Terms of Reference for Baseline Study for Georgia Resilient Agriculture, Irrigation and Land Project (GRAIL)

I. PROJECT BACKGROUND

1. Georgia Resilient Agriculture, Irrigation and Land Project (GRAIL) is a USD 150 million project financed by the Government of Georgia and the International Bank for Reconstruction and Development.

2. **The Project Development Objective (PDO)** 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.

3. Key results of the project is measured with the following indicators:

    (a) Increase in gross value of agricultural production in project areas.

    (b) Landowners with access to improved irrigation and drainage services (disaggregated by gender).

    (c) Irrigation service delivery performance monitoring and decision support system established and operational in central office and selected service centers of Georgian Amelioration in project areas.

    (d) Hydro-Agro Informatics Center established and operational for real-time monitoring and dissemination of water, land, agriculture, and climate information for water efficient and climate resilient planning.

    (e) Multi-purpose agricultural Land Information System (LIS) operationalized.

4. The Project consists of the following two main components: **Component 1. Resilient Irrigated Agriculture** encompasses the implementation of high-priority investments in irrigation and drainage (I&D) infrastructure, agriculture support, and institutional strengthening for national irrigation and rural development agencies. It finances civil works, goods, equipment, and related services as well as technical training for agency staff and farmers to boost the productivity of irrigated agriculture and **Component 2: Improved Land Management Capacity** encompasses activities aimed at improving national land administration and management systems and facilitating access to and use of geospatial data through development and implementation of a National Spatial Data Infrastructure (NSDI).

5. The **Component 1.** Resilient Irrigated Agriculture consists of three major subcomponents: **Subcomponent 1.1: Irrigation & Drainage Infrastructure Rehabilitation and Modernization** finances rehabilitation and modernization of selected I&D schemes. **Subcomponent 1.2: Irrigated agriculture and value chain development** provides primary producers (farmers) and agribusinesses (including agro-processors, cold chain operators, farm input suppliers, and commercial plant nurseries) in areas where irrigation schemes will be modernized, with access to matching grants, training, and knowledge on market aspects, including compliance with international food safety and other market standards, and other factors to enhance the viability, capacity, and competitiveness. In addition, it encompasses a capacity-building program at RDA and its agriculture extension service operated by a network of Information Consultation Centers (ICCs) at the municipal level. **Subcomponent 1.3: Improved Performance of Irrigation Service Delivery.** This subcomponent aims to achieve operational and financial sustainability through reform of the institutional environment for OMM of irrigation. The main activities under this subcomponent focus on the comprehensive reform of GA with a focus on the redefinition and decentralization of functions to the lowest practical level.

6. **Component 2:** Improved Land Management Capacity consists of two major subcomponents: **Subcomponent 2.1: Strengthening of agricultural land management and monitoring** to support the creation of a solid foundation for improved land management and agricultural land market development, and land use efficiency. **Subcomponent 2.2: Enhancement of the land administration service delivery** and building digital governance finances enhancement of the NAPR IPRS and operationalization of the NSDI.

7. The project targets the following five short-listed schemes: (a) Tashiskari and (b) Tiriponi schemes in Shida Kartli region, (c) Zeda Arkhi scheme in Kvemo Kartli region, (d) Zemo Alazani scheme in Kakheti region, and (e) Narekvavi scheme in Mtskheta-Mtianeti region located in Eastern Georgia. The shortlist also includes a drainage scheme (Shavgele Massif in Samegrelo-Zemo Svaneti region) in Western Georgia and a part of Kvemo Samgori Scheme (G33 and G33-1).

8. The total command area of the I&D systems under consideration is **26,887 selected** based on hydrological, technical, economic, and agricultural parameters. Direct project beneficiaries of the project, defined as landowners across all short-listed schemes, equal to **36,377** with 95 percent of beneficiaries across schemes designated as smallholders (farm plots of less than 1 ha). Please see Table 1 below for the details of beneficiaries and area considered under the Project.

9. In addition, within the framework of Subcomponents 1.2 (irrigated agriculture and value chain development) and Subcomponent 1.3 (WUO establishment and water management work), the project will target Zeda Ru and Kvemo Samgori Right Magistral schemes.

These areas were previously part of the GILMDP project implemented by MEPA with World Bank funding, which involved the rehabilitation of main, secondary, and tertiary canals.

Table 1. Beneficiaries and area by targeted schemes

Short-listed Scheme	Region	Municipality	Total Number of Landowners	Number of Female Landowners	Landowners with Less Than 1 ha (% out of total)	Area Considered under the Project (ha
Tashiskari	Shida Kartli	Borjomi and Khashuri	9,501	4,614	95	12,615
Tiriponi	Shida Kartli	Gori	20,124	9,488	96	5,210
Zeda Arkhi	Kvemo Kartli	Bolnisi	1,326	371	87	1,490
Zemo Alazani (sum of all secondaries)	Kakheti	Telavi and Akhmeta	4,345	1,751	92	6,110
Narekavi irrigation scheme	Mtskheta-Mtianeti	Dusheti and Mtskheta	464	222	98	655
Shavgele Drainage	Samegrelo	Lanchkhuti and Zugdidi	617	265	97	807
Total			**36,377**	**16,711**	**Total Average 95**	**26,887**

10. The project is implemented by the Project Implementation Unit (PIU) within the Ministry of Environmental Protection and Agriculture, except Subcomponent 2.2. Enhancement of the land administration service delivery and building digital governance infrastructure implemented by the National Agency for Public Registry within the Ministry of Justice of Georgia.

II. PROJECT MONITORING AND EVALUATION

11. The project M&E system aims to determine to what extent the project is achieving its development objectives and measures input, output, and outcome indicators to provide the stakeholders with regular information on project implementation and performance. A set of indicators has been prepared for the project that captures the implementation and results of the project's rehabilitation, agriculture development, and institutional building activities (Annex 1 – GRAIL Results Framework). These indicators allow the Project to track the changes in agricultural productivity, yields and cropping patterns, and overall well-being

of the targeted population throughout implementation rehabilitation works and other envisaged agriculture support and land management activities in the project areas.

12. The M&E system shall be supported with surveys to determine the existing pre-intervention conditions in the targeted areas at the initial phase, track change dynamics, and assess and identify the change induced by the project as a result of project interventions. The changes at the outcome and impact levels are being measured through baseline, mid-term, and end-line surveys. Initially, the baseline study shall be conducted to determine the existing pre-intervention conditions in the project areas. Mid-term and end-of-project studies shall be undertaken to assess the dynamics of change and the impact of the project on irrigation services and agricultural productivity.

III. OBJECTIVES OF THE BASELINE STUDY

13. The current Terms of Reference (ToR) is prepared for administering (i) a baseline study for **Component 1. Resilient Irrigated Agriculture** and **Component 2: Improved Land Management Capacity** 2 (excluding Subcomponent *2.2*); and (ii) collection of data for analysis of the ability to pay for irrigation services.

14. ***Baseline survey.*** The primary objective of the <u>baseline study</u> is to determine the pre-intervention conditions in the project area. This should allow us to assess the change dynamics and impact brought by the project through envisaged activities including rehabilitation, agricultural support, institutional strengthening, and improved land management.

15. The project became effective in June 2023 and intends to enter the implementation phase by initiating rehabilitation activities in the three selected schemes Shavgele, Narekvavi and Kvemo Samgori (G33 and G33-1). Therefore, a baseline study at this stage shall be implemented in the areas served by the Shavgele Massif in the Samegrelo-Zemo Svaneti region, Narekvavi in Mtskheta-Mtianeti and G-33 and G33-1 channels in Kvemo Samgori, Kakheti region. *This will be Phase 1 of the baseline survey assignment.* In Phase 2 of the assignment, once the other short-listed schemes are selected for modernization, the baseline survey will be repeated in the designated areas.

16. The specific objectives of the baseline survey are:

   ❖ To determine water users with full, limited, and no irrigation and drainage services (number and percentage), including the number of female users.
   ❖ To determine the current agricultural productivity level (in GEL/ha) across different crops in targeted areas in treatment and control areas disaggregated by the irrigated and non-irrigated zones.
   ❖ To determine current crop patterns in treatment and control villages, (disaggregated by the irrigated and non-irrigated zones)

- ❖ To determine current yields for different crops in treatment and control areas in irrigated and non-irrigated zones.
- ❖ To determine the marketed output of farmers and agribusinesses, disaggregated by beneficiaries of grant support programs of RDA or other irrigation and extension services support program, and those who have not benefited from any of the above
- ❖ To assess farmers' readiness to change crop patterns and shift to higher-value commercial crops as a result of project intervention and improved irrigation water supply.
- ❖ To identify current irrigation practices and how they match with the crop's irrigation norms.
- ❖ To assess the existing use of different irrigation techniques, including drip irrigation, sprinklers, and others in the project area, and the conditions under which farmers are ready to introduce modern irrigation techniques.
- ❖ To assess the extent of spatial or GIS data utilization in agricultural practices
- ❖ To identify the external services and capacity-building measures utilized by farmers and assess their satisfaction levels.
- ❖ To assess the farmers' willingness to get organized to jointly operate their on-farm irrigation schemes.
- ❖ To assess the water fee rate farmers are pay and are ready to pay if water is supplied according to crop irrigation norms.
- ❖ To assess existing mechanisms for the maintenance of irrigation schemes
- ❖ To collect data for farmers' ability to pay analysis.
- ❖ To assess Customer satisfaction with the quality of current irrigation services disaggregated by gender and geographical area

17. ***Data for the ability to pay analysis***. The second objective of the assignment is to collect data that can be used in a detailed analysis of irrigating farmers' ability to pay for irrigation services. The ability to pay analysis will assess the farming profits in relation to the costs of providing irrigation services, including consideration of different farming types, livelihoods, and Georgian poverty limits. This assessment is important in determining the level of any subsidies that might be needed to allow the service provider to cover its costs. The analysis associated with this assessment shall be done externally, using cleaned and consolidated data collected and provided by the baseline study Consultant.

18. The Ability to Pay analysis shall be conducted in two phases. In Phase 1, primary data necessary for the analysis shall be collected from Narekvavi in Mtskheta-Mtianeti. This shall involve integrating specific questions, identified and prepared by an Ability to Pay consultant into the overall baseline questionnaires. Phase 2 is described in para 20 below.

19. Within the previous ILDMP project (Funded by WB and implemented by MEPA), an Ability to Pay analysis was conducted in Kvemo Samgori (G1-G32, G33-1[1]) and Zeda Ru as part of a baseline study in 2017. Since then, questions aimed at assessing the ability to pay have been incorporated into all subsequent studies managed by the project, especially during the mid-line (2020) and end-line (2023) studies. If the data from these studies are

found to be insufficient for the Ability to Pay analysis, a new supplemental survey focusing exclusively on the Ability to Pay, shall be administered in Kvemo Samgori and Zeda Ru areas based on questions prepared by the consultant.

20. In Phase 2, once the final list of the irrigation schemes for the project support is ready and agreed upon, the baseline study incorporating Ability to Pay questions shall be conducted in selected schemes. The PIU will provide the necessary data for this analysis at a later stage. A MEPA/PIU-hired consultant shall prepare the relevant questions for the Ability to Pay analysis, which shall then be incorporated into the household survey questionnaire.

IV. SAMPLING and SCOPE OF WORK

21. **The baseline study should target the following two different types of sampled settlement groups:**

22. *Treatment group* comprising of villages and irrigable/irrigate areas that are targeted from the project, directly benefit from project intervention and are within the project scheme area.

   - Treatment villages identified by Georgian Amelioration (GA) for Shavgele Massif in the Samegrelo-Zemo Svaneti region are: Villages Shavgele and Patara Poti; Treatment villages for arekvavi in Mtskheta-Mtianet regions are: Mchadijvari, lamovani, tsikhedavi, Dzalisi, Mukhrani, Chardakhi, Gorovani, Tserovani, Kanda, Patara Kanda
   - Treatment villages in G33-G33-1 in Kvemo Samgori are: Duzagrama, Paldo, Iormuganlo, Tsitsmatiani, Lambalo, Tulari and Kazlari. In the previous project, the Georgian Irrigation and Land Market Development Project (GILMDP), implemented by MEPA, the Project Implementation Unit (PIU) conducted an end-line survey/ Specifically in KS G33 and G33-1the end-line study interviewed around 50 respondents. For the current baseline study, an additional set of respondents is required to supplement the initial 50 interviews to ensure a representative sample. However, if this is not feasible due to the justified reasons, the Consultant company is expected to conduct a full-scale representative survey in this area.

23. *Control group* comprising of villages in irrigable/irrigated/drainage areas that do not benefit from the project intervention and where no irrigation, no infrastructure project is planned to be implemented in the nearest future by GA or other donors and are outside the project scheme area. Control villages from Shavgele Massif and Narekvavi should be identified in close consultation with the Georgian Amelioration according to the predefined criteria proposed by the Consultant and agreed upon with the Client.

24. The control villages for Kvemo Samgori G33-G33-1 were identified and studied during the end-line study within the framework of the previous project Georgian

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[1] Kvemo Samgory G1-32 and Zeda Ru irrigation schemes were rehabilitated under the closed ILDMP, Kvemo-Samgori G33 and G33-1 is included to infrastructure rehabilitation program under GRAIL

Irrigation and Land Market Development Project (GILDP). The control group utilized in the end-line survey should be employed as the control group for the Kvemo Samgori G-33 and G33-1 schemes. Therefore, the comparison data for Kvemo Samgori is expected to be retrieved from the already existing database/survey data by the selected research company and used for comparative analysis for the current study.

25. The study of these types of settlements aims at a comparative analysis of land owners/ agri operators who receive project support and land owners who do not get project support and will not in any way benefit from the project intervention. This comparative analysis is crucial for assessing changes in the volume of crop production, yield, and crop patterns resulting from project implementation, which represents one of the key indicators for measuring the impact of the project.

26. For the above-mentioned settlement groups pre-post, treatment-control group comparison methods (double difference method) should be applied for data collection and analysis. The baseline study should provide a comprehensive analysis of current trends, observed changes (positive and/or negative, intended and/or unintended), and dynamics.

27. In addition to this, the Consultant should survey a separate group of respondents comprising large farms within the treatment group. Main economic influence is expected to be provided by large farms holding over 5 ha of land. As the number of such beneficiaries is quite small, the probability that large farms will be selected in the household survey is not high. Therefore, a separate stratum for such farmers has to be defined. The baseline study should aim at contacting and interviewing a representative sample of large farms (the number to be defined at a later stage).

28. **Collection of data for farmers' ability to pay analysis.** The Consultant is required to collect data on different parameters including cultivated area, farm size distribution, rainfed and irrigated crop areas, land tenure and registration within the scheme area, fertilizers and pesticides used, etc. The analysis of this data shall be done externally. As indicated in para 20 above, the list of data to be collected for the Ability to Pay analysis and the relevant question shall be provided at a later stage by PIU hired Ability to Pay consultant (see Annex 2 – Data requirement for the Ability to Pay analysis). The Consultant shall integrate relevant questions in the data collection instrument.

29. All data should be collected and analyzed in a gender context to explain the level of women's engagement in agriculture production and the role of women in irrigation practices.

30. All collected data should be disagreeable by gender, age and location. The study, among other information, should include data about the number and percentage of female-headed

households, land ownership disaggregated by gender, age and the share of farmers that conclude contracts for irrigation services disaggregated by gender, age and location.

31. The Consultant should: (i) focus on indicators required to measure the outcomes and impact of the rehabilitation. For indicators, please see Annex 1 – GRAIL Results Framework (relevant indicators for the baseline study are highlighted in the Annex 1) (ii) not duplicate existing available data; (iii) not require an excessive amount of interviewees' time; (iv) generate accurate and reliable results based on sound statistical best practice, and; (v) allow disaggregation by gender, age, farm size, location (irrigated or non-irrigated zones), irrigation techniques used, irrigation schemes, group of crops.

32. The Consultant should propose a mix of methods, including both qualitative and quantitative methods, for collecting and analyzing data for the predetermined indicators and questions. The Consultant is expected to collect data employing a variety of instruments including, household surveys, focus group meetings, interviews, and consultations with representatives of the MEPA, LTD Georgian Amelioration, Local Authorities, and other stakeholders. The Consultant is encouraged to use modern evaluation and study technologies and approaches for collecting and analysis of data.

33. The Consultant should collect data and provide analysis on the following directions and aspects:

   ❖ Household Farm Profile
   ❖ Profitability

   (a) Area – land cultivated, irrigation statutes and practices, land cultivation trends in connection to irrigation capacities
   (b) Crop, yield, volume and quality of production
   (c) Diversification (of crops) – crop patterns, ongoing or expected trends in changing crops
   (d) Marketing
   (e) Inputs (costs) – type and quantity of resources used for agricultural production
   (f) Finances – available financial resources, access to finances
   (g) Land – available land and access to it.

   ❖ Impact on Profit

   (a) Consumption
   (b) Investment (Farm and non-farm diversity)
   (c) Employment

   ❖ Farmers' satisfaction with irrigation services.

34. The Consultant shall design, propose, discuss, review, and finalize the sampling design in cooperation with the Client. The sampling design should outline the sampling approach, sample method and methods of analysis, sample frame, and sample size with thorough considerations of the aspects described above.

35. The Consultant shall propose, discuss, and finalize the questionnaire prepared based on the draft questionnaire provided by the Client. (Please see Annex 3- Draft Questionnaire for GRAIL Baseline Survey).

36. As indicated above, the baseline survey shall be split into two phases. Phase 1 should be conducted in the following project zones and surrounding areas: Shavgele Massif in the Samegrelo-Zemo Svaneti region: Villages Shavgele and Patara Poti; G33-G33-1 in Kvemo Samgori: Duzagrama, Paldo, Iormuganlo, Tsitsmatiani, Lambalo, Tulari and Kazlari; Zemo Chaladidi in Senaki municipality; Narekvavi in Mtskheta-Mtianet region: Mchadijvari, lamovani, tsikhedavi, Dzalisi, Mukhrani, Chardakhi, Gorovani, Tserovani, Kanda, Patara Kanda[2].

V. SPECIFIC RESPONSIBILITIES OF THE CONSULTANT

37. To accomplish the above tasks, the Consultant shall be responsible for the following:

   i.   Reviewing the project documents, including Project Appraisal Document and Results Framework.

   ii. Reviewing the project indicators and identifying best suitable data collection approach for each of the outcome and impact level indicators to be measured;

   iii. Reviewing and finalizing the survey questionnaire prepared by the client and/or developing new survey instruments and qualitative interview protocols, sampling design, data collection methodology before baseline data collection in close consultation with the Client and discussing any questions or concerns regarding the questionnaire with the Client before enumerator training.

   iv. Developing a detailed work plan and schedule covering enumerator training, instrument pilot testing, data collection, data entry, data cleaning, data analysis and report preparation, as well as associated quality control measures to include supervision, regular check-ins with the Client, and back checks.

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[2] These villages were identified and provided by GA

v. Identifying and training sufficient staff to conduct all aspects of data collection, entry, and cleaning, including:

- Enumerators
- Field Supervisors
- Data Entry/Cleaning Personnel
- Agriculture economists and experts with experience in analyzing policies/regulations with a focus on irrigation and agriculture.

vi. Preparing all documents produced within the framework of the baseline survey including questionnaires, protocols, reports, enumerators manuals etc. in both Georgian and English languages.

vii. Organizing facilities and materials and all other logistics for all enumerators and supervisors.

viii. Pretesting the survey questionnaire, qualitative interview protocols, and focus group discussion protocols with at least 30 (thirty) survey respondents, 4 interviewees, and 1 focus group in targeted schemes.

ix. Planning, managing, supervising, and implementing baseline data collection including data collection, data entry and data cleaning.

x. Analyzing and interpreting the data collected, using the agreed methodology, taking into consideration the goal, objectives, outcome and outputs, and target group of the Project;

xi. Provide a comparative analysis of treatment and control villages, provide correlation and regression analysis, provide statistical analysis and calculation for project indicators, and provide conclusions and analysis of collected data on disaggregated by gender, location, and age.

xii. Following standard confidentiality protocols:
- Having all enumerators read a confidentiality statement to respondents and having all respondents sign a consent statement;
- Ensuring all identifying information is included on a cover sheet of the survey;
- Ensuring a unique respondent ID number is attached to both identifying information and later pages of surveys;
- Removing identifying information following survey completion; and,
- Entering identifying and non-identifying information into a dataset separately.

xiii. Planning, managing, supervising and implementing the following quality assurance protocols:3

   – Daily supervisor reviews of all surveys and interviews for completion and abnormal responses;

   – Survey/interview back-checks for 10 percent of respondents by supervisors;

   – Double data entry by separate data entry operators, with manual reconciliation of discrepancies;

   – Data entry supervisor review of all submitted surveys/interviews for completeness;

   – Transcription and data entry of all qualitative data from interviews and focus group discussions into appropriate software

   – Data cleaning with internal consistency and range checks to identify potential errors and then analysis of outliers, leading to manual review of paper surveys; and

   – Correction of outstanding transcription errors.

xiv. Submit cleaned quantitative and qualitative datasets and corresponding code books of variable names and value labels to the Client in data formats specified by the client.

xv. Submit summary tables of all data in a presentable manner both in Georgian and English languages with the format and structure provided by the Client (Annex 4 – GRAIL Baseline Study Summary Tables, draft).

xvi. Submit reports listed in Table in the section Deliverables.

VI. DELIVERABLES

38. The assignment shall be provided over the course of four to five months starting after signing the contract (expected in May 2024). The Consultants will have to submit a detailed work schedule for the tasks above. All final data, field summaries, tables, brief reports and final baseline survey report are due to the Client in 5 months after singing the contract. It is the responsibility of the Consultant to ensure sufficient planning and resources are allocated to complete high-quality data collection in a timely manner. During contract negotiations, the Consultant and the Client shall discuss and agree on the work schedule, exact timing for key tasks and deliverables, duration, and sequence of key activities.

39. The list of deliverables and reports is given in the Table below. The timeframe for deliverables specified in Table 2. is indicative and can be adjusted by the Consultant in

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[3] The Client will perform additional quality assurance checks. The Consultant will be required to coordinate closely with Client throughout the data collection period.

accordance with the methodology and work schedule to be prepared as part of the Consultant's technical proposal. The time frame for each activity/deliverables will be evaluated by the Client and updated/agreed upon during contract negotiations and specified in the Contract.

Table 2. Timeframe and list of deliverables

Completion period (weeks or months from the date of singing a contract)	Schedule of Deliverables and submission of reports
Week I	A draft version of the research plan including study design and approach, research methodology and methods, sampling methodology and calculation, stratification and sample weights, the sample frame; and fieldwork schedule.
Week III	Final draft version questionnaires for (i) baseline survey; and (ii) collection of data for ability to pay analysis. Confidentiality provisions, quality control plan, and enumerator manual. Pilot-testing protocol and plan (all in draft version)
Week IV	Enumerator Training and pilot testing
Week V	Final versions of the above deliverables (with client feedback incorporated) submitted as a final research plan
Throughout the survey implementations	Updates on each set of activities in the form of a brief report that describes planned vs actual completed tasks, any deviations or challenges encountered, the Consultant's response, and the planned activities.
Week X	Data collection begins
Week XVI	Electronic copies of the final survey dataset (in SPSS or a compatible format, however if requested the Consultant should provide the final dataset in Excel format too), including a code book/data dictionary and value labels AND summary tables of all survey data (Georgian and English)
Week XVI	Electronic copies of transcribed interviews, including a coded dataset; a code book/ data dictionary and AND summary results of all data (Georgian)
Week XVIII	Electronic copies of transcribed focus group discussions, including a coded dataset in appropriate software; a code book/data dictionary and AND summary results of all data (Georgian)
Week XVIII	Final draft report (in English), including Executive

	Summary and Summary tables.
Week XXII	Final report and presentation of the findings to the stakeholders with summary tables (in English and Georgian). **OF note: data collected for the ability-to-pay analysis should be provided in a separate document/deliverable**

VII. CLIENT'S INPUT

40. The Client will oversee the entire baseline survey and collection of data. Specifically, the Client will:
    – Provide the Consultant with the project documents and available relevant data
    – Provide the Consultant with the draft of the household survey instrument/questionnaires for both the baseline survey and collection of data
    – Provide the Consultant with the dataset collected during the GILMDP end-line study for retrieving data on the control group and interviewed respondents in Kvemo Samgori
    – Shapefiles of the targeted area for precise identification of the respondents for the survey
    – Review and provide feedback on all deliverables,
    – Work with the Consultant and oversee survey pilot testing and revisions,
    – Overall oversight on quality of data collection,
    – Read reports briefs from the Consultant and provide feedback/troubleshoot problems
    – Review final datasets, codebooks, and summaries (including summary tables) for completeness and accuracy and provide feedback to the Consultant, if necessary
    – Review the draft and final report and provide comments/feedback.

VIII. QUALITY CONTROL BY THE CLIENT

41. In addition to requiring the Consultant to submit a dedicated quality control plan and implement sufficient internal quality control measures, the Client reserves the right to inspect any of the Consultant's work, and intends to verify data quality in at least two ways:

    – Through field monitoring, including unannounced spot-checks during data collection and/or follow-up visits to a subset of respondents; and,
    – Through an independent calculation of a data entry error rate for a sub-sample of completed questionnaires.

42. The Consultant must be available to respond to questions raised by the client regarding survey methods or results.

IX. STUDY OUTLINE SUMMARY

Data Collection Methodology	Administer a household survey with a statistically significant sample of farmers in the targeted areas.
	Administer other study activities such as desk research, in-depth interviews, and focus groups as agreed with the client before data collection.
Survey Locations	For Baseline Survey: Shavgele Massif in the Samegrelo-Zemo Svaneti region: Villages Shavgele and Patara Poti; G33-G33-1 in Kvemo Samgori: Duzagrama, Paldo, Iormuganlo, Tsitsmatiani, Lambalo, Tulari and Kazlari; Zemo Chaladidi in Senaki municipality; Narekvavi in Mtskheta-Mtianet region: Mchadijvari, lamovani, tsikhedavi, Dzalisi, Mukhrani, Chardakhi, Gorovani, Tserovani, Kanda, Patara Kanda. For Ability to Pay analysis: Narekvavi and possibly Kvemo-Samgori (G1-33-1) and Zeda Ru (to be decided by an ability To Pay consultant at a later stage).
Target Respondents	Farmer households, large agricultural enterprises, representatives of the MEPA, LLC Georgian Amelioration and other involved stakeholders.
Sampling	Design, discuss and finalize sampling methodology, stratification and sample weights, sample frame.
Questionnaires	The household survey questionnaire and questionnaire for the data collection is drafted by the Client. The Consultant is expected to revise and finalize the instrument in close cooperation with the Client. The Consultant is expected to design and propose protocols and another study instrument in cooperation with the Client after defining the most suitable methodologies for collecting and analyzing data on the indicated subjects. All questionnaires and study protocols; final reports and presentations should be provided in English and Georgian languages
Data Processing	Double entry of data is required. The data entry error rate must not exceed 3% (subject to independent verification by the Client). Full data cleaning, including logic checks on the validity of responses and manual reconciliation of data entry errors, is required.
Analysis	Comparative analysis of groups of treatment and control, correlation and regression analysis, statistical analysis and calculation for project indicators, provide conclusions,

	analysis of collected data, and recommendations.
Database Format	Data should be compiled in SPSS with a complete codebook of variable names and value labels in Georgian and English. There should be one record for each respondent identified by a unique ID, with a separate dataset mapping unique IDs to respondent identities. All records must allow for the identification of the interviewer, supervisor, and the time/length/location of the interview. Records should include the full contact information of the interviewed respondent to be used only for the GRAIL project purposes, particularly for envisaged panel studies for the mid-term and end-line studies.
Final Report	The report should provide a thorough analysis of collected data structured and presented with the prior agreed format in English and Georgian languages.

X. ANNEXES

Figure X-1

Annex 1 - GRAIL
Results Framework.

Figure X-2

GRAIL_Baseline
Survey _HH Survey C

Figure X-3

Annex 4 - GRAIl
Summary Tables_dra