

## Terms of Reference

**National or International consultant:** National consultant

**Description of the assignment (Title of consultancy):** Provision of services for the establishment of rainfed vineyards on degraded and/or abandoned terraces

**Project Title:** Sustainable Land Management in the Qaraoun Catchment project

**Period of assignment/services:** 30 working days spread over a period of 10 months (no later than 28 February 2021)

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### 1. Background / Project Description

The UNDP Sustainable Land Management in the Qaraoun Catchment (SLMQ) Project aims at embedding sustainability considerations in land use planning and development activities in the Qaraoun Catchment. The project is funded by the Global Environment Facility (GEF) and is implemented in partnership with the Ministry of Environment in Lebanon. The project is intended to reshape land and natural resource management to (i) alleviate land degradation, (ii) maintain existing ecosystem services and (iii) improve livelihoods in the Qaraoun Catchment.

The project objectives will be achieved by developing institutional tools upstream at national level which will provide the Ministry of the Environment (MoE) and the Ministry of Agriculture (MoA) as well as related agencies such as the Council for Development and Reconstruction (CDR), the Ministry of Interior and Municipalities, the Bekaa Governorate, and District Administrations and Municipalities in the districts of Zahle, Rachaya, and West Bekaa with the know-how, means and mechanisms for promoting sustainable land use as in the best interest of the land owners, farmers and communities as well as the nation.

The implementation of the proposed project will have an immediate environmental benefit, through the increased management efficiency of arable land and rangelands and the expansion of the area under forests through land use plans, buffer zones, and riparian strips. It will also contribute to the restoration of natural productivity and conservation of the habitats of various plant and animal species and valuable ecosystems and will secure migratory bird pathways.

It is in this context that the SLMQ project is seeking the services of an expert to support the project in the establishment of rainfed vineyards on degraded and/or abandoned terraces through the revival of old, local and multipurpose grape cultivars (*Vitis vinifera* L.) using modern cultivation techniques in combination with medicinal, aromatic and culinary plants in the districts of Zahle, Rashaya and West Bekaa.

This assignment is expected to allow the project team to implement the rehabilitation of degraded terraces in various areas of the Bekaa to restore their agriculture potential following sustainable land management practices and taking into account economic opportunities identified for these areas. The consultant is also expected to promote best practices recommended for the establishment of such cultivations aiming at replicating the impact of the project.

This consultancy is divided into the following tasks:

- **Task 1** – Assessment of pre-selected areas for rehabilitation
- **Task 2** – Development of BoQs for the establishment of vineyards of selected sites
- **Task 3** – Dissemination of best practices and technology transfer through targeted hands-on trainings
- **Task 4** – Provide technical support during implementation

## **2. Scope of work, responsibilities and description of the proposed analytical work**

The tasks mentioned below shall be performed in close cooperation with the UNDP/SLMQ team. It is understood that the Consultant shall perform all the services/work as necessary to fulfill the objectives of the Consultancy Contract.

The requested services shall build on previous work undertaken by the project to identify degraded agricultural lands and specifically degraded and/or abandoned terraces in the districts of Zahle, Rashaya and West Bekaa.

The Tasks involved will cover the followings:

### **Task 1. Assessment of pre-selected areas for rehabilitation**

The Consultant is expected to assess pre-identified degraded and/or abandoned terraces clusters for their suitability to establish rainfed vineyards of old, local and multipurpose grape cultivars (*Vitis vinifera* L.) in combination with medicinal, aromatic and culinary plants (e.g. *Rosa damascena* Mill. and *Origanum syriacum* L.).

The selection process of the most suitable degraded and/or abandoned terraces clusters for rainfed vineyard are but are not limited to edaphoclimatic conditions, namely:

- Climate suitability: sites located at a bio-climatic level that supports growth of the selected plants;
- Stone wall conditions: priority to terraces with well-preserved or recently rehabilitated stone walls, followed by terraces with small areas requiring wall restoration;
- Soil conditions:
  - Soil types that support the growth of selected species,
  - Soil quality and suitability for agriculture purposes supported by relevant soil analysis noting that costs for prescribed soil analyses will be borne by the project for an accurate diagnosis, and
  - Land degradation scoring for each plot within the pre-selected clusters as already assessed by the project under the land degradation mapping exercise.
- Water availability: priority will be given to areas with less access to irrigation water to promote valorization of terraces using rainfed cultivations.

Priority will be given to sites with road access, availability of co-financing for the execution of the works, willingness and buy-in of the site owners, and organization/grouping of the site owners.

The Consultant shall submit the assessment of each selected locations (or cluster) including all the above-mentioned criteria

## **Task 2. Development of BoQs for the establishment of vineyards of selected sites**

Based on the output of task 1, the Consultant is expected to develop a Bill of Quantity (BoQ) for each site or cluster and a budget estimation to allow the team to establish the rainfed vineyards intercropped with *Rosa damascena Mill.* and *Origanum syriacum L.* including labor requirements. These shall elaborate all the requirements for the implementation of best cultivation practices including maintenance for the first 3 years post-establishment.

This shall include but is not limited to:

- Current status of the existing terraces (stone wall conditions) and indicative structural requirements for their rehabilitation
- Indicative requirements for land preparation and pre-planting activities including labor and machinery needed,
- Cultivars and rootstocks specifications and quantities,
- Vineyard design including intercropping with accompanying species: Planting density, row orientation, vine spacing between rows and within the row, and proper trellis system (type and height).

The expert is expected to provide the project with the appropriate modern cultivation techniques for rainfed vineyards intercropped with accompanying medicinal and aromatic plants and activities schedule (planting, trellising, pruning and training, fertilization, IPM, harvest and post-harvest handling).

The Consultant shall also provide the project team with an estimation of average grapes yield/ha for the and average price/kg (on-farm), and average cost of production in best case and worse case scenarios based on his/her experience including maintenance requirements.

The BoQs will serve as basis for the works needed for the establishment of the rainfed vineyards intercropped with *Rosa damascena Mill.* and *Origanum syriacum L.* The Consultant is also requested to submit a schematic layout drawing per site to facilitate execution including accompanying species.

## **Task 3. Dissemination of best practices and technology transfer through targeted hands-on trainings**

In addition to the beneficiaries (owners of rehabilitated terraces or delegated municipalities), the Consultant shall, in coordination with the project team identify additional beneficiaries growing the same species for capacity building and dissemination of best practices for in the Bekaa.

The Consultant shall develop simplified training material covering the entire viticulture process and shall implement at least 5 training sessions (2 days each), 4 of which for newly introduced stakeholders.

#### **Task 4. Provide technical support during implementation**

The Consultant should be available for a total of 8 working days to provide QA/QC support to the team on the works. This shall include mostly land preparation, planting, and cultivation and irrigation activities to maximize the success rate of the initiative.

The Consultant is requested to provide feedback in written form according to a pre-developed template in order to standardize feedback on the various sites including corrective actions, where relevant.

### **3. Expected Outputs and deliverables**

<b>Deliverables/ Outputs</b>	<b>Estimated Duration to Complete</b>	<b>Target Due Dates</b>	<b>Review and Approvals Required</b> ( <i>Indicate designation of person who will review output and confirm acceptance</i> )
<b>Deliverable 1: Site Assessment Report</b>	7 working days	1 month from contract signature	Project Officer
<b>Deliverable 2: BOQ and layout drawings</b>	5 working days	2 months from contract signature	Project Officer and Project Manager
<b>Deliverable 3: Training modules and training report</b>	10 working days	8 months from contract signature	Project Officer
<b>Deliverable 4: QA/QC report</b>	8 working days	10 months from contract signature	Project Officer

#### **4. Institutional arrangements**

The consultant will work under the direct supervision of the SLMQ Project Officer.

#### **5. Duration of work**

The overall duration of the contract covered by this ToR is 30 working days spread over a period of 10 months from the date of contract signature (no later than 28 February 2021).

## **6. Duty station**

The assignment requires field work, deskwork, research, meetings, as well as coordination between the different concerned stakeholders (private sector, vineyards owners, experts in the field, etc.). The consultant is requested to conduct at least 5 on-the-field training sessions to disseminate the best practices proposed in the framework of this assignment.

The remaining time of the consultancy can be undertaken from home.

## **7. Requirements for experience and qualifications**

### I. Academic Qualifications:

Bachelor's degree in agricultural engineering or closely related;

### II. Years of experience:

At least 10 years of work experience on the preferred field of viticulture management and vineyard establishment in general

### III. Technical experience:

- Experience of working cooperatively with grapes producers;
- Experience in working with government agencies (centrally and locally) is an asset;
- Proven knowledge of the Bekaa vineyards ecosystems;
- Experience with UN or international donor project(s) is an asset

### IIV. Competencies:

- Proficiency in English and Arabic languages.
- Demonstrable analytical skills and report writing skills;
- Good management and communication skills.

## **8. Scope of Price Proposal and Schedule of Payments**

The Consultant is expected to submit a financial proposal based on a Lump Sum amount including fees and foreseeable expenses.

- Lump sum amount must be "all-inclusive"<sup>1</sup>;
  - The contract price is fixed regardless of changes in the cost components.
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