

Terms of Reference and Scope of Services

“Rural Areas Economic Development Programme Implementation Unit” SA of Ministry of Economy of the Republic of Armenia seeks a Consulting Firm for the assignment of technical **land restoration service provider (LRSP)** for preparing a Landscape restoration report to serve as a basis for the implementation of investments for landscape restoration interventions under the internationally funded rural development project: Sustainable Land Management for Increased Productivity in Armenia (SLMIP).

Background

Armenia is a land-locked republic in the Southern Caucasus, bordered by Turkey, Iran, Georgia, and Azerbaijan. It's mainly mountainous territory covers an area of 29 800 km² that is administratively divided into 11 marzes (regions, including the capital Yerevan) and 915 communities (hamaynkner, singular hamaynk), of which 49 are urban and 866 are rural communities. About 40% of the country is not suitable for agriculture. The area suitable for agriculture comprises 1.39 million hectares of which 35% is arable agricultural land and very dependent on irrigation. The remainder is grasslands and pastures and perennial plantations.

As part of the recent comprehensive Armenia Development Strategy 2012-2025 (ADS), the Government of Armenia acknowledged that agriculture and rural development plays a key role in economic diversification, job creation, and poverty reduction. The Strategy focus on sustainable agriculture, by promoting soil conservation measures, improving water collection and irrigation methods, limiting the use of fertilizers and other agro-chemicals, and improving pasture management. The Strategy also aims to forecast and mitigate the effects of natural disasters, as well as implement measures to mitigate the impacts of climate change.

In this context International Fund for Agricultural Development (IFAD) is financing the Infrastructure and Rural Finance Support Programme (IRFSP) to assist the Government to resolve the widespread occurrence of poverty in the rural areas. Its overall objective is to improve the economic and social status of the population in selected rural areas where poverty is prevalent, by rehabilitating tertiary irrigation infrastructure, generating income growth and sustainable employment opportunities through strengthening the agricultural production systems and the forward and backward linkages of value chains for cash crops. The IRFSP Programme will be implemented over six years, starting in 2016.

IRFSP is co-financed by The Global Environmental Facility Trust Fund (GEFTF) investing in Sustainable Land Management for Increased Productivity in Armenia” (SLMIP). The GEF-financed activities are fully blended with the IFAD financing and they build on the IRFSP baseline programme in order to integrate soil and water conservation measures. It aims at the

development of the targeted high value agroforestry and vegetable crops, and restore the resilience to land degradation and climate-risks of the agro-ecosystems and the rural population in the project communal lands on a demand-driven basis from the communities. The overall objective of the SLMIP project is “to enhance the overall resilience of rural communities living in risk-prone areas of Armenia”, while the specific objective is “to increase income and assets generated by smallholder farmers through investments in sustainable land management systems and technologies”. The GEFTF/SLMIP strategy is based on the following components :

Component 1 – Investments in sustainable farming systems and technologies. The project will mainstream the adoption of climate-proof technologies in the tertiary irrigation systems rehabilitated by the baseline interventions, and support the conversion of marginal communal lands into climate-resilient agroforestry plantations, managed with efficient irrigation technologies and soil and water conservation agronomic systems and to improve the resilience of the baseline agriculture production interventions. Moreover, this component will specifically target women groups and support them with start-up packages to help diversify their livelihoods in the family farmland plots to increase their food and nutritional security.

Component 2 – Community-led land degradation prevention through landscape restoration interventions. The project will adopt an ecosystem-based landscape approach to identify vulnerable sites to land degradation and implement integrated landscape restoration interventions to enhance the functionality and durability of the irrigation schemes, prevent soil erosion degradation, and improve vegetation cover along water courses, catchment areas and mountain slopes. The final goal is to restore the environmental services supporting rural development in the target areas, and provide environmental, social and economic benefits from multipurpose restoration interventions. This component will also create opportunities for income diversification from the production, processing and marketing of wild products, such as those derived from beekeeping, supporting the creation and strengthening of youth associations making an economic use of the restored communal lands.

Component 3 – Enabling environment to enhance the capacity of smallholder farmers against land degradation. The project will create an enabling environment to enhance the capacity of smallholder farmers, decision makers and all relevant actors, to incorporate good practices in agriculture production and landscape restoration that help mitigate desertification and land degradation problems. Training programmes will be designed and implemented for women and youth. This component will also assess current policies and regulations, and crosscutting sectoral issues that may facilitate or prevent the adoption of sustainable farming systems and landscape restoration measures to mitigate land degradation and climate-risks, and propose policy recommendations.

Objective.

LRSP is expected to prepare a **detailed Land Restoration report**. The report should be a comprehensive study including:

- A. Revision of the existing 3 restoration and investments plans prepared¹ for the preselected sites in Syunik and Ararat marzes of the Republic of Armenia;
 - Identification the need of restoration activities in the selected areas and consequently - approval or revision of selected sites in the land restoration plan. This step will be implemented in full consultations with the beneficiaries with the RAED PMU and with the Ministry of Environment.
- B. Remapping and review of 218 hectares of communal areas in Syunik Region. Map polygons provided by Ministry of Environment, which include areas under reforestation plan of COP22 Paris Agreement Commitment to “10 Million Tree” project. LRSP is required to review a set of polygon maps delivered by MoEnv and check for inconsistencies towards the implementation of reforestation actions in the given areas as well as development of investment plans, particularly, advising on the types of investments per site, the environmental and climatic specifications, the bills of quantity and cost estimates, planting schemes, the implementation process and the involvement of the community (socio-economic and environmental and social impact assessments as required by eth national regulations and IFAD SECAP policies²).
- C. Implementation assistance, technical supervision and evaluation of reforestation actions on place, using free satellite imagines, drone imagery for the assessment of actual planted areas
- D. Development of Environmental and social Impact Assessment report

Scope of work

LRSP will have to work closely with the PIU GEF coordinator and the Ministry of Environment in revising the approach and explore/define the eligible actions and types of Landscape Restoration per site (e.g. restoration of pastoral and silvo-pastoral land, anti-erosion techniques). As stated in the GEF design document and in order to reach more municipalities and beneficiaries and generate the expected Global Environment Benefits, the activity should be located within the Armenia – Infrastructure & Rural Financial Services Programme, GEF eligible areas, on communal

¹ IRFSP will provide copies of these plans to the service provider.

² [IFAD's Social, Environmental and Climate Assessment Procedures \(SECAP\)](#)

land in sites that do not have any land tenure related issue and conflicts. The SECAP guidelines will have to be observed in this process. The scope of the assignment includes 3 key tasks, such as:

- **Revision of the restoration and investments plans**

The project will adopt an ecosystem-based landscape approach to identify vulnerable sites to land degradation and implement integrated landscape restoration interventions to prevent soil erosion degradation, and improve vegetation cover along water courses, catchment areas and mountain slopes etc. Based on this context the Service Provider is expected to:

Review the existing Landscape Restoration Report Packs for 3 areas previously identified for the project in frames of Project Component 2 – Community-led land degradation prevention through landscape restoration interventions.

- **7 ha** in Spandaryan settlement of Gorayq community, of Syunik marz
 - **44.3 ha** in Harzhis settlement of Tatev community of Syunik marz
 - **10 ha** in Nor Ughi community, Ararat marz
- Review the existing restoration report packs including the proposed works, bill of quantities, cost estimates and advise whether the initial 3 sites could be maintained in the action.

Note: The IFAD Mid-Term Review mission noticed that the approach for Landscape Restoration activities detailed in the documents (restoration plans and bills of quantities) is not adequate, partly because some of the proposed actions are not eligible under GEF and the high estimates costs per hectare.

In addition, the LRSP is required to deliver the following:

- **Assessment of pre-identified sites for final selection in the project**

In 2019 Global Innovation Forum, Republic of Armenia has committed to implement a large scale tree planting initiative to plant 10 million trees, based on the commitment of the Republic of Armenia under Paris Agreement. In this context, , the GEF SLMSP target for the restoration of degraded lands is 218 hectares to be applied under tree planting implementation action (pre-identified). Based on the commitments taken by the Republic of Armenia under COP22, Paris Agreement to plant 10 million trees in 2020-2022, the areas identified are in line with the National Priorities for Reforestation provided by Ministry of Environment of Republic of

Armenia. So far about 60 ha was preselected/evaluated for restoration under the Project (however, this still needs to be validated by the service provider, for those areas to further be included in project). In sum, service provider is required to review and reassess the pre-selected and pre-identified sites totaling in 218 hectares. The basic mapping information (polygons of sites KML/KMZ/SHP files) will be provided. According to the GEF CEO endorsed document the selection of the vulnerable sites is a continuous process and should be launched upon the demand and availability of the funds. In this context **LRSP** is required to:

- Briefly remap and clarify exact borders of polygons of areas to be included in the project and overlay GIS and Remote sensing data from free sources in relation to the following (DEM, land cover, slope and the mean NDVI value of the driest month over the last 3 years).
- Create the database of sites proposed to be included in the project, with detailed information on the key agro-ecological and geo-morphological properties of sites (altitude, slope, type of soil, vegetation, land use etc.)
- Implement brief socio-economic assessment and highlight vulnerability and poverty levels in the selected sites as well as land use right and any land tenure issues and potential conflicts.
- The selection should follow the SLM Project and the IUCN Restoration of Capacity Assessment Method (ROAM) according to the environmental – soil and climate features, land conservation status, and climate-risks, human created/intervened environmental issues and socio-economic context and fully aligned with the national environmental and social impact assessment rules , IFAD SECAP. Use free satellite/aerial imagery for proper re-mapping of degraded lands (use GIS mapping) as described above.
- Develop restoration plans by providing justification for proposed LR approach(es) per selected site categories, identifying land degradation types and extent, expected activities bill of quantities, stakeholder engagement and implementation schedule (taking into consideration any weather-related conditions and other factors that should be considered for a realistic implementation and monitoring plans). Highlight risks and mitigation measures.
- For each land plot SP should provide the following documentation:
 - Corrected Map of the plot
 - Planting Scheme in a given area
 - Type and variety of plants to be planted
 - Cost estimates
 - Bill of quantities
 - Narrative report and methodology of planting
- List of the areas to be provided divided by communities

Preselected Areas			
Marz	Communal Land polygon size (hectares)	Community	Area (hectares)
Syunik	218.1	Goris	28.56
		Khndzoresk	42.7
		Harzhis	19.61
		Sisian	57.8
		Shaghat	13.78
		Ashotavan	16.88
		Tolors	10.87
		Uyts	5.98
		Shaqi	21.92
Pre-identified Areas			
Syunik	51.3	Spandarian	7
		Harzhis	44.3
Ararat	10	Nor Ughi	10

- **Implementation assistance and evaluation:**
 1. Provide capacity support to the local authorities and final beneficiaries during the identification of the needs and restoration interventions. Sessions should be based on the main stages of the project, topics to include trainings on:
 - Tree/forest planting
 - Maintenance of newly planted forests
 - Seasonal specifications of plantation maintenance and monitoring
Additional:
 - Importance and benefits of reforestation
 2. Work closely with project staff members, the Ministry of Environment of the Republic of Armenia and other service providers (i.e. national and international), partners, donor organizations and stakeholders to facilitate the preparation of the restoration plans. This includes identification of overlaps and synergies with other similar projects that may be in the same area.
 3. Provide communication input to project activities; reporting should be done in accordance to the project time frame presented by the SP divided into actions e.g. provision of Mapping, Bill of Quantities, Cost Estimates etc.
 4. Monitoring and Evaluation of the project at post-implementation phase, using drone imagery to correctly identify the factual areas of reforested lands, by the end of the project. Provide separate report on the matter, as well to include those in the final report.

- **Development of Environmental Impact Assessment report.**
 - The report shall be based on National Legislation for Environmental Impact Assessment (Law of the Republic of Armenia on Environmental Impact Assessment and Expertize) as well as to align with SECAP guidelines³, particularly.
 1. Environmental Management Plan
 2. Environmental Monitoring Plan
 3. Socio-economic Management Plan
 4. Public Hearings with respective documentations (MoUs signed with community representatives/leaders)

Support the M&E team to establish baseline for the selected sites by providing geo-referenced profiles, maps and databases about candidate areas and proposed key investments (archived with common and open access GIS software) with reference to key outreach, outcome and output indicators. The LRSP shall work closely with M&E team of IRFSP to reflect the M&E reporting requirements in the assignment.

Experts (estimated at 15 man-months in total including all the man-months allocated for all experts)

The Service Provider will be required to mobilize the following key experts:

A. Team Leader/Environmental Management Specialist

- University degree in environmental management, environmental policy, landscape management, nature protection, or a related field
- Minimum of 8 years of experience in project management
- Experience in managing similar projects is an advantage
- Proficient in English and Armenian Languages
- Excellent planning, coordination, leadership and problem-solving skills

B. Sociologist/Social Expert

- University degree in social sciences, social policy, sociology or, a related field
- Minimum 5 years of experience in social action and research related projects
- General professional experience of at least 5 years, preferably with experience in rural areas of Armenia
- Proven experience in conducting similar tasks (environmental and social impact assessment)

³ [IFAD's Social, Environmental and Climate Assessment Procedures \(SECAP\)](#)

- Proficiency in Armenian Language and English is an advantage.
- Proven experience of work using SECAP and GEF guidelines is an advantage

C. *Agronomist/Forestry Specialist*

- University degree in Agriculture, Forestry, Biology, botany or a related field
- Minimum of 5 years of experience in sustainable land management, forestry, rangeland management, reforestation or related fields
- General professional experience of at least 5 years, preferably with experience in rural areas of Armenia.
- Proven experience in conducting similar tasks
- Proficiency in Armenian Language and good knowledge of English is an advantage.
- Excellent planning, coordination, teamwork skills and ability to meet deadlines.

D. *Mapping/GIS Specialist*

- University Degree in Geomatics, GIS and Remote sensing technologies applied to land management and agriculture or forestry/ecology.
- Minimum of 5 years of professional experience in Mapping/GIS related action with evidence of high quality relevant previous work
- Present samples of previous similar tasks – minimum 2 products.
- Proficiency in Armenian Language and good knowledge of English is an advantage.
- Familiarity and excellent knowledge of common GIS and Remote sensing software and open data sources.
- Excellent planning, coordination, teamwork skills and ability to meet deadlines.
- Knowledge of STAP GEF guidelines is an advantage

In addition, the LRSP is expected to mobilize all (additional) necessary short-term experts in the requisite qualifications and quantities to ensure the successful implementation of the project.

Level of input

The SP will be given a 12 months' contract.

Schedule of Reports and Deliverables

The SP will report to the GEF coordinator of IRFSP who is responsible for coordinating and supervising this assignment.

- The SP will report to the GEF coordinator according to the agreed work plan prerequisites (reporting requirements and indicators) that fall within the period of assignment.

- Regular monthly reporting, according to the enclosed general action plan including the provision of:
 - Environmental and Social Impact Assessment Report
 - Bill of Quantities
 - Cost estimates
 - Plan of Works
 - Public Hearings (Dates and Results)
 - Factual time-table of actions
 - Supervision reports, drone imagery and video, etc.
- The reports shall be presented in both Armenian and English.
- The SP is encouraged to complete the action in tighter deadlines keeping the quality of action and completeness of deliverables.

Besides the abovementioned services to be implemented, the SP should carry out also the Technical Supervision part of the land restoration activities (tree planting). For that purposes it's envisaged that the Agronomist and the Sociologist should lead the Technical Supervision activities. . It's also recommended that the final part of tree planting activities i.e. readiness of each plot to be monitored by a drone and filmed. The records of all planted plants should be provided to the Client.

Services to be provided by the Client

The Client will provide SP with the available documents and material for the successful completion of the assignment tasks, which include:

1. All existing maps (totaling in around 280 hectares) and surveys – as specified above, a separate report of 60 hectares of preselected areas, as well as polygon maps with respective preliminary eco-morphological metadata on the sites, including slopes, types of land, types of plants to be planted etc.
2. Priority of works to be planned
3. General Action Plan of Deliverables
4. Any additional administrative support for communication with Governmental, Local and National Organizations

General Action Plan and Timetable

Below is the tentative action plan according to the understanding of general timings of activities. A more detailed plan will be worked out with the SP during the implementation of the assignment.

