

Terms of Reference (TOR)

BioConnect Project

Ref: EuropeAid/171337/DD/ACT/LB

Ensuring effective management and governance in Sites of Ecological Importance and expanding biodiversity protection in Southern Lebanon.

A project funded by the European Union

The Shouf Biosphere Reserve

seeks

A Consortium/ Institution of Biodiversity Monitoring Experts

The Shouf Biosphere Reserve, Lebanon

Mount Hermon, Lebanon

Location: The Shouf Biosphere Reserve and Mount Hermon Nature Reserve

Duration of consultancy: 1 year

Collaboration beginning: November 6, 2023

The proposed Action seeks to address the important socio-economic challenges that jeopardize conservation and sustainable development in Lebanon to the greatest possible extent, in line with the Call's objectives and priorities through the following overall objectives:

1. Enhancing the management and governance of sites of ecological importance in southern Lebanon
2. Creation of new Protected Areas and OECMs for broader landscape conservation in southern Lebanon.

It focuses on the following specific objectives:

1. Linked to the Overall objective 1 1.1) Design and implement rigorous, regular and consistent monitoring and evaluation schemes for key biodiversity (endangered species/ecosystems) and pressures; 1.2) Ensure effective, equitable site management, including appropriate management plans/guidelines for the sites; 1.3) Abate the main pressures on key biodiversity; and 1.4) Enhance sites' regulation enforcement.
2. Linked to the Overall objective 2: 2.1) Identify and assess suitable new PAs or OECMs; 2.2) Ensure sound management plans/guidelines for the new sites; and 2.3) Improve landscape connectivity among existing and new PAs/OECMs.

The project activities will be implemented mainly in 10 locations in the Southern part of Lebanon:

Shouf Biosphere Reserve (Shouf and West Bekaa), Caza of Jezzine, Mount Hermon, Tyre Coastal Nature Reserve, and villages in Metn.

The lead manager of the project is **Al-Shouf Cedar Society** in partnership with: ADR (Association for the Development of Rural Capacities); ACE (Association for Community and Environment), and SPNL (The Society for the Protection of Nature in Lebanon). It is supported by the local authorities and communities, as well as the Ministries of Environment and Agriculture.

The geographical scope of the consultancy

The scope of work covers The Shouf Biosphere Reserve and Mount Hermon Nature Reserve.

The Shouf Biosphere Reserve (SBR) lies between longitude 35° 28' - 35° 47' East and latitude 33° 32' - 35° 48' North at an altitude ranging from 1200 to 1980 meters. It is located along a mountain range known as the Barouk Mountain, which is a southern extension of the Mount Lebanon Range. The SBR covers an area of about 500 square km. which is equivalent to about 5% of Lebanon. It includes and is bounded by twenty-eight villages. It also includes two protected areas, Al-Shouf Cedar Reserve and Ammiq Wetland, which are fast becoming a major natural attraction for Lebanon and the region. The reserve's most famous attractions are its three magnificent cedar forests of Maasser Al-Shouf, Barouk and Ain Zhalta – Bmohary. These Cedar forests account for a quarter of the remaining cedar forest in Lebanon. The

Reserve is a popular destination for hiking and trekking, with trails matching all levels of interests and ages. It includes:

- a. The Core Zone (161 sq. km) of the SBR consists of the protected areas of Al-Shouf Cedar Reserve (Law 532), Ammiq Wetland, and private lands.
- b. The Buffer Zone (54 sq. km) consists of municipal lands and private lands incorporated into the Al-Shouf Cedar Reserve (Law 532).
- c. The Development (Transition) Zone (233 sq. km) consists mostly of private lands, municipal lands, and religious trusts (Awqaf).

Mount Hermon Nature Reserve (MH), established on property No. 5851 (Amiri) of the Rashaya Al-Wadi real estate area, Rashaya District - Bekaa Governorate covers an area of 1260 hectares. It is located in the eastern Lebanon mountain range, specifically In Mount Hermon, also known as Jabal al-Sheikh, which is one of the important areas in terms of biological diversity in the Mediterranean region. It aims at protecting natural resources (ground and surface waters) and ecosystems, preserving landscapes, and conserving biodiversity, especially endangered species with extinction. The area is rich in oaks, mallow, and other perennial trees, in addition to Hawthorn and wild almonds. It is characterized by the presence of a large number of plants, of which 100 species are medicinal. There are also endemic species of mammals in Lebanon, such as wolves, hyenas and wild cats. Moreover, this site is a sub-crossing for migratory birds, especially the steppe eagle.

The tasks mentioned in the next section shall be performed in close cooperation with the BioConnect team, in close coordination with the BioConnect scientific committee, and in consultation with the Ministry of Environment.

Overall Scope of Work

Under the direct supervision of the project coordinator, the selected consultant is expected to design rigorous, regular, and **consistent monitoring and evaluation schemes for key biodiversity indicators** through:

Preparatory work:

A. Desk research:

1. Conduct a comprehensive literature review on scientifically sound biodiversity monitoring protocols aimed at the identified species/habitats with emphasis on identifying citizen science monitoring protocols (publications to be produced in Arabic and English), in addition to the review of the existing monitoring protocols of SBR biodiversity (endangered species/ecosystems) and pressures.
2. Review and analyze the results of the monitoring activities previously conducted at the SBR within previously implemented projects since 2019.
3. Develop monitoring protocols for monitoring biodiversity (species and habitats) in the SBR and in MH.
4. Indicate the most significant flora and fauna indicators
5. Lay special importance to monitoring the key biodiversity species selected in the SBR and in MH and develop protocols for each.
6. Include the populations of wild endangered edible species within the protocols to be developed

B. Preparation of the monitoring scheme:

1. Identify the sites in the SBR and in MH of different management practices where the monitoring activities will take place
2. Upgrade SBR's existing monitoring scheme by proposing a list of biodiversity indicators relevant to monitoring activities to assess the biodiversity status of the sites and reveal the ecosystem's health. The indicators must be practical and easy to measure.
3. Include field surveys, templates and procedures for data collection, sharing, quality control and assurances, monitoring, reporting, etc.
4. Develop a training curriculum related to the monitoring of biodiversity in the SBR and in MH and conduct two workshops for stakeholders in each region including municipality representatives and site managers on biodiversity monitoring and sustainable land management.
5. Build the capacities of the team who will assist in data collection and fieldwork

C. Fieldwork:

1. Soundly and regularly lead the field surveys using the needed resources to achieve the above targets
2. Collect specimens and data for the selected areas following non-destructive measures
3. Analyze the collected data and compile the analysis into conclusions
4. Gather and use scientific information to evaluate and improve management decisions and practices on the ground.

D. Other

1. Participate in the meeting of the BioConnect scientific committee when needed

Expected Outputs and Deliverables

| Deliverables/ Outputs | Estimated Duration to Complete Target | Unit/s | Due Dates | Review and Approvals Required |
|---|---------------------------------------|---|---------------------------------------|-------------------------------|
| Deliverable 1: Inception Report including methodology of work | 2 weeks from the contract signature | 1 inception report | 2 weeks from the contract signature | Project Coordinator |
| Deliverable 2: Desk Review report and plan for data collection | 1 month from the contract signature | 1 desk review report including the methodology and data collection plan | 1 month from the contract signature | Project Coordinator |
| Deliverable 3: 3 protocols for the 3 key biodiversity indicators | 2 months from the contract signature | 3 protocols | 2 months from the contract signature | Project Coordinator |
| Deliverable 4: Detailed protocols for flora monitoring including field surveys and templates | 4 months from the contract signature | list of protocols Field sheets | 4 months from the contract signature | Project Coordinator |
| Deliverable 5: Detailed protocols for fauna monitoring including field surveys and templates | 4 months from the contract signature | List of indicators Field sheets | 4 months from the contract signature | Project Coordinator |
| Deliverable 6: Training curriculum for the monitoring of biodiversity and implementation of the trainings | 5 months from the contract signature | Training materials | 5 months from the contract signature | Project Coordinator |
| Deliverable 7: Monitoring report of the species present in the selected sites | 11 months from the contract signature | | 11 months from the contract signature | Project Coordinator |
| Deliverable 8: Analysis report of the status of biodiversity and the existing management practices | 12 months from the contract signature | | 12 months from the contract signature | Project Coordinator |

All deliverables must be submitted in English and are under the ownership of ACS

The whole Action is built upon strengthening local capacity in order to promote the conservation and sustainable use of biodiversity. Key Biodiversity monitoring (threatened/endemic species and/or habitats) will be performed at the action's sites. This requires the engagement of experts on flora (plants and trees), and fauna (herps, birds, insects, mammals).

Applicants:

Applications can be submitted by institutions or by individual applicants and teams (a consortium of experts, universities, NGOs...etc.) with the appropriate expertise and experience.

TOR activities period: 12 months starting from November 2023 till November 2024.

Qualification Requirements

The expert/team wishing to be considered for the services described herein should have the following qualifications:

1. at least a Master's degree in a related field. If a team, then the CVs of its main members should be qualified (Ph.D. is a plus)
2. A minimum of 5 years of relevant experience in implementing and monitoring biodiversity and ecology projects.

All communication and requested reports/deliverables shall be written in English.

Project implementation reporting:

Reporting to ACS should be conducted on a monthly basis (summary monthly report) with inception, midterm and final comprehensive reports