



Terms of Reference

Development of a National Inventory for Marine Invasive Alien Species, supported with the suitable monitoring plans and tools specially adopted for Lebanese Coastal and Marine Environment.

“Policy and Legislative Development for Mainstreaming the Sustainable Management of Marine and Coastal Ecosystems in Lebanon” Project

May, 2018

Table of Contents

1. Background Information	3
2. Objectives.....	4
3. Scope of Work.....	5
4. Activities.....	6
4.1. General Issues	6
4.2. Work Plan.....	6
4.3. Activity Requirements.....	7
5. Deliverables.....	7
5.1. Deliverables validation modalities	8
5.2. Delivery Schedule.....	8
6. Roles and Responsibilities.....	8
7. Language Requirements	9
8. Maximum budget available	9
9. Scope of cost proposal.....	9
10. Timing.....	9
11. Submissions.....	9
11.1 Technical proposal	9
11.2. Financial proposal	10
12. Monitoring, control and validation of the work	10
13. Deadlines and submission of proposals.....	11

1. Background Information

The marine and coastal biodiversity of Lebanon is severely degraded predominantly due to a lack of proper enforcement of rules and regulations related to the marine and coastal zone, combined with a lack of consolidated data and information on the marine and coastal biodiversity and limited awareness of the value and need for appropriate management amongst stakeholders.

The Lebanese coastline extends 220 km from Abdi in the North to Naqoura in the South along a north-south axis in the eastern Mediterranean. It is mainly a rocky shoreline with stretches of sand (20%) and pebbles inhabited by a variety of common and endangered species. This coastline includes 3 bays, several headlands and river mouths. Nearly 55% of the population lives on the coast and industrial, commercial and urban activities are concentrated on the water's edge. Within a 500m bandwidth urban areas occupy 40%, agriculture 41% and natural areas 19%.

The marine and coastal fauna and flora in Lebanon is considered Mediterranean with some sub-tropical elements. However, there are few published studies that document the ecosystem diversity and its components (fish, benthic communities, invertebrates, marine flora, sea avifauna, habitats). There are currently two officially declared coastal protected areas: Tyre Coastal Nature Reserve in the south and the Palm Islands Nature Reserve in the north.

Unfortunately, over the years, the marine and coastal ecosystem in Lebanon has been threatened by a multitude of factors that have caused the loss of species, the fragmentation or destruction of habitats: urban sprawl, industrialization, domestic wastes, tourist establishments, sand and pebble extraction, sand dredging, sea filling, water pollution, illegal and overfishing. Sand and pebble extraction has caused severe beach erosion in other places. Man-made embankments have destroyed several important biocenoses, which are vital environments for the spawning and feeding of several species of coastal and deep-sea fish. Dynamite fishing has also decimated fish stocks and further degraded some biocenoses (MoA/UNEP, 1996). These destructive activities are predominantly due to the lack of law enforcement capacity and the current overlap and conflict among existing legislation and institutional mandates. Moreover, most recently, the Lebanese coastline has been affected by a major oil spill that resulted from the Israeli bombing of Jiyeh power plant in July 2006.

On the other hand, new species are compensating the decline of local species in Lebanese fish markets (MOA/UNEP, 1996) and the settling of Indo-Pacific marine species in Lebanese and neighboring waters may be due to deep ecological disturbance, but there is a need for a proper and complete assessment. The rarity of baseline studies that document the ecosystem components, ecosystem services and characteristics as well as the series of harassments along the coast impede a proper evaluation and understanding of the short term, long term and cumulative impact of these ongoing changes. Moreover, the limited budget, the weak and overlapping institutional mandates and law texts, the absence of political will and the limited

expertise in marine ecosystems hinder the effective management of the marine ecosystems for the development of these resources as well as protection and conservation of biodiversity.

IUCN is currently implementing the *"Policy and Legislative Development for Mainstreaming the Sustainable Management of Marine and Coastal Ecosystems in Lebanon"* project in partnership with the Lebanese Ministry of Environment and with the support of the GEF and UN Environment. The project aims to create an enabling integrated framework for coastal and marine biodiversity management and protection, and to mainstream marine and coastal biodiversity into national plans and coastal zone management plans, with particular focus on the impact of climate change on biodiversity. As such, it provides an opportunity to coordinate with past and new initiatives in the region to address gaps in assessments, and seek sustainable and economically viable policy and technological options for the protection of key marine and coastal biodiversity to be included in coastal zone management plans, Marine Protected Area (MPA) plans and integrated into national plans.

The present project is being implemented to address the above mentioned critical issues.

2. Objectives

The objectives of the present terms of reference will be to carry out the following actions listed under the "Policy and Legislative Development for Mainstreaming the Sustainable Management of Marine and Coastal Ecosystems in Lebanon" project:

-- Development of a National Inventory for Marine Invasive Alien Species (NIMIAS) in Lebanon: threats, monitoring and capacity building.

The development of the NIMIAS will be based on pre-defined monitoring protocols according to the IUCN guidelines as defined in the publication *"Monitoring Marine Invasive Species in Mediterranean Marine Protected Areas (MPAs): A strategy and practical guide for managers"*.

- Establishment of nationwide checklist of the marine IAS updated up to last recent peer reviewed reported species until April 2018
- Preparation of factsheets for the most significant IAS affecting the marine environment of Lebanon.
- Adaptation of monitoring protocols that are most suitable for the Lebanese Marine and Coastal Environment.
- Selection of the effective monitoring tools to be adopted, their communication to stakeholders and the evaluation of the effectiveness of adopted policy and legislative tools.

This will also require a training needs assessment, training tools development and the training of officials, managers and experts in evaluation and monitoring techniques.

The overarching objective of this consultancy is to develop the National Inventory of Marine IAS to be published as first national inventory, with a soft copy to be uploaded on the Ministry of Environment server, along with data to the database for future updates- based on the occurrence of the species, their future status and/or the arrival of new species.

A special technical Training of Trainers to empower the relevant personnel in national institutions will be carried out, in order to nurture their capacity in monitoring IAS and updating the established National Inventory.

3. Scope of Work

Under the supervision of the "Policy and Legislative Development for Mainstreaming the Sustainable Management of Marine and Coastal Ecosystems in Lebanon" project management unit at IUCN ROWA and the Head of the Department of Ecosystems at the Ministry of Environment, the consultant will provide the following services:

- Identify all recorded Marine Invasive Alien Species in Lebanon and classify themost relevant in factsheets taking into consideration the following taxa:
 - Algae
 - Angiosperm
 - Cnidarians
 - Molluscs
 - Crustaceans
 - Ascidians
 - Combjellies/Ctenophores
 - Fishes
- Research adequate IAS monitoring techniques applied in the Mediterranean in order to develop standard monitoring protocols for implementation by the appropriate agencies and stakeholders under the form of a documented report, supported by a training workshop.
- Coordinate with relevant stakeholders to ensure the adoption of a national Invasive Species Policy based on the existing policy documents from various regional and international conventions and agreements.
- Evaluate, at the national and Mediterranean (regional) level, the effectiveness of the adopted policy and legislative measures in Lebanon and refine them when necessary through the implementation of a workshop with relevant stakeholders.
- Develop appropriate training tools and materials for different stakeholder groups to be submitted under the form of a report based on IUCN IAS Templates.
- Organize workshops to train officials, experts and managers in national institutions on usage and update of the National Inventory, the monitoring protocol and tools and monitoring issues.
- Develop and activate a citizen-science early detection platform

4. Activities

4.1. General Issues

Consultant is expected to undertake all steps necessary for the development of the National Inventory of IAS plan to empower the relevant personnel through the capacity building on monitoring of experts in the national institutions.

4.2. Work Plan

Development of a National Inventory for Marine Invasive Alien Species, supported with the suitable monitoring plans and tools specially adopted for Lebanese Coastal and Marine Environment.				
Action point	Method	Reporting method	Reporting beneficiary	Due date
Inception Report	Methodology, standards and procedures	1 Report	Report documented and submitted to IUCN ROWA	By June 1 st , 2018
Baseline survey to collect data on existing Marine IAS in Lebanon	Baseline survey for Marine IAS	1 Survey	Survey results and copy of survey	By June 18, 2018
Marine IAS in Lebanon classified with checklists for each species according to the families	IAS Classification and Factsheets	1 Report	Report documented and submitted to IUCN ROWA	By June30, 2018
Coordination workshop to ensure the adoption of a national IAS Policy based on the existing policy documents from various regional and international conventions and agreements.	Stakeholder engagement on IAS policy	1 Workshop	Workshop materials, participant list and workshop report.	By July 16, 2018
Conduct survey on monitoring training needs and requirements.	Training needs are identified	1 Survey	Survey results and copy of survey	By July 31 st ,2018
Develop appropriate training tools and materials for different stakeholder groups on the use and update of National Inventory including monitoring protocols	Training tools are identified	1 Report	Report documented and submitted to IUCN ROWA	By August 15, 2018
Organize a workshop to train officials, experts and managers in national	Officials, managers and experts are	1 Workshop	Workshop materials and list of	By August 25, 2018

institutions on the National IAS Inventory and the data collection and monitoring tools including factsheets.	trained on evaluation and monitoring techniques		participants 'workshop report.	
Final report with guidance note on the utilization of the National IAS Inventory and monitoring protocol and tools	Reference guidance note developed and shared	1 Final Report		By September 28, 2018

4.3. Activity Requirements

The following expected outputs for each required activity are intended as guidelines. The consultant is expected to provide input on requirements based on his/her own knowledge and experience when carrying out the work as necessary.

5. Deliverables

All written deliverables shall be delivered in one original hard copy, two hard copies and one electronic soft copy, preferably in Microsoft Word format, where applicable.

The following deliverables are requested:

- 1) One Inception Report, in which the consultant will highlight the methodology, standards and procedures of the assignment and in which s/he may propose for one time only an amendment to the scheduled deliverables.
- 2) Baseline survey to collect data on existing Marine IAS in Lebanon, including field component to acquire new needed data and/or to confirm previously reported IAS. 3) Marine IAS in Lebanon classified with factsheets for each species according to the families.
- 4) One coordination workshop to ensure the adoption of a national IAS Policy based on the existing policy documents from various regional and international conventions and agreements.
- 5) Conduct a needs assessment for MPA staff and nearby dive centers and marine science researchers' and develop the adequate methods and tools to monitor Marine IAS.
- 6) One report encompassing the appropriate training tools and materials for different stakeholder groups on the use and update of National Inventory including monitoring protocols. These materials will be used by IUCN to develop simple online tutorial for monitoring teams.
- 7) One training workshop to train officials, experts and managers in national institutions on the National IAS Inventory and the data collection and monitoring tools.
- 8) Create a community based early detection system, to promote the reporting by citizens through a defined social media channel on organisms that seem new or alien to them. This will be launched through meetings targeting, fishermen, divers and recreational fishermen.

9) Final report with guidance note on the utilization of the National IAS Inventory and monitoring protocol and tools.

5.1. Deliverables validation modalities

Provisional approval of submitted deliverables shall take place at each of the defined milestones shown in the delivery schedule. The delivery schedule should be agreed with IUCN ROWA at the start of the project and confirmed before each milestone. It is expected that such approval shall not exceed ten working days from the notification of the completion of a specific milestone.

On submittal of the final deliverable (deliverable 8), the approval of work shall not exceed fifteen working days.

5.2. Delivery Schedule

The expected overall duration for project completion is 4 months.

6. Roles and Responsibilities

The "Policy and Legislative Development for Mainstreaming the Sustainable Management of Marine and Coastal Ecosystems in Lebanon" project Management Unit at IUCN ROWA and the Head of the Department of Ecosystems at the Ministry of Environment will be the responsible focal points for the Consultant, while the latter - in case of a firm, company or team of experts - will appoint a contact person to facilitate communication between the two parties.

The "Policy and Legislative Development for Mainstreaming the Sustainable Management of Marine and Coastal Ecosystems in Lebanon" project Management Unit at IUCN ROWA and the Head of the Department of Ecosystems at the Ministry of Environment will:

- Inform and keep their officials up-to-date on the project progress
- Ensure that all personnel concerned in the system are constantly informed of the project activities to secure their involvement and ownership during and after implementation
- Express the needs of the project on behalf of its various staff and with their cooperation
- Follow-up the project throughout its cycle
- Promptly address issues which may hinder or delay the progress of the project
- Arrange and facilitate meetings prior and during project implementation
- Receive project deliverables and prepare the project for any discussions, presentations or meetings that will cover the approval activities for deliverables of all implementation phases
- Assist the consultant in executing tasks in the best way
- Approve the deliverables, when completed and submitted.

The Consultant, in case of firm, company or a team of experts in addition to fulfilling the requirements specified in this document, is required to:

- Appoint a Team Leader who shall act as a primary counterpart with IUCN ROWA and MoE in all aspects of the project. The team leader shall provide objective high-level supervision

of the mission on behalf of the Consultant and shall be responsible for project planning, follow-up and contingency planning

- Maintain an updated work schedule with adequate staffing to perform stated tasks
- Notify IUCN ROWA in writing, upon the successful completion of each milestone and provide all supporting documentation.

7. Language Requirements

All requested reports/deliverables shall be written in English and delivered in both hard and soft copies. However, training materials and sessions shall be made available/conducted both in Arabic and English.

8. Maximum budget available

The budget available for this assignment is 19,800 USD (including all taxes).

Logistical support: included in the budget, i.e IUCN will not accept any additional fees such as Travel, Accommodation, Local Transport, DSA, Insurance, etc.

IUCN will be charge of organizing the Training Workshops and covering the fees of venues.

9. Scope of cost proposal

The consultant will be paid through a lump sum amount which is all-costs inclusive. The payment will be split into three payments. All costs (professional fees, travel costs, living allowances, communications, consumables, etc.) that could possibly be incurred by the contractor must be factored into the final amounts submitted in the financial proposal. Note that the contract price is fixed regardless of changes in the cost component.

10. Timing

The expected timeframe for the project is 4months. This assignment will start on May 29 2018 and the maximum deadline for its completion is September 28, 2018.

11. Submissions

11.1 Technical proposal

For individual consultants:

- a) Personal CV indicating all past experience in the field of IAS in the Mediterranean sea, marine environment policies and marine activities, as well as the contact details (email and telephone number) of the candidate and at least three (3) professional references.

b) Brief description of why the individual considers him/herself as the most suitable for the assignment, a methodological note, on how they will approach and complete the assignment, and a time schedule.

For firms:

a) The firm's references regarding similar studies.

b) The CV of the experts with their qualifications, experience/references; indicating all past experience in the field of IAS in the Mediterranean Sea, marine environment polices and marine activities.

c) A methodological note on how they will approach and complete the assignment and a time schedule.

11.2. Financial proposal

Financial proposal in USD that indicates the all-inclusive fixed total contract price, supported by a breakdown of costs.

The financial proposal (which concerns firms only) should also include the following administrative documents:

- A tax certificate, valid on the bid submission date, proving that the bidder has no outstanding tax obligations.
- A statement delivered by the social security body to which the provider is affiliated, stating that all dues have been paid and which is valid on the date of submission.
- A non-bankruptcy certificate valid on the bid submission date.
- A sworn statement that the bidder is in no situation that could in any way be incompatible with the mission or compromise independence in carrying out the mission.
- A sworn statement from each of the members of the work team, who are not staff members, confirming that they are willing to participate in the work team to carry out this mission.

Should any administrative documents be missing, the firm will be contacted to complete the bidding documents. If after a period of 10 days the documents are still not complete, the bid will be eliminated.

12. Monitoring, control and validation of the work

The consultant will work under the supervision of IUCN ROWA and the Lebanese Ministry of Environment (monitoring committee). The service provider will submit a draft report for each of the phases. The service provider will hand in the final version 15 days after the monitoring committee has made its observations and comments on the draft report.

13. Deadlines and submission of proposals

Proposals must be sent electronically to the following e-mail address: westasia@iucn.org, before Sunday May 27, 2018, 23:59 CET.

E-mails should indicate clearly in their subject line the reference of this “TOR for IAS National Inventory Lebanon 2018”.

Only short listed candidates will be contacted

Proposals received after this deadline will not be considered.