

Terms of Reference

Scoping report of the Awali Basin and Coastal Area and ToRs for their integrated Management Plan

The expertise to be provided by the applicant (Consultant) relates to the following areas:

- Coastal Zone Management
- Spatial Planning
- Socio-economic issues
- Biology issues

The tasks and deliverables to be provided under each expertise field are detailed in the following sections of this document:

Part VII.1 relates to both Coastal Zone Management and Spatial Planning

Part VII.2 covers Socio-economic related issues

Part VII.3 covers Biology related issues

Part VII.4 covers Legal and Institutional issues related to coastal zone

It should be noted that the head of the team of experts will be engaged as the **Lead Expert** of the project. He/she will guide all other project's experts (National and International) and will have the main responsibility in drafting the Scoping report and the ToRs for the Management Plan. The Consultant will be directly responsible to and work under the coordination of GWP-Med and in close collaboration with the Hydrology/Hydrogeology International Expert (HHIE) and the Water Quality International Expert (WQIE).

Based on the above and for an easy reference, the overall output of this assignment has been defined as "***Scoping report of the Awali Basin and Coastal Area and ToRs for their integrated Management Plan***".

Finally, it should be highlighted that the herewith described undertaking is based on the collection, analysis and processing of existing information from institutions, authorities and other relevant stakeholders and sources and will not require field work for the purpose of gathering new data. If any of the data needed to produce the deliverables listed in this document do not exist, the Consultant should inform swiftly GWP-Med and describe this as part of the gap analysis to be part of the ToRs for the Management Plan. If any of the data needed exists but cannot be accessed, the Consultant should inform GWP-Med, and list this as part of "available but not accessible data".

Location: Lebanon

Starting date: 15 March 2015

End date: 30 August 2015

I. Background

The **UNEP/MAP GEF Strategic Partnership for the Mediterranean Large Marine Ecosystem (MedPartnership)** is a collective effort of leading organizations (regional, international, non-governmental, etc.) and countries sharing the Mediterranean Sea towards the protection of the marine and coastal environment of the Mediterranean. The MedPartnership aims to enable a coordinated and strategic approach to catalyze the policy, legal and institutional reforms, and the necessary investments to reverse the degradation trends affecting the

Mediterranean unique marine ecosystems including its coastal habitats and biodiversity. It is being led by **UNEP/MAP** and is financially supported by the Global Environment Facility (**GEF**), and other donors, including the EU and all participating countries.

The **Integrative Methodological Framework (IMF)** for coastal, river basin and aquifer management is under preparation by UNEP MAP PAP/RAC, GWP-Med and UNESCO under the Component 1 of the GEF/UNEP Med Partnership, to provide guidance for the preparation of **integrated coastal and water resources management plans** to enable, among others, the implementation of the ICZM Protocol of the Barcelona Convention as well as the Water Framework Directive (WFD).

The latter (WFD) is an instrument that has been incorporated in the legal frameworks of the EU countries and governs water resources management aiming at the good ecological and chemical status of water resources. Management is conducted at basin level.

Lebanon presents an interesting case for replication of experiences related to the implementation of the IMF in other parts of the Mediterranean under the MedPartnership as the country aspires to follow the concept of integrated river basin management and has oriented its water policies towards such norms and objectives. While facing a range of challenges in their implementation, the country is taking concrete steps forward.

Taking stock of the related experience **the activity (from this point forward referred to as the “Project”)** aims to facilitate implementation of the ICZM protocol, incorporating water resources management considerations according to the principles of the WFD, in the Awali River basin.

The **objective** is to create the basis and the enabling environment for the preparation of an appropriately scaled water resources and coastal zone management plan in the Awali area.

The project will lead to the:

- a. *Development of a report describing the state of management in the Awali basin and coastal area (Scoping Report).*
- b. *Establishment of a Shared Vision of the stakeholders for the management of the Awali basin and coastal area.*
- c. *Terms of Reference of a full-fledged management plan for the Awali basin and coastal area (Management Plan ToR).*

II. Partner Responsibilities

1. GWP-Med is responsible for the planning and the implementation of the Project.
2. The national counterparts are: the Ministries of Environment (MoE) and of Energy and Water (MoEW)

III. Project Area:

The Awali Basin and Coastal Area, including the adjacent Marine area that affects and/or is affected directly or indirectly by the surface and groundwater flow and the natural processes and human activities in the Awali basin and area.

IV. Project Duration

15 March 2015 – 30 August 2015

V. Language of deliverables

The deliverables will be in prepared in English.

VI. Experts' meetings

Few meetings will be organised in Beirut-Lebanon to achieve a better coordination of the work during the key implementation steps as follows:

1. Core Team meetings (with GWP-Med, MoE and MoEW, if applicable); 1day meeting during the collection phase, 1 day meeting for the preparation of the 1st draft Scoping Report, 1 day meeting in advance of the multi-stakeholders consultation (see point 3)
2. Meetings with national/local stakeholders as needed to collect and verify relevant information (2 days);
3. Participation in the multi-stakeholders consultation meeting and additional meeting as required and agreed with GWP-Med.

VII. Key tasks

VII.1 Coastal Zone Management and Spatial Planning related tasks

1. Prepare the list of information and data necessary for the development of the Scoping Report and the Management Plan ToR. Prepare the structure/ table of contents of the Scoping Report and the Management Plan ToR in close cooperation with the Environmental Quality - Water Resources Management International Expert (EQIE) and Hydrology/Hydrogeology International Expert (HHIE) as well as with GWP-Med experts. Appropriate forms will be provided by GWP-Med in the early stages of the action
2. Coordinate and guide the project team, the Hydrology/Hydrogeology and Legal Framework experts for the collection of the necessary information in accordance to their ToR.
3. Work closely with and provide guidance to the Hydrology/Hydrogeology/GIS expert for the preparation of maps.
4. Prepare the Scoping Report and the Management Plan ToR related to the area of focus (basin, coastal zone and adjacent marine area) using input from the project team, the Hydrology/hydrogeology/GIS and Legal Framework National Experts. The part of the Scoping Report and the Management Plan ToR related to CZM would include elements of the items listed below:
 - a. Overview regarding spatial planning in the area of focus including:
 - i. Description of the existing spatial planning system;
 - a. Legal framework and hierarchy of spatial planning documents;
 - b. Relevant spatial planning stakeholders;
 - c. Spatial planning instruments existing for regulating coastal areas and water resources, e.g. EIA/SEA (including examples of its application in the area); building inspection and other similar instruments.
 - ii. List of spatial/territorial planning documents in the area, including information on type of plan, year of its release (or preparation/adoption status), land use categories.
 - iii. Selection of appropriate spatial unit to be used for the purpose of an integrated basin and coastal/marine management plan. The proposed spatial unit should be taken into consideration and be in line to the maximum extend with the existing plans in the area (basin, coastal etc.). Shape files should be created in cooperation with the GIS expert.

- iv. Available land use maps collected and processed as appropriate in cooperation with the GIS expert.
- b. Documentation of reported pressures and impacts caused by different forms of land use in the area, including:
 - i. Identification of built-up areas, using available ortho-photos;
 - ii. Elaboration of the existing urban sprawl;
 - iii. Identification of the percentage of coastal area already urbanised (in particular within 100 meter zone – if possible);
 - iv. Identification of informal settlements –primarily identification of built-up areas outside the planned built-up area- including locations and spatial extent, magnitude of the phenomena, hectares, numbers of settlements, based on the information available at the related municipalities.
Elaboration of the negative impacts of spatial planning practices on the environment (water resources, biodiversity, terrestrial, brackish and marine ecosystems)
 - v. The following should be taken into consideration and/or related references should be included using already available information and data; should this information not readily be available expert opinion should be used;
 - Development scenarios in accordance to existing strategic plan documents;
 - Planned zoning development.
- 5. Identify and describe the coastal zone management related data and information gaps for the preparation of a full-fledged integrated coastal zone and water resources management plan.
- 6. Prepare the Draft Scoping Report and the Management Plan ToR using input from the EQIE and HHIE.
- 7. Present the Draft Scoping Report to the stakeholders during a consultation meeting. Incorporate comments and prepare a second draft using input by the EQIE and HHIE.
- 8. Incorporate comments and input by GWP-Med experts, the Ministry of Environment and the Ministry of Energy and Water and prepare the Final Scoping Report and the Management Plan ToR.
- 9. Participation in the experts meetings and the consultation meetings.

Deliverables

The following items should be delivered:

1. Proposal for structure/ table of contents of the Scoping Report and the Management Plan ToR;
2. Overview on spatial planning system in the area of focus and assessment of impacts caused by different forms of land use;
3. Land use map;
4. Scoping report and Management Plan ToR for the overall Awali focus area.

Qualifications

The expert(s) involved in the delivery of the tasks described above should have the following educational and professional qualifications:

- Senior professional level with a minimum of 10 years experience in issues related to the tasks, preferably in Lebanon;
- Academic background in coastal zone management, spatial planning environmental management or equivalent;

- Good knowledge of the institutional and regulatory framework in Lebanon;
- Sound knowledge of the political and institutional realities at local and national levels in relation to coastal/water resources and management in Lebanon;
- Previous working experience in the field with international organizations is desirable;
- Ability to analyse issues and information and prepare briefs and summaries;
- Strong research skills, combined with communication and interpersonal skills;
- Excellent Arab and English skills, both in written and oral format;
- Documented experience in the preparation of and drafting of CZM plans.

VII.2 Socio-economic related tasks

1. Collect information and data, and elaborate on the following under the guidance of the EQIE and HHIE (the expert that the consultant will work with for each of the following is provided below):
 - a. Overview of the socio-economic background and activities in the area of focus;
 - b. GDP trends, including per economic activity in the area of focus;
 - c. Trends in demography, settlements and migration/change in population in the different municipalities/villages in the area;
 - d. Key national and regional policies and strategies regarding development that affect the project area;
 - e. Instruments used for sustainable development in the area (economic, planning, regulatory, etc.), including possible economic incentives and favourable loans ;
 - f. Pressures and effects (damage and/or profit) of different economic activities to the environment; impacts caused by different forms of land use in the area; impacts caused by pollution, flooding and human interference with the hydraulic system. Show spatial distribution of these effects;
 - g. Agricultural production including type of cultivated crops; give related trends and provide related spatial distribution as per available data. Use of fertilizers and herbicides/ pesticides; give related trends and provide related spatial distribution as per available data (EQIE, HHIE).
 - h. Water use in the area of focus per economic activity , wastewater and waste production per economic activity; provide trends including monthly / annual consumption / production per economic activity as per available data (EQIE, HHIE);
 - i. Water utilities per municipality in the area of focus; describe management scheme and drinking water infrastructure. Provide trends including monthly / annual consumption as per available data. Describe tariff system including setting levels of tariffs, collection rates etc.; provide related trends as per available data (EQIE, HHIE).
 - j. Wastewater and solid waste utilities (entities, private or public or semi-privatized responsible of the operation of solid and water waste management systems); Wastewater collection and treatment as well as solid waste collection and disposal infrastructure; provide trends on monthly / annual production of waste and wastewater as per available data at municipalities. Type/synthesis of and quantity of liquid and solid waste produced in the area per municipality and trends in this regard, existing management schemes, tariff system, including setting levels of tariffs and collection rates, future plans with regard to solid waste management; present spatial distribution of disposal points (legal and illegal), areas of accumulation of waste (EQIE, HHIE) as per available data at municipalities.

- Identify and describe the socio-economic related data and information gaps for the preparation of a full-fledged integrated coastal zone and water resources management plan.

Deliverables

The following items should be delivered:

- Information and data in an appropriate form for the preparation of the Scoping Report and the Management Plan ToR as per the tasks described above and the guidance of the EQIE and HHIE.
- Sub-chapters of the Scoping Report and the Management Plan ToR.
- Comments on the drafts Scoping Report and the Management Plan ToR.

Qualifications

The expert involved in the delivery of the tasks described above should have the following educational and professional qualifications:

- Senior professional level with a minimum of five years experience in issues related to the tasks, preferably in Lebanon;
- Academic background in socio-economics, environmental management, coastal zone management or equivalent;
- Good knowledge of the institutional and regulatory framework in Lebanon;
- Sound knowledge of the political and institutional realities at local and national levels in relation to coastal/water resources and management in Lebanon;
- Previous working experience in the field with international organizations is desirable;
- Ability to analyse issues and information and prepare briefs and summaries on key ideas;
- Strong research skills, combined with communication and interpersonal skills;
- Excellent Arab and English skills, both in written and oral format.

VII.3 Biology and Ecosystems related tasks

- Collect the following information and data¹ following the guidance of the EQIE:
 - Literature research on biological resources regarding inland, transitional and coastal waters: assemble and provide past studies that have been done in the study area and are relevant to biological resources with special focus on surface inland waters, transitional waters and marine aquatic environment.
 - Provide **existing** information and data regarding biological elements of the **river ecosystem**. In particular the following biological elements and related characteristics will be considered: a) aquatic flora/ composition and abundance, b) benthic invertebrate

¹ This information will be used for the development of the part of the Scoping Report and the Management Plan ToR related to Environmental Quality and Water Management including elements of the items listed below (these listed below will be prepared by the EQIE – the Consultant will collect information and data to assist in their preparation):

- a. Description of the natural and anthropogenic characteristics of the study area. Designation of the Water Bodies in the study area by using appropriate environmental parameters such as topography, geology, catchment size, etc;
- b. Identification of point and diffuse pollution sources and estimation of pollution loads;
- c. Assessment of the chemical-physicochemical and the chemical status of surface waters and groundwater;
- d. Estimation of pressures to the ecosystems and threatened/endangered species;
- e. Assessment of the ecological status of surface waters and groundwater by combining the chemical-physicochemical status and the biological status;
- f. Assessment of the status of surface water sites and/or water bodies that lack adequate information by using pressure criteria and field investigations.

fauna (macroinvertebrates)/ composition and abundance, and c) fish fauna/ composition, abundance and age structure.

- Provide **existing** information and data regarding biological elements of **transitional waters** (e.g. coastal lagoons). In particular the following biological elements and related characteristics will be considered: a) phytoplankton/ composition, abundance and biomass, b) other aquatic flora/ composition and abundance, c) benthic invertebrate fauna (macroinvertebrates)/ composition and abundance, and d) fish fauna/ composition and abundance.
 - Provide **existing** information and data regarding biological elements of **coastal waters**. In particular the following biological elements and related characteristics will be considered: a) phytoplankton/ composition, abundance and biomass, b) other aquatic flora/ composition and abundance, c) benthic invertebrate fauna (macroinvertebrates)/ composition and abundance, and d) fish fauna/ composition and abundance.
2. Acquire and analyze as appropriate existing data on biodiversity, habitats and ecosystems in the focus area (terrestrial, freshwater, wetland, brackish and coastal/marine) as per the description below:
- 2.1 Preparation of map(s) of existing protected areas for the basin, coastal and adjacent marine area in collaboration with the GIS/WEAP expert; provide information on the management status including the zoning system (in GIS format), financing of management, implementation of legislation and enforcement of law etc.;
 - 2.2 Preparation of habitat map(s) for the basin, coastal and adjacent marine area in collaboration with the GIS/WEAP expert;
 - 2.3 Preparation from available documents of a list of species (if existing) in the basin, coastal and adjacent marine area including list of vulnerable and threatened species of national, regional and global importance (in accordance to national legal system and IUCN categorization); these should be associated to the identified habitats and grouped/presented accordingly.
 - 2.4 Rapid identification of ecosystem services (socio-economic, cultural, etc.);
 - 2.5 Rapid assessment of vulnerability of habitats and ecosystems in the area (using either existing studies or expert opinion) vis a vis the existing and planned economic and developmental activities – this should be done taking into consideration the socio-economic and pollution information and analysis to be performed by the responsible experts unless it is already performed in the framework of existing studies; Preparation of vulnerability maps in collaboration with the GIS/WEAP expert to.
3. In order to perform this task the expert will:
- 3.1 Identify the sources of information including national and private institutions and organizations in Lebanon, interned based sources, publicly available studies and reports etc.
 - 3.2 Acquire the necessary information from these sources. In the event that information and data are not publicly available or a fee is involved for their acquisition, the expert will seek the assistance of GWP-Med to acquire the needed information.
4. Compile the data and information in a form that can be used by the EQIE and prepare extracts and/or elaborate on the information and data acquired so as to render these usable by the EQIE. All data and information provided to the EQIE should be in English. The EQIE will provide an appropriate template to be used.
5. Provide comments on the drafts Scoping Report and the Management Plan ToR.
6. Participate in the experts meetings and the consultation meetings.

Deliverables

The following items should be delivered:

1. Information and data in an appropriate form for the preparation of the Scoping Report and the Management Plan ToR as per the list included in these ToR and the guidance of the EQIE.
2. Description of ecosystems' services as per point 2.4.
3. Maps of protected areas including a short description of the management approach and status.
4. Maps of Habitats as well as Ecological Vulnerability map.
5. Comments on the drafts Scoping Report and the Management Plan ToR.

Qualifications

The expert involved in the delivery of the tasks described above will be working under the coordination of the EQIE and GWP-Med should have the following educational and professional qualifications:

- Senior professional level with a minimum of five years experience in issues related to the tasks, preferably in Lebanon;
- Academic background in biology;
- Good knowledge of the institutional and regulatory framework in Lebanon;
- Sound knowledge of the political and institutional realities at local and national levels in relation to coastal/water resources and management in Lebanon;
- Previous working experience in the field with international organizations is desirable;
- Ability to analyse issues and information and prepare briefs and summaries on key ideas;
- Strong research skills, combined with communication and interpersonal skills;
- Excellent Arab and English skills, both in written and oral format.

VII.4 Legal and Institutional related tasks for coastal zone

1. Describe the existing and, where applicable, upcoming or in-the making status as it regards national and local institutional (agencies, authorities and regulating bodies in charge of management, control and enforcement – including description of their competences), legal and regulatory framework in the following fields of coastal zone (including transitional and marine waters):
 - urban and territorial planning;
 - nature protection and management including fisheries, forestry, hunting, management of protected areas;
 - environmental information;
 - Public participation.Describe briefly available tools to regulate the interface among national and sub-national actors.
2. Conduct a rapid analysis to:
 - a. Identify deficiencies in the legal framework that affect its implementation and/or have an effect in tackling already known problems and issues related to coastal zone management.
 - b. Assess the status of implementation of policies and legislation related to the areas described in point 1 and identify gaps and challenges at the national and local levels, in relation to the implementation capacities other than legislative i.e. institutional capacities in terms of adequacy of related organizational framework (e.g. following

provisions set by the law, appropriate institutions are established and responsibilities are designated etc.); administrative capacities (e.g. agencies are well staffed and supported with the necessary equipment, etc).

- c. Assess status of compliance with legislations related to the areas described in point 1; identify gaps in relation to current enforcement capacities and policies developed to enforce compliance with legislations. Factors affecting compliance with legislation to be considered in the collection and analysis of information may include, but not restricted to: development pressures, economics aspects, fragmentation of responsibilities within authorities, gaps in the delegation system including decentralization challenges, social considerations, reporting systems, inspection systems, gaps in the accountability chain and its embedment in the enforcement, monitoring and evaluation mechanisms, etc.

Deliverables

The Consultant will collect the necessary information by means of review of literature, published reports, and meetings with competent authorities and other stakeholders as appropriate.

The Consultant should deliver a:

1. Report including the following:
 - a. Description of existing institutional, legal and regulatory framework in the field of coastal zone management at the national and local levels.
 - b. Assessment of the:
 - i. Status of implementation as well as current implementation capacities in the field of coastal zone management at the national and local levels;
 - ii. Status of compliance as well as current enforcement capacities and policies and mechanisms developed to enforce compliance with legislation in the field of coastal zone management at the national and local levels.
 - c. Gaps in achieving implementation and compliance with legal and regulatory framework in the field of coastal zone management at the national and local levels.

Outputs and Deadlines

Outputs	Deadline
Time line of activities	2 weeks after contract signature
<i>Scoping report of the Awali Basin and Coastal Area</i>	August 17, 2015
<i>Gap analysis report - Identification of data/information gaps for the preparation of a management plan</i>	
<i>ToRs for an integrated Management Plan</i>	