**Ministry of Environmental Protection and Agriculture of Georgia**

**World Bank/Government financed Georgia Resilient Agriculture, Irrigation, And Land Project (GRAIL)**

**Terms of Reference**

Capacity Building Service Provider (CBSP) to Support Training and Demonstration Plots on crops production productivity increase, irrigation technologies for efficient water use and Climate Smart Agriculture (CSA Practices and Technologies for Smallholder Farmers cultivating in the Zeda Ru Irrigation Scheme, Shida Kartli region)

## **PROJECT BACKGROUND**

**Georgia Resilient Agriculture, Irrigation and Land Project (GRAIL)** is a 138.6 mln EURO project financed by the Government of Georgia and the International Bank for Reconstruction and Development.

**The Project Development Objective (PDO)** of the project is to: (a) improve irrigation, and drainage services, and agricultural production in project areas, and (b) strengthen national irrigation and land management institutional capacity for climate-resilient planning. The primary project beneficiaries comprise farmers and agricultural enterprises across the project targeted regions. Overall, the rural population will benefit from enhanced services provided by land management, irrigation services, and agricultural support. In the public sector, the project will support institutional strengthening of Ministry of Environmental Protection and Agriculture (MEPA), including Georgian Amelioration (GA), Rural Development Agency (RDA) and Land Management Agency (LMA). The Project consists of the following two main components: **Component 1.** **Resilient Irrigated Agriculture** and **Component 2:** **Improved Land Management Capacity**.

**Component 1.** **Resilient Irrigated Agriculture**. This component encompasses the implementation of high-priority investments in I&D infrastructure, agriculture support, and institutional strengthening for national irrigation and rural development agencies. The component will support the rehabilitation/modernization of main, secondary, and tertiary canals and drains. These investments will enhance the reliability of the water supply for irrigation to reduce risks from climate-induced precipitation variability. The agriculture investments (**under Sub-component 1.2**) will: (i) provide farmers and agribusinesses with access to matching grants, training, and knowledge on market aspects, to enhance the viability, capacity and competitiveness of the farm enterprise and agribusinesses; and (ii) implement a capacity building program at Rural Development Agency which will administer the matching grants program. The project will promote Climate Smart Agriculture (CSA[[1]](#footnote-1)) technologies (for example, crop varieties adapted to crop water stress, on-farm water-saving techniques and technologies) that enhance farm-level productivity and promote agronomic practices that generate adaptation and mitigation benefits for smallholder farmers in water-stressed areas.

**Subcomponent 1.2: Irrigated agriculture and value chain development** will: (i) provide farmers, in areas where irrigation schemes will be modernized, with access to matching grants, training, and knowledge on market aspects; (ii) provide agribusinesses (including agro-processors, cold chain operators, farm input suppliers, and commercial plant nurseries), in areas where irrigation schemes will be modernized, with financial support through matching grants to enhance their capacity and competitiveness; and (iii) implement a capacity building program at RDA and its agriculture extension service operated by a network of Information Consultation Centers (ICCs) at the municipal level. RDA will administer the matching grants program.

***Matching grants for primary producers.*** The matching grants are designed to finance farm-level capital investments in equipment and CSA technologies, including on-farm irrigation systems (sprinklers, drip irrigation, fertigation, and water filtering components), greenhouses and polytunnels, renewable energy equipment (solar panels up to 5 KW), and CSA agricultural machinery (chisel plows, mulch layers, in-row cultivators, and agricultural meteorological stations). The Matching Grant Manual outlines full implementation details, including eligibility criteria such as minimum farm size for each grant activity, requirement for the potential beneficiary to be a registered landowner or tenant, the requirement to obtain a water delivery contract with Georgian Amelioration, and other criteria. The grant amount will range from 40% to 50% of the total investment, with maximum grant amount for each grant activity. Grants are determined based on specific investments and factors such as youth status and WUO membership, with beneficiaries required to contribute the remaining portion of the investment either in cash or through a bank loan. While the maximum grant amount remains fixed, the grant share increases by 5% for youth (men up to 35 years old and women up to 40 years old) and by 10% for Water Users Organization members, with additional grant percentages not being cumulative if a youth is also a WUO member. Training and outreach programs, including demonstration plots on selected beneficiary farms, will introduce and showcase new technologies and practices to farmers.

Matching grant modalities, based on which an announcement and awareness campaign among targeted beneficiaries will be launched based on the agreed matching grant mechanisms. In the initial phase, the project targets the Zeda Ru and Kvemo Samgori (Section G1-G32) irrigation schemes to implement the Matching Grant Program of 1.2 Subcomponent. These areas were specifically selected as the infrastructure rehabilitation, including main, secondary, and tertiary canals in these schemes was completed under the Georgian Irrigation and Land Market Development Project (GILMDP) funded by the World Bank.

The Capacity Building Service Provider (hereinafter referred to as the “Consultant”), shall have a strong background in climate-resilient crop species and varieties, Climate-Smart Agriculture (CSA) technologies and practices that enhance farm-level productivity and generate climate adaptation and mitigation benefits in the Georgian context, who is contracted to support project beneficiaries in the adoption of climate smart agriculture technologies for selected value chains and increased productivity in diverse crops production.

**TASKS AND METHODOLOGY**

* **The consultant shall focus on the 10 villages involved in Zeda Ru command area, as detailed below:**

| **Project Treatment Areas** | | | | |
| --- | --- | --- | --- | --- |
| **Irrigation Scheme** | **Region** | **Municipalities** | **Villages** | |
| Zeda Ru Scheme | Shida Kartli | Gori, Kareli | **Gori municipality:**   1. Kvemo Niqozi 2. Pkhvenisi 3. Shindisi 4. Saqasheti 5. Variani farm 6. Arashenda | **Kareli municipality:**   1. Breti farm 2. Sasireti 3. Ruisi 4. Urbnisi |

* **The consultant's priority is to develop training curricula and demonstration methodologies for the smallholder farmers who are cultivating land in the command area of Zeda Ru irrigation scheme. This encompasses:**
  + **Production of crops, including, but not limited to:**
    - Production of fruits, vegetables, berries, grapes, and nuts (almonds and walnuts); Cultivation of grains, particularly maize;
    - Production of forage crops, such as alfalfa and grass;
    - Strawberry production in open fields;
    - Cultivation of crops in greenhouse environments; Temperature and Humidity control in Greenhouses.
  + **Adoption of Climate-Smart Agriculture practices and technologies, including but not limited to:**
    - Design, implementation and maintenance of irrigation systems such as drip irrigation, fertigation, and controlling systems; Sprinkler irrigation systems and drip irrigation cleaning equipment;
    - Use of mulching technologies in open air and greenhouse environments;
    - Pest management strategies;
    - Irrigation, production and conservation of nutritive animal feed crops (e.g., alfalfa, maize silage)
    - Good land preparation techniques (including bed-raising when relevant);
    - Preparation of healthy seedlings;
    - Use of correct plant density, distance between rows;
    - Proper plant nutrition- based on scientific methods, environmental considerations and on soil analysis;
    - Best pruning practices;
    - Composting, when relevant;
    - Etc.
  + **Postharvest handling:** Determination of the maturity condition of fruits and vegetables, harvesting practices, storing condition, grading, sorting and packaging, branding and marketing.
    - Management of drying facilities, utilizing infrared, sun, and heated driers.
    - Operation of cold storage facilities and establishment of sorting and packing infrastructure.
  + **Utilization and efficiency:** 
    - Utilization of Small Agricultural Implements, Machinery, and Equipment, including ridgers, two-wheel tractors - Motoblocks, hay tedders, portable bale makers, tree branch crushers/grinders, grass mowers, and manure spreaders, among others.
    - On-farm use of renewable energy sources, such as solar panels up to 5KW, small hydro-stations, and small windmills.
* **The consultant shall ensure that the selection of demonstration plots adheres to the following criteria:**
  + **Proximity:** It is essential to ensure that demonstration plots are located close to neighboring farmers to facilitate easy, frequent, and sustained participation.
  + **Diversity:** Demonstrations shall showcase a wide range of Climate-Smart Agriculture (CSA) technologies and practices to provide farmers with a comprehensive understanding of available options.
  + **Host Selection:** The choice of host demo farmers shall not solely be based on their technical capacity and successful implementation of CSA technologies and practices. Additionally, their willingness to receive visiting farmers, host training sessions, share their experiences, and enjoy positive recognition within the neighboring farmer community shall be considered.
    - In certain instances where lead farmers are adequately equipped, the establishment of a full-fledged demonstration plot may not be necessary. In such cases, the consultant shall propose a range of incentive options for the demo host farmer. These proposals shall undergo thorough discussion and approval by the project team to ensure their adequacy, effectiveness and good value for money.
    - Moreover, when the project necessitates the provision of equipment to the demo farmer, the budget allocated shall be both reasonable and replicable, facilitating its adoption by other farmers within the community.
  + **Training sessions:** The training curriculum shall encompass the entire crop calendar, extending from pre-planting preparations to post-harvest handling and harvest marketing/selling strategies. The number of sessions may vary depending on the crop type, ranging from 3 to 4 sessions for annual crops and 4 to 5 sessions for perennial crops. The overarching goal is to ensure that each farmer group participates in and completes all scheduled sessions, thereby maximizing their understanding and application of the material presented. Simultaneously, the Monitoring and Evaluation (M&E) system must ensure that there is no duplication of records when documenting the beneficiaries of the training sessions
  + **Identifying value chains to be supported:** In close collaboration with the PIU Agriculture Specialist, the consultant is assigned to identify the value chains that are the most engaged with/demanded by the smallholder farmers in the target area, while presenting at the same time the best prospects to increase the income of smallholders significantly. Following this, the consultant shall craft a strategic plan for establishing demonstration plots customized to each identified value chain.
* **The consultant shall promote Gender Equity in Agricultural Capacity Building Initiatives in Target Areas: Considerations for Inclusive Training, Coaching, and Monitoring:**
  + **Integration of Gender-Sensitive Training Content:** The consultant shall develop training sessions tailored to address the specific needs of male and female farmers, as well as RDA’s Regional Information Consultation Centers (ICC) as part of the capacity-building activities for the Agency, recognizing their distinct roles in agriculture and the challenges they face. Topics to be focused on and addressed concerning women's issues include e.g., women's land rights, access to finance, and the adoption of labor-saving technologies, other important issues for female.
  + **Emphasis on Gender Diversity in CSA training:** In the selection of trainers, the consultant shall prioritize gender diversity by ensuring the recruitment of female trainers. This approach aims to cultivate a more inclusive environment and provide additional support to female grant beneficiaries.
  + **Gender-Disaggregated Monitoring and Evaluation (M&E):** The consultant shall work closely with the program's Monitoring and Evaluation (M&E) specialist to develop and implement an M&E system capable of collecting and analyzing data separately for men and women. This gender-disaggregated data will provide valuable insights into the project's impact on gender dynamics, enabling informed adjustments to strategies and interventions as needed.
  + **Equitable Incentives for Women's Participation:** The consultant shall design incentives for demo host farmers that equally benefit women, taking into account their unique needs and constraints. This approach ensures promotion of gender equity in project participation.
  + **Promotion of Female Lead Farmers:** The consultant shall actively promote the inclusion of successful female lead farmers in demonstration activities, serving as role models for other women and fostering empowerment within their communities.
  + **Gender-Focused Capacity Building for Service Providers:** The consultant shall ensure that Capacity Building Service Provider teams have received training on gender issues and are equipped to deliver gender-sensitive training to targeted farmers.
* **Other specific requirements:**
  + The consultant shall select and establish 15 demonstration plots (DP). CBSP will enter into agreements with lead farmers or demo-plot owners, recording/specifying commitments and obligations of demo-plot owners to maintain operational demo plot and host farmers/agro enterprises. DPs shall be operational and available to the GRAIL Project:
  + at least for 3 years, if the new full-fledge DPs are established from scratch by support of GRAIL Project or when the project necessitates the provision of equipment to the existing lead demo farmer (Establishment of the Demo Plots shall be discussed and agreed with the Client)
  + till the end of the CBSP contract, If the selection and establishment of demonstration plots involves existing lead farmers’ farms.

This timeline ensures the longevity and sustainability of the demonstration plots, providing a consistent resource for the GRAIL Project for its participants’ capacity building.

* + Demonstration plots shall be chosen from the target command areas of Zeda Ru irrigation scheme. While adjacent areas may be also considered, but strong preference shall be given to the proximity of the demonstration plots to the farmers in the targeted command area.
  + The consultant shall be assigned the responsibility of compiling a thorough inventory of supplementary inputs, equipment, and materials essential for the functioning of the diverse demo-plots. This inventory, inclusive of the precise specifications for the requisite equipment and materials, shall be formulated through collaborative efforts with the GRAIL project team. All expenses related to procurement shall be funded by the project. In case of establishing the demonstration plots the required equipment, materials, and other inputs shall be procured by the service provider. The cost of the purchased items will be reimbursed to the Consultant subject to submission the supporting documentation. The specific inventory of inputs, equipment, and materials required for each individual demo-plot shall be determined based on the outcomes of the selection process and the quantity of demo-plots slated for equipping, with further elaboration to be provided at a subsequent stage.
  + Equipment and materials procured by the Consultant for demonstration plots will be formally transferred to the proprietors of the demonstration plots before conclusion of the consulting assignment. This transfer process shall be executed following mutual consent and shall be duly documented through the agreement with the proprietors of the demonstration plots and Delivery-Acceptance Acts. The Consultant will discuss the applicable procurement methods/approach with the procurement personnel of the PIU. The procurement of goods for demonstration plots is expected to compose up to 25% of the proposed budget for the consultancy service contract.
  + The consultant shall lead the development of a comprehensive training curriculum aimed at training a minimum of 600 farmers distributed among the 15 designated demonstration plots. The consultant shall furnish a proposed timetable for the submission of training materials, with particular emphasis placed on ensuring that these materials are synchronized with the initial stages of demo plot establishment.
  + Moreover, the consultant shall include in its training sessions to farmers the local representatives of Information Consulting Centers (ICCs) of RDA situated within the specified target area related Municipalities (Gori and Kareli), with the objective of educating a minimum of 8 personnel.
  + It is of utmost importance that the Consultant prioritizes the inclusion of Female Farmers, ensuring that they constitute at least 25% of the beneficiaries.
  + Each farmer's group would consist of a minimum of 10 participants, with a maximum limit of 25 farmers per visit.
  + The consultant shall explore alternative approaches to involve farmers and enhance their proficiency in Climate-Smart Agriculture (CSA). This may involve strategies like widespread distribution of printed training materials in an accessible format, organizing exchange visits, among others. In this context, the consultant is responsible for elaborating and proposing additional dissemination methods for farmers, beyond solely relying on training sessions conducted on Demo Plots.
  + The Consultant shall Geo-reference all DPs and to produce a comprehensive map delineating their precise locations, accompanied by a detailed report documenting all beneficiaries who have participated in the training sessions.
  + The consultant shall develop agronomic support materials for the demonstration trainings, including stationery for facilitating effective instructional sessions
  + The consultant shall propose a detailed methodology for selecting demonstration Plots. Ultimately, the consultant shall compile and publish a manual encompassing case studies that exemplify best practices in climate-resilient crop production within the context of target area of Zeda Ru and nearby.

## ACTIVITIES TO BE UNDERTAKEN

The Consultant, shall undertake the following activities:

* Selection of crop varieties exhibiting strong smallholder farmers demand, enhanced adaptation potential and higher productivity.
* Developing and refining training curricula, leveraging existing resources where applicable.
* Selecting suitable hosts for demonstration plots’ activities.
* Mobilizing farmers and local RDA ICC staff for participation in the trainings.
* Conducting training sessions to 600 farmers with a high level of care, thoroughness, and effort to ensure effective learning and outcomes for the farmers involved.
* Coordinating exchange visits for knowledge sharing.
* Elaboration and cost-benefit evaluation of proposed agronomic systems customized for each value chain.
* Specification of requisite equipment and inputs for each adaptation technology.
* Formulation of implementation protocols for transitioning from conventional farming methods to climate change-adaptive agricultural systems and technologies.
* Conducting a SWOT analysis encompassing VC stakeholders, project team members and representatives of RDA ICCs to assess their knowledge and capacity in implementing proposed agronomic adaptation strategies.
* Ensuring that ICC staff shall participate in the trainings to be organized by CBSP on demo plots.
* Establishing 15 on-farm demonstration plots, encompassing:
  + Formulation of guiding principles and conceptual frameworks.
  + Assessment of capital and operational expenditures, technical prerequisites, limitations, and associated risks.
  + Selection of existing lead farmers who are already fully equipped, with proposal of modalities to engage with them as demonstration hosts, and/or selection of farmers for the establishment of full-fledged demo plots and procurement of necessary equipment.
  + Facilitation of on-farm information dissemination, planning sessions, and learning events.
  + Provision of technical guidance, participation in meetings, and oversight of implementation and upkeep activities.
* Arranging for evaluation of training/demo plots by beneficiaries.
* Arranging farmer-buyer meetings with existing Agri businesses.
* Generating comprehensive reports delineating the performance and impact of contracted initiatives, with provision for supplementary documentation as required.

Reporting Obligations of CBSP

The Consultant shall submit a detailed **Monthly Progress Report and Timetable of Accomplished Works**[[2]](#footnote-2) acceptable to the 1.2 component coordinator and GRAIL Project Director.

All Reports shall be submitted in both English and Georgian languages accordingly (in hard and soft copies):

1. **Monthly Progress[[3]](#footnote-3) and Inception Reports:** A comprehensive document detailing the project's initial scope, methodology, work plan, and stakeholder engagement strategy, setting the foundation for all subsequent activities and providing a clear roadmap for successful project implementation.
2. **Monthly Progress and Technical Reports:** Technical report describing in detail approach and vision as per scope of work and methodology described above, with geographical mapping in target irrigated area of Zeda Ru irrigation scheme: (i) proposed crop varieties, agronomic systems and technologies to be developed through the demo-plots; (ii) equipment and inputs needed; (iii) implementation procedures; (v) expected economic and environmental benefits; (vi) existing demo plots and others to be developed. The technical report shall also include a detailed work plan of activities envisaged.
3. **Monthly Progress Report on Training program:** (i) development of training packages; (ii) materials produced; (iii) Training and evaluation reports; **Communication, identification and mobilization** of farmers or groups of farmers who may have a particular interest in linking with existing agribusiness operators; and **Quarterly Progress reports[[4]](#footnote-4)** from training activities and field visits supporting the planning, implementation and monitoring of the demonstration plots.
4. **Monthly Report on 15 Demonstration plots implementation**: (i) demonstration design document; (ii) Setting and equipping demo sites; (iii) Start undertaking the training; (iv) Reports from information/learning events; (v) monitoring data; (vi) enquiry reports with feedback from project beneficiaries.
5. **Monthly Progress Report**
6. **Monthly Progress and Quarterly Progress reports** from training activities and field visits supporting the planning, implementation and monitoring of the demonstration plots.
7. **Monthly Progress Report**
8. **Monthly Progress Report**
9. **Monthly and Quarterly Progress Reports** from training activities and field visits supporting the planning, implementation and monitoring of the demonstration plots.
10. **Monthly Progress Report**
11. **Monthly Progress Report**
12. **Monthly and Quarterly Progress Reports** from training activities and field visits supporting the planning, implementation and monitoring of the demonstration plots.
13. **Monthly Progress Report on Climate-smart Agriculture Systems and Technologies for Selected VCs:** published Brochures on Best Practices in Zeda Ru (at least 300 copies in Georgian, Sample in English) covering on-farm irrigation equipment such as sprinklers, drip irrigation systems, fertigation, and water filtration systems; greenhouses and polytunnels; renewable energy generation equipment like solar panels up to 5 KW; and CSA agricultural machinery including chisel plows, mulch layers/removers, in-row cultivators, and agricultural meteorological stations, and other relevant CSA Technologies for command areas.
14. **Monthly Progress and the draft Final Reports** including summarizing the activities implemented, detailing the number of trained beneficiaries, possibly providing information on adoption of the CSA by the trained beneficiaries, and other relevant information which can be useful for assessment of the impact of training and demo plots. The final report shall summarise all activities conducted, overall achievements, problems/difficulties encountered, and corresponding solutions, lessons learned and recommendations for future consideration. The final report shall provide a complete database of conducted activities and beneficiaries reached as per the format and fields requested by the project team. The final report shall also include as annexes all training modules, curriculum and methodology used throughout the contractual period. The specific format and content of reporting shall be elaborated by the consultant in closed consultation with the project team.
15. **Monthly and Quarterly Progress Reports** from training activities and field visits supporting the planning, implementation and monitoring of the demonstration plots; and **Final Report:** Submitted for the final acceptance of the PIU GRAIL Project including summarizing the activities implemented, detailing the number of trained beneficiaries, possibly providing information on adoption of the CSA by the trained beneficiaries, and other relevant information which can be useful for assessment of the impact of training and demo plots. The final report shall summarise all activities conducted, overall achievements, problems/difficulties encountered, and corresponding solutions, lessons learned and recommendations for future consideration. The final report shall provide a complete database of conducted activities and beneficiaries reached as per the format and fields requested by the project team. The final report shall also include as annexes all training modules, curriculum and methodology used throughout the contractual period. The specific format and content of reporting shall be elaborated by the consultant in closed consultation with the project team.

1. The concept of Climate Smart Agriculture seeks to identify technologies and practices that allow increasing production, strengthening resilience to climate change impacts and reducing emissions when possible. CSA technologies include water saving technologies (e.g., drip irrigation), solar powered water pumps, drought tolerant crop varieties, mulching to retain soil moisture, and minimum tillage to preserve soil structure and fertility. [↑](#footnote-ref-1)
2. Along with the monthly report, the Consultant shall provide a **comprehensive timetable** that clearly lists the specific tasks completed, indicating the time spent on each task. This timetable should correspond to the agreed-upon work plan and demonstrate progress in line with the project objectives. [↑](#footnote-ref-2)
3. **Monthly Progress report:** The monthly reports should include, but are not limited to, the following sections: an Executive Summary providing a brief overview of key activities, achievements, and challenges during the reporting period; Progress on Deliverables/Activities detailing progress against the planned activities and deliverables as outlined in the work plan; a Financial Report summarizing any expenditures made (if applicable), aligned with the contract’s budget for equipment or other expenses; and Annexes with supporting documents such as attendance sheets for trainings, photos of field activities, procurement documentation, and other relevant materials. [↑](#footnote-ref-3)
4. **The quarterly report** shall include brief information about conducted activities, achievements and progress in accordance to the work plan and agreed actions, problems/difficulties encountered, and corresponding solutions. In addition, the quarterly report shall include a database on conducted training/capacity-building measures and beneficiaries reached disaggregated by type of activity, gender, location, type of beneficiary etc. as per the format and fields required by the Project team. The specific format and content of reporting shall be elaborated by the consultant in closed consultation with the Project Team. [↑](#footnote-ref-4)