes. The project will support the Ministry of Environmental Protection and Agriculture (MEPA) to strengthen its institutional arrangements, governance, capacity, financial management, and policies to manage the agriculture sector to increase the sector's contribution to the economy and development objectives of Georgia. The investment will also support the modernization of outdated irrigation and introduce innovative production systems through support of farmers and framer organizations.

3. Focus of (and resources allocated in) the transaction technical assistance (TA) or due diligence. The project management consultants will include social development and gender specialists who will review poverty and social

aspects of the project and ensure these are addressed in the project design. Consultations will include stakeholder participation and consultations with civil society groups and with farmers (both women and men) to gain greater understanding of the impacts of the investment project. Project preparation will ensure that design features consider the needs of women and men and of other vulnerable groups like the elderly and people with disabilities.

4. Specific analysis for policy-based lending. Irrigation management on the national level has been operated under different forms since 1992. The government's main policy objectives are to improve the governance and management of irrigation and water resources and improve infrastructure, which cannot be achieved without institutional, financial, and management reforms and investment in improvements. These issues have to be examined during the project design for developing gender-sensitive policies and for improving the infrastructure that benefits all.

II. GENDER AND DEVELOPMENT

1. What are the key gender issues in the sector/subsector that are likely to be relevant to this project or program?

The 2020 Global Gender Gap Report ranks Georgia 74th out of 153 countries.[vi] Despite a number of policy reforms undertaken for promoting gender equality, agriculture and irrigation still lack gender-sensitive approaches. In terms of economic activity, the employment rate of women is 47% compared to 63% for men and women are mostly concentrated in the traditional sectors of the economy in lower paid jobs and positions,[vii] and a gender gap persists in the earnings of women and men across sectors, including agriculture, fisheries, and forestry.

There is a gender gap in the ownership of land and in farm management. Men own 62% of agricultural land and women own 37%.[viii] This limits women's access to financial resources. Because of lack of land ownership, women cannot participate in agricultural funding schemes and may not always be eligible for loans. Studies also show that women's access to technology and machinery in the rural areas is low. At the same time, women involved in agriculture work are perceived more as helpers rather than managers. Aside from agriculture work, women are also primarily responsible for domestic and care work. Poor rural infrastructure and limited access to transport also have a direct impact on women's engagement in the sector. In addition, women's access to knowledge and technologies is much lower than that of men.[ix] These contribute to low participation of women in formal irrigation management schemes.

2. Does the proposed project or program have the potential to make a contribution to the promotion of gender equity and/or empowerment of women by providing women's access to and use of opportunities, services, resources, assets, and participation in decision-making? ☒ Yes ☐ No

The proposed project has a large potential to make a contribution to the promotion of gender equality. Policies can be improved to better document and consider women's needs and involve women in decision-making. Women's participation in capacity development activities on the use of innovative farming technologies will lead to better opportunities for female farmers to improve their participation in farm management, intensify their production, and increase their incomes. Other opportunities that can bring benefits specifically to women will be examined during the transaction TA and will be included in the design.

3. Could the proposed project have an adverse impact on women and/or girls or widen gender inequality? ☐ Yes ☒ No

4. Indicate the intended gender mainstreaming category:

☐ GEN (gender equity theme) ☒ EGM (effective gender mainstreaming)
☐ SGE (some gender elements) ☐ NGE (no gender elements)

III. PARTICIPATION AND EMPOWERMENT

1. Who are the main stakeholders of the project, including beneficiaries and negatively affected people? Identify how they will participate in the project design.

The main stakeholders of the project are (i) government institutions, in particular the Ministry of Environmental Protection and Agriculture and its relevant entities; and (ii) farmers and farmer organizations, including femaile and male members. In addition, civil society groups and female and male members of community-based organizations will be consulted at the project design/preparation level.

2. How can the project contribute (in a systemic way) to engaging and empowering stakeholders and beneficiaries, particularly, the poor, vulnerable, and excluded groups? What issues in the project design require participation of the poor and excluded?

The project has room for stakeholder engagement, including government and nongovernment actors, which will be examined during the project preparation through information sharing and consultations. Capacity development to be designed for farmers will introduce them to modern and innovative agricultural technologies and practices.

3. What are the key, active, and relevant civil society organizations in the project area? What is the level of civil society organization participation in the project design?

Civil society is active in Georgia. Active civil society and non-governmental organizations, including those working on gender issues, will be identified and engaged in the consultative process. ☒ Information generation and sharing ☒ Consultation ☐ Collaboration ☐ Partnership

4. Are there issues during project design for which participation of the poor and excluded is important? What are they and how shall they be addressed? ☐ Yes ☒ No

IV. SOCIAL SAFEGUARDS
A. Involuntary Resettlement Category ☐ A ☒ B ☐ C ☐ FI
1. Does the project have the potential to involve involuntary land acquisition resulting in physical and economic displacement? ☒ Yes ☐ No Involuntary land acquisition resulting in physical and economic displacement is expected to be minimal. The project mainly involves modernization of existing structures. 2. What action plan is required to address involuntary resettlement as part of the transaction TA or due diligence process? ☒ Resettlement plan ☐ Resettlement framework ☐ Social impact matrix ☒ Environmental and social management system arrangement ☒ None
B. Indigenous Peoples Category ☐ A ☐ B ☒ C ☐ FI
1. Does the proposed project have the potential to directly or indirectly affect the dignity, human rights, livelihood systems, or culture of indigenous peoples? ☐ Yes ☒ No 2. Does it affect the territories or natural and cultural resources indigenous peoples own, use, occupy, or claim, as their ancestral domain? ☐ Yes ☒ No 3. Will the project require broad community support of affected indigenous communities? ☐ Yes ☒ No 4. What action plan is required to address risks to indigenous peoples as part of the project preparatory TA or due diligence process? ☐ Indigenous peoples plan ☐ Indigenous peoples planning framework ☐ Social Impact matrix ☐ Environmental and social management system arrangement ☒ None
V. OTHER SOCIAL ISSUES AND RISKS
1. What other social issues and risks should be considered in the project design? ☒ (L) Creating decent jobs and employment ☐ (L) Adhering to core labor standards ☐ Labor retrenchment ☐ (L) Spread of communicable diseases, including HIV/AIDS ☐ Increase in human trafficking ☐ Affordability ☐ Increase in unplanned migration ☐ Increase in vulnerability to natural disasters ☐ Creating political instability ☐ Creating internal social conflicts ☐ Others, please specify _____ 2. How are these additional social issues and risks going to be addressed in the project design? The implementing agencies will assess the social issues and risks of the project during project preparation.
VI. TRANSACTION TECHNICAL ASSISTANCE OR DUE DILIGENCE RESOURCE REQUIREMENT
1. Do the terms of reference for the transaction TA (or other due diligence) contain key information needed to be gathered during the transaction TA or due diligence process to better analyze (i) the poverty and social impact, (ii) gender impact, (iii) participation dimensions, (iv) social safeguards, and (vi) other social risks. Are the relevant specialists identified? ☒ Yes ☐ No
2. What resources (e.g., consultants, survey budget, and workshop) are allocated for conducting poverty, social and/or gender analysis, and participation plan during the transaction TA or due diligence? Social development and gender experts will be mobilized during project preparation to identify key social, poverty and gender issues and necessary interventions.

[i] Government of Georgia. 2014. *Socio-economic Development Strategy of Georgia (Georgia 2020)*. Tbilisi.
[ii] Government of Georgia. 2017. *Irrigation Strategy for Georgia 2017–2025*. Tbilisi.
[iii] Government of Georgia. 2015. *Strategy for Agriculture Development in Georgia 2015–2020*. Tbilisi.
[iv] United Nations Development Programme. 2019. *Human Development Report*. New York. http://hdr.undp.org/en/countries/profiles/GEO. Accessed on 22 June 2020.
[v] National Statistics Office of Georgia. 2019. *Statistics on Living Conditions.*Tbilisi. https://www.geostat.ge/en/modules/categories/192/living-conditions. Accessed 22 June 2020.
[vi] World Economic Forum. 2019. *Global Gender Gap Report 2020*. Geneva. http://www3.weforum.org/docs/WEF_GGGR_2020.pdf. Accessed on 22 June 2020.
[vii] National Statistics Office of Georgia. 2019. *Women and Men in Georgia*. Tbilisi. https://www.geostat.ge/en/single-archive/3332. Accessed on 22 June 2020.
[viii] National Statistics Office of Georgia. 2018. *Pilot Survey on Measuring Asset Ownership and Entrepreneurship from a Gender Perspective*. Tbilisi. https://www.geostat.ge/media/21027/EDGE-Report-ENG-Final.pdf. Accessed on 22 June 2020.
[ix] Food and Agriculture Organization. 2018. *Gender, Agriculture, and Rural Development in Georgia*. Rome.
Source: Asian Developpment Bank.