

ANNEX I – TERMS OF REFERENCE

National or International consultant: National Consultant

Title of consultancy: Procurement of the Services of an Ecologic expert for the rehabilitation of quarries

Project Title: Land Degradation Neutrality of Mountain Landscapes in Lebanon (LDN)

Period of assignment/services: 200 days spread over the period between May 2021 and June 2023

Is this a LTA (yes/no): Yes

I. Background

The Land Degradation Neutrality of Mountain Landscapes in Lebanon (LDN) project, funded by the Global Environment Facility (GEF) and is implemented in partnership with the Ministry of Environment in Lebanon, seeks land degradation neutrality in mountain lands by rehabilitating degraded land and preventing further degradation. It will do this initially at the pilot scale to gain the necessary skills and know-how as well as confidence before it can be up scaled and replicated post-project comprehensively. The pilot areas will be the mountain ranges in the Cazas of Jbeil and Akkar. The project duration is five years.

Rehabilitation practices will be tested for technical effectiveness, cost-effectiveness and benefits in the agriculture, mountain pastures and forestry sectors, the quarrying sector, and the eco-tourism and outdoor recreation sectors. Prevention will be achieved through comprehensive land use planning and the monitoring for compliance with set conditions and their enforcement.

There will be clarification of roles and enhancement of capacities particularly at local government level. The institutional and regulatory context will be reviewed, updated, and strengthened to prevent new degradation of forests, rangelands, and agricultural lands. The project will aim for a robust, comprehensive, and appropriate legal framework which will assess biodiversity and key ecosystem goods and services to inform permitting decisions.

Ultimately, the key to achieving LDN is in making the most effective land use planning decisions and in implementing and upscaling these together with appropriate restoration measures – which is reflected in the three Outcomes of the project which are:

1. Outcome 1: Degraded mountain land in selected mountain districts of northern Lebanon identified, rehabilitated, and restored.
2. Outcome 2: Mountain lands managed sustainably to prevent degradation.
3. Outcome 3: Project monitoring and evaluation, communication, knowledge management and financial mechanisms for the dissemination and replication of the results of the project with the aim of achieving land degradation neutrality.

The project will develop new financing mechanisms for sustainable land management (SLM) and forest management based on international best practice and a knowledge management platform to facilitate sustainability, replication and up-scaling of the new practices leading to land degradation neutrality.

To pilot the approach, the project will focus on the districts of Akkar and Jbeil and apply comparative remedial methodologies to restore mountain lands to their valuable ecological functions such as sustainable agricultural productivity, biodiversity habitat and ecosystem services.

Following the landscape scale survey conducted by the project, a continuing rehabilitative process will be established in selected publicly owned operating quarries in the high mountains of Akkar and Jbeil, which will manage and reduce the impacts on residents, ecosystem services, and biodiversity. Abandoned quarries will be selected in these same areas for testing rehabilitation techniques to be made safe, planted to achieve a vegetative cover against dust and run-off, landscaped and converted for social and ecological benefit, and possibly enhanced for eco-tourism activities and other outdoor recreation potential.

UNDP is seeking to procure the services of a national ecologic expert to work under the guidance and supervision of the UNDP LDN Project Manager (PM) to support the consulting firm working on the design of the rehabilitation of abandoned quarries, as well as take part in the supervision and monitoring of the rehabilitation works.

II. Scope of work

The purpose of the consultancy is to support in the design of the rehabilitation of abandoned quarries, and the supervision and monitoring of the rehabilitation works.

The project will be recruiting in parallel a consultancy firm for the engineering design of the rehabilitation of selected quarries in Akkar and Jbeil districts.

III. Key Tasks and Responsibilities

Under the overall guidance UNDP/LDN team at the Ministry of the Environment and in close coordination with the engineering consultancy company, the consultant will assume the lead responsibility of preparing the outputs mentioned herewith.

1. Develop a biodiversity assessment of the rehabilitation site/s (taking into consideration the data already compiled by the project through a baseline landscape scale survey and ecologic assessment of the project areas) including but not limited to:
 - Floristic composition, abundance, percent cover, diversity, ecological resilience of the identified plant communities and grazing impacts
 - Bio-geographical and bio-climatic features of the site
 - Recommendations for the most suitable species for restoration (based on the principles of availability and adaptability) and actions to optimize vegetation reinstatement in the quarry
 - A preliminary species database based on inventory done in the targeted area
 - Identification of biological corridors and reservoirs in order to orient the design in a way to restore or strengthen their role as refuges or shelters and to enhance their connectivity through the creation or restoration of corridors
2. Develop environmental indicators that support assessing the evolution of the landscape, the ecosystems, the communities, the population and the species, based on the biodiversity assessment to be used in the monitoring plan of the site/s. The indicators should include but not be limited to: the number and types of species frequenting the site, canopy cover, floristic composition, vegetation structure, hydrology indicators, etc.
3. Support in the elaboration of the rehabilitation objectives and design and the respective recommended actions, taking into consideration that a rehabilitation process has to target the

integration of the site with its natural surroundings in order to create a robust environment based on ecologically sound principles.

4. Prepare needed technical specifications and bills of quantities for the rehabilitation works and support in the UNDP procurement and review process for the selection of a contractors for the implementation of the rehabilitation works
5. Design an integrated monitoring plan for the follow-up on the implementation of the work
6. Undergo monitoring activities (field visits) that consist of the systematic collection of data enabling the follow-up of the restoration progress. Collected data should help in assessing the evolution of the landscape, the ecosystems, the communities, the populations and the species as well as in understanding the ongoing dynamics of the rehabilitation process. The consultant should also suggest remedial actions in case dynamics showed regressive trajectories directing the site away from the conceived rehabilitation scheme.
7. Support in the supervision of the rehabilitation works especially those related to planting and sowing activities, collecting and storing seeds, plant preparation and planting activities.

IV. Methodology

The methodology of work shall consist of field surveys and visits to the quarry site/s, desk review of relevant reports, project documentation, national and international reports, scientific publications and other resource tools in addition to direct consultations with key local stakeholders and data providers. The UNDP team will provide the Consultant with all the technical reports that are available and will also be available to provide guidance and directions to support in the development of the outputs as needed.

V. Expected Outputs and Deliverables

During the fulfillment of the assignment, the Consultant will ensure regular communication with the project team, and the environmental consultancy company and will ensure a timely delivery of the expected outputs and will regularly inform the project team and the environmental consultancy company about the progress as well as any obstacles that might occur.

The consultant is expected to submit one report for each assigned task.

The following deliverables requirements will apply to this agreement:

- Provision period of other required services will be defined in coordination with the project team.
- Deliverables are agreed upon with the Project Manager based on the defined tasks.

All deliverables should be handed out in two hard copies as well as one soft copy (Word format and Excel format for tables) and a PDF format for web publishing. If relevant, copies of high-resolution maps and graphics should also be handed out to the project management team.

VI. Institutional arrangements

The Consultant shall report to UNDP on the tasks mentioned in section III; coordination meetings with UNDP, MoE and MoA shall be called for as needed.

VII. Duration of work

- The contract will be valid on an LTA basis for the period between May 2021 and June 2023 with a maximum of 200 working days.
- The workload might be distributed unequally over time with more and less intense periods of work.

VIII. Duty station

The assignment requires deskwork, meetings, as well as coordination between the different related entities. The Consultant will perform the needed using his/her own property and technology and will hold direct responsibility for the quality of delivered outputs.

IX. Requirements for experience and qualifications

- Academic Qualifications:

Graduate Degree (MSc) in ecology, biodiversity, or any related field. PhD is an asset.

- Years of experience:

Minimum of 8 years' experience in quarry or land ecological rehabilitation design and/or implementation..

- Technical experience:

- Expert knowledge with experience in survey methodology and ecologic/biologic assessments.
- Expert knowledge with experience in ecological rehabilitation of quarry or land areas (Minimum 3 projects).
- Experience working with central and/ or local agencies, NGOs, private sector, civil society on Quarries- related assignments.
- International Experience in quarry rehabilitation is an asset.
- Experience with UN or international donor project(s) is an asset.

- Competencies:

- Advanced writing and editing skills in English.
- Computer literacy for Microsoft Office Package or equivalent.
- Excellent communication and consultation skills.
- Proven analytical skills and capacity in producing quality reports and documents.

X. Scope of Price Proposal and Schedule of Payments

Payment will be made against each deliverable/output (or a package of deliverables/outputs) on pre-agreed workday basis - an IC Time Sheet must be submitted by the Consultant, and duly approved by the Project Manager; this shall serve as the basis for the payment of fees, in addition to the PO raised for each assignment (s).