Terms of reference for the recruitment of a consultant

The long-term global regulations of the Mediterranean Large Marine Ecosystem

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Prioritization of the transboundary problems, analysis of impacts and causes

28 April, 2021

1. Context and objectives

The GEF MedProgramme

The Mediterranean Sea Programme (MedProgramme), Enhancing Environmental Security (GEF ID 9607), is a Global Environment Facility (GEF) regional Multi Focal Area Programmatic Approach. UNEP/Mediterranean Action Plan (MAP) is the leading executing Agency. The MedProgramme aims to accelerate the implementation of agreed-upon priority actions to reduce the major transboundary environmental stresses affecting the Mediterranean Sea and its coastal areas while strengthening climate resilience and water security and improving the health and livelihoods of coastal populations. It will be developed through four Components and eight Child Projects.

This programme is based on an ambitious and overarching vision for change of: "*A healthy Mediterranean with marine and coastal ecosystems that are productive and biologically diverse contributing to sustainable development for the benefit of present and future generations*". The MedProgramme aims to accelerate the implementation of agreed-upon priority actions to reduce the major transboundary environmental stresses affecting the Mediterranean Sea and its coastal areas and associated ecosystem serviceswhile strengthening climate resilience and water security and improving the health and livelihoods of coastal populations.

Its Global Environmental Objectives are:

- To restore the integrity of a globally significant transboundary large marine ecosystem and its coastal areas through multi-Country cooperative actions;
- To prevent the exposure of humans and the environment to harmful chemicals and waste of global importance;
- To maintain globally significant biodiversity and the ecosystem goods and services that it provides to society;
- To increase resilience to the adverse impacts of climate change in vulnerable developing Countries.

To that end, the MedProgramme will target coastal nutrient pollution hotspots, harmful chemical and wastes, critical coastal habitats and freshwater resources, climate resilience, marine protected

areas, and monitoring of progress to impacts. In doing so, the MedProgramme will produce a series of interconnected outcomes to achieve multiple benefits at the national, regional and global levels, providing at the same time a collective response to regional and global soft and binding international environmental agreements.

The Med 2050 Programme

Plan Bleu is specialized in Outlook/Foresight Studies and has been mandated by the parties of the Barcelona Conference to carry out a new foresight programme on the future of the environment and development of the Mediterranean. This programme called "MED 2050" is aiming at identifying possible visions of the future of the Mediterranean by 2050 and building a solid and realistic transition paths towards a sustainable and inclusive future through a participative process. Scientists, decision-makers and stakeholders will be involved in the implementation of this program and a number of activities are planned as part of this programme to facilitate the exchanges of views regarding the future of the Mediterranean region.

The implementation of the core MED 2050 programme will consist of 4 steps:

- Phase 1: Building up the information and analysis baseline (2020–2021)
- Phase 2: Drawing up, sharing and comparing contrasting visions for the future across the Mediterranean at the sub regional level: East South and North (2021)
- Phase 3: Reconciling trends, disruptors and weak signals, and contrasting visions to identify a preferred yet realistic scenario (2022)
- Phase 4: Co-creating transition pathways and strategies in the short, medium and long term (2022–2023)

In addition to the core MED 2050 programme, it is proposed to develop complementary projects (so called "Focus") on more specific issues (on either thematic, geographical, for groups of stakeholders or cross-cutting problems) to nurture the development of the MED core programme, depending on funding resources made available by partners of the programme wishing to provide their support and to benefit in return from MED 2050 dynamics for their own priority areas of intervention. The present project will be one Focus project of the MED 2050 programme.

Synergies and complementarity between Med 2050 Programme and GEF MedProgramme

The MED 2050 will synergize and contribute to the GEF MedProgramme outputs and outcomes through Child Project 1.1 under Output 2.1: "Updated Transboundary Diagnostic Assessment (TDA) including gender assessment", and the following activities, which Plan Bleu will lead:

- Identification and prioritization of transboundary issues, determination of impacts, causal chain analysis.
- Carrying out thematic assessments, preparation of thematic reports and their review and analysis.
- Synthesizing analytical work, TDA drafting and identification of linkages with the Strategic Action Programme (SAP) process.

The paradigm shift

The integrated, holistic and ecosystem-based approach on the functioning of the Mediterranean Sea, seen as a Mega-Ecosystem, or Large Marine Ecosystem (LMEs) in GEF terminology[1]is of interest for both MedProgramme and MED 2050 programme, which wish to nurture the debate on the state, current challenges and future trends facing the Mediterranean, and their consequences in terms of risks, threats but also opportunities for the region as well as the political decisions that can be drawn from it.

The Mediterranean Sea can be seen as a small ocean that constitutes a single mega-ecosystem[2], most frequently analysed and managed through its different parts or components which provide only a partial vision of the complexity of this sea.

The structure, regulation and function of the Mediterranean Sea are rapidly changing. Global warming is a key driver of change, beside coastal nutrient pollution, harmful chemical and wastes discharge, the destruction of natural habitats and biodiversity, the introduction of invasive species, overfishing, the pressures on freshwater resources,… heavily influenced ecosystem functioning and the Mediterranean Sea responses are dramatic, such as the Eastern Mediterranean Transient changed the circulation patterns of the Eastern Mediterranean basin. Models did not predict these changes. Science, so far, focused much on the constraints that lead to regular sequences of events, allowing for predictions. In periods of rapid change, though, the historical nature of ecology becomes prominent, and contingencies acquire an overwhelming importance. This calls for new approaches to the study of complex mega-systems, such as the Mediterranean Sea. The identification of cells of ecosystem functioning, based on oceanographic processes that enhance production at different levels of marine food webs in specific areas, is a challenge for policy makers and the population that will eventually lead to better management and protection of the marine natural heritage. Even if historical systems do not allow for predictions, some trends are clear and a set of possible scenarios of what will happen in the future Mediterranean Sea can be proposed.

The Mediterranean, just like the oceans of the world, is affected by a number of threats. We must admit that future telling is not in our powers, but we have sufficient knowledge and insight on the state of the environment to show that our way of living is not compatible with the well-being of ecosystems, and that our well-being depends on the well-being of ecosystems. The trend towards unsustainability is clear, and must be inverted with proper policies, based on a more rational use of natural resources and clean energy production. The Mediterranean is like a miniaturized oceans showing rather dramatically the results of our direct and indirect pressures on ecosystems, calling for novel ways to tackle the complex problems regarding our impacts on the interaction between the physical and the biological domains in marine environments.

Many of the issues facing the Mediterranean Sea are transboundary in nature and can only be addressed in a sustainable and equitable manner through consideration of transboundary factors.

The present study will be part of an update of the Transboundary Diagnostic Analysis (TDA)[3] of the Mediterranean Sea which is due to be undertaken in the framework of Child Project 1.1 under the

[1] https://iwlearn.net/marine/lmes/list

[2] Ferdinando Boero, "*The future of the Mediterranean Sea Ecosystem: towards a different tomorrow*", in Sustainable development of the Mediterranean, Springer, 2015 ; Ferdinando Boero, Francesco De Leo, Simonetta Fraschetti, Gianmarco Ingrosso, "*The Cells of Ecosystem Functioning: Towards a holistic vision of marine space*", Advances in Marine Biology, Volume 82, 2019, Elsevier.

[3] The previous TDA for the Mediterranean dates back to 2005: "*Transboundary Diagnostic Analysis for the Mediterranean Sea*", UNEP/MAP/MEDPOL, 2005.

GEF MedProgramme. The overarching objectives of a TDA is to identify, quantify, and set priorities for environmental problems that are transboundary in nature.

2. Tasks description

This project is being developed by Plan Bleu, the Regional Activity Centre of the Mediterranean Action Plan (MAP), established as an association under the French Law of 1901 in Marseilles with an office in Marseilles(https://planbleu.org/en/). MAP is one of the main components of the Regional Seas Programme of the United Nations Environment Programme (UNEP). It is endowed with a legal instrument: the Barcelona Convention and relies on six regional activity centres (the "RACs") responsible in particular for promoting the implementation of the various protocols attached to the Convention. Plan Bleu is one of these six centres mandated by the twenty-one country Parties to the Barcelona Convention and the European Union (Contracting Parties to the Barcelona Convention). Plan Bleu acts as an observatory for the environment and sustainable development in the Mediterranean, and conducts thematic, systemic and foresight analyses likely to enlighten the region's stakeholders and decision-makers on environmental risks and sustainable development issues.

Plan Bleu will hire a consultant to carry out a study aiming at laying out the foundations of an analysis and assessment of the long-term global regulations problems facing the Mediterranean Large Marine Ecosystem, covering prioritization of the transboundary problems, analysis of impacts and causes.

The study will be undertaken by identifying and prioritizing the long-term global regulations problems facing the Mediterranean Large Marine Ecosystem; gathering and interpreting information on the environmental impacts and socio-economic consequences; and analyzing the immediate, underlying, and root causes for each problem.

In full accordance with the GEF TDA methodology[4], the assessment will identify, quantify, and set priorities for environmental transboundary issues that are affecting the long-term global regulations of the Mediterranean Large Marine Ecosystem. More specifically it will:

- Identify and prioritise environmental transboundary issues such as circulation patterns of water bodies, climate change impacts on the marine and coastal zone and interactions with physical and biological domains in the marine environment.
- Gather and interpret information on the environmental impacts and socio-economic consequences of each issue.
- Analyse the immediate, underlying, and root causes for each issue, and in particular identify specific practices, sources, locations, and human activity sectors from which environmental degradation arises or threatens to arise.

The results of this study will feed the updated TDA which will in turn provide a factual basis for expected follow-up activities towards formulation of the next Strategic Action Programme (SAP) for the Mediterranean that will (through strategic planning and negotiations) set priorities for the time horizon beyond 2025 to resolve the priority transboundary problems identified in the TDA.

The key components of the study to be undertaken by the consultant at this stage of the process are:

[4] GEF Transboundary Diagnostic Analysis/Strategic Action Programme Manual TDA-SAP Methodology (https://iwlearn.net/manuals/methodologies).

1. Scope of the study

The Mediterranean Sea like other LMEs is not a discrete system and in addition to marine systems, e.g. Exclusive Economic Zone (EEZs), coastal zones and river basins and the land-sea interface (e.g. land-based sources of pollution effecting coastal zones or marine ecosystems) are component parts of a LME that need to be considered. The delineation of transboundary water bodies to be studied shall be carried out with reference to the guidance provided by the Transboundary Waters Assessment Programe (TWAP)[5] and fully aligned with the delineation set by the MedProgramme.

The identification of transboundary problems such as pollution, changes in biodiversity, loss of ecosystems, eutrophication, invasive species…., including those related to the transformation of the LME functioning and climatic variability and change, is a crucial part of the TDA/SAP process as a whole and the TDA development phase. Because there are often limited available resources, prioritization is needed to identify which transboundary problems need to be considered further in the TDA. Prioritization should be established against transparent criteria or features of identified problems that contribute to their relative importance.

The study will focus on the long-term global regulation problems facing the Mediterranean Large Marine Ecosystem which is considered as a key transboundary problem. Issues such as the circulation patterns of water bodies, climate change impacts on those circulation patterns in the marine and coastal zones, their interactions with physical and biological domains and related vulnerabilities and risks in the marine and coastal zone but also with socio-economic activities will have to be covered.

In consultation with both Plan Bleu and MedProgramme Project Team, the consultant will have to clearly define the scope and components of the long-term global regulation problems facing the Mediterranean LME. He/she will have to make criteria and indicators used for prioritization transparent and explicit.

2. Collection and analysis of data and information

This consultancy will contribute updating the 2005 TDA baseline on transboundary issues that affect the state of Mediterranean LME by using existing data/information.

To that end, the consultant will build up knowledge pooling related to the transboundary problems facing the Mediterranean LME with relevant MAP components (SoED 2019, QSR 2023, MED 2050…) and other relevant assessments, documents and data collection processes on the Mediterranean LME covering various kinds of information (biophysical, geographic, socioeconomic, governance information,… including the gender issue)[6] in order to identify all relevant sources for knowledge pooling with a view to feed the TDA baseline.

The consultant should create a basic dataset available for the development of a TDA indicating levels of resolution of available data (global/local), including disaggregated by sex to facilitate responding to gender considerations, and include reference to global/regional needs for data and indicators as well as data gaps. The selection of indicators should be based on scientifically robust and validated approach related to the target of good environmental status (GES)[7] and should rely on previous and

[5] http://www.geftwap.org/

[6] LME modules include: pollution and ecosystem health; productivity; fish and fisheries; socioeconomics and governance.

[7] See for instance: https://fdmt.iwlearn.org/news/using-indicators-for-improved-water-resources-management-guide-for-basin-managers-and-practitioners

ongoing work undertaken by MAP (MSSD Dashboard, EcAp, IMAP, SEIS,…). The choice of these indicators will be crucial since they will be used as a starting point to identify key issues in the relevant water bodies, as well as to assess their severity and potential priority.

At this stage the purpose of the information and data stock taking exercise is to provide a sound baseline for the TDA through:

- Identifying all sources of data and information,
- Ascertaining the availability of the data and information,
- Assessing the compatibility and comparability of data sets and information,
- Identifying where there are gaps,
- Analyzing the quality of data and information,
- Assessing how verifiable the data is,
- Determine cost implications (if there are any).

The information gathered will contribute to a baseline enabling the progress towards the future SAP implementation and the regional agreement of indicators to be assessed as part of an overall Monitoring and Evaluation (M&E) system.

3. Determination of the environmental and socio-economic impacts

The environmental, social and economic impacts of degraded marine and costal ecosystems have adverse impacts on human and ecosystem health, food security, and social stability. In addition, changes in global hydrologic cycles driven by changes in climate and climatic variability deepen poverty, reduce food supplies, damage health and further threaten political and social stability in the region.

In the context of the TDA/SAP process, environmental impacts are defined as the effects of a transboundary problem on the integrity of an ecosystem whereas socio-economic impacts are a change in the welfare of people and access to resources attributable to the transboundary problem or its environmental impacts.

The consultant will have to gather and interpret information on the environmental impacts and socio-economic consequences of major problems affecting the macro-regulations of the Mediterranean LME and analyse it in an interdisciplinary/holistic manner. The gender balance dimension will require a specific examination to determine gender differentiated impacts and risks, gender gaps and inequalities, as well as opportunities and progress towards the achievement of SDG 5.

4. Analysis of the immediate, underlying, and root causes

A causal chain is an ordered sequence of events linking the causes of a problem with its effects. The causal chain analysis (CCA) is predicated on the belief that problems are best solved by attempting to address, correct or eliminate root causes, as opposed to merely addressing the immediately obvious symptoms. By directing corrective measures at root causes, it is more probable that a recurrence of the problem will be prevented. In most cases, prevention and proactive policy/action proved to be more cost-effective.

The consultant will have to analyze the immediate, underlying, and root causes of the deregulation and dysfunctioning affecting the Mediterranean LME, in particular by identifying specific practices,

sources, locations, and human activity sectors which act as a negative driving forces or pressures and affect the overall LME regulation/functioning.

To that end, causal chain will have to be developed to elucidate transboundary problem affecting the Mediterranean LME with its associated environmental impacts and socio-economic consequences. In so doing, 3 broad categories of causes, not necessarily discrete from each other, may be distinguished:

- Immediate or technical causes,
- Underlying causes,
- Root causes.

The consultant will have to produce a comprehensive list of sectors, immediate, underlying and root causes affecting the regulation of the Mediterranean LME with information on linkages between different levels and scales. In particular, the effects of climate change (in terms of cause and impact) need to be well understood to ensure that future interventions are both resilient and adaptive.

The purpose of this step is to complete each causal chain and provide quantitative or qualitative data to substantiate the analysis as much as possible.

To deliver on tasks 1 to 4 as listed above the consultant may usefully draw on the GEF Manual for TDA/SAP process[8].

The final report will comprise:

1) Identification and qualification of transboundary problems facing the Mediterranean Large Marine Ecosystem.
2) A baseline on Mediterranean LME transboundary problems: collection and analysis of data and information.
3) Identification and analysis of the impacts associated with the Mediterranean LME transboundary problems.
4) An analysis of the causes of Mediterranean LME transboundary problems.

The final report will constitute the technical and informational baseline on the basis of which a subsequent Regional meeting will be organized for consultation with experts and stakeholders on its results and findings. The organization of this regional meeting and associated costs are not covered by this call for tender.

3. Deliverables and payment schedule

Under the direct supervision of the Head of MED 2050 programme and overall guidance of the GEF MedProgramme Manager, the consultant will be responsible for producing the following deliverables (in English only):

A **Draft Report on transboundary problems facing the Mediterranean LME – Identification, baseline, impacts and root causes**, including the following sections:

[8] GEF TransboundaryDiagnostic Analysis/Strategic ActionProgramme Manual, TDA-SAPMethodology, IW:LEARN, https://iwlearn.net/manuals/methodologies

1) The identification and qualification of transboundary problems facing the Mediterranean Large Marine Ecosystem.
2) A baseline on Mediterranean LME transboundary problems.
3) The identification and analysis of the environmental and socio-economic impacts related to Mediterranean LME transboundary problems.
4) An analysis of the immediate, underlying and root causes of identified and prioritized Mediterranean LME transboundary problems.

2) A final report **on TDA for the Mediterranean - transboundary problems facing the Mediterranean LME – Identification, baseline, impacts and root causes**, incorporating the results of a regional meeting, convened to examine the Draft report on the identification and prioritisation of transboundary issues and determination of impacts and causal chain analysis.

Deliverable and payment schedule

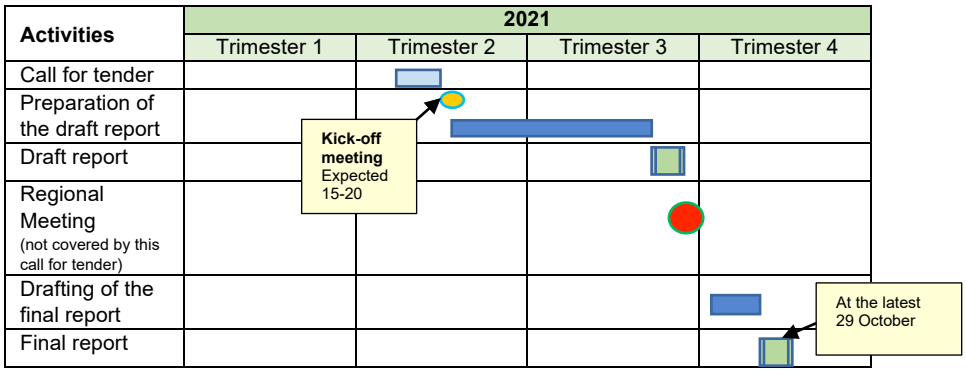
Deliverables	Expected date	Payment
Signature of the contract	15-20 May 2021	30%
Draft Report	10 September 2021	30%
Final Report	20 October 2021	40%

4. Timeline

The project will be implemented from the signature of the agreement between the consultant and Plan Bleu (expected by 15-20 May 2021) and must be closed by 29 October 2021 at the latest.

The detailed timetable (see provisional timetable below) will have to be agreed at the launch of the project with the consultant, taking account notably of the situation regarding the Covid pandemic.

Provisional Time schedule



5. Competencies

Education:
- Master's degree in fields relevant to the subject matter of the consultancy is required: sustainable development, environmental management, environmental sciences, international

development, international affairs, political science, economics, social science, planning, or other relevant fields.

Work experience:
- A minimum of 7 years of relevant experience in the field of environment, climate change, biodiversity, marine and coastal resources management, sustainable development, nature-based solutions or related areas is required.
- Minimum 7years of relevant experience in defining, conducting and evaluating sustainable development policies and its different components (resilience, environment, food security, governance, economic development, social equity...).
- At least 7 years of experience at international level is required.
- An experience of TDA/SAP processes is desirable.

Skills:
- A very good knowledge of environmental and sustainable development issues, particularly in the context of the Mediterranean region.
- Excellent knowledge of information systems and actors of sustainable development, natural resources management, climate change and environment in the Mediterranean.
- Solid experience in research and processing of quantitative data and qualitative information, knowledge.
- Excellent writing, analytical and synthesis skills.
- A very good command of English, both written and spoken.Working knowledge of French and/or Arabic language is desirable.
- Ability to respond to the programme's implementation objectives within a sometimes short timeframe.

6. Financial Offer

The financial offer must be based on a daily rate, applied to a mission to be carried out between 15-20May 2021 and 29 October 2021 at the latest.

Travel expenses will be reimbursed upon presentation of receipts and with application of ceilings, in accordance with the Blue Plan rules.

7. Selection of the Consultant

The selection of the consultant will be based on the assessment of his/her competence in relation to the required qualifications described above, the technical offer and an evaluation of the most economically advantageous offer.

Candidates should provide references of previous work on similar subjects and relevant documents by email to the address below if these cannot be easily found online.

In addition, applicants should demonstrate their legal capacity to sign contracts and issue invoices according to the legislation of their country. To this end, they should also include the following documents in their tender:

For consultancy firms:
- Extract of KBIS less than 3 months for companies based in France.

- Documents proving registration as a company in their country, clearly indicating the tax number (for companies based out of France).

For individual consultants:

- Registration certificate in the directory of companies (for consultant based in France).
- Document attesting to the right to exercise this profession (certificate of registration, for example) according to the legislation in force in their country, clearly indicating the tax number (for consultants based out of France).

Qualified young professionals and women are strongly encouraged to apply.

The final selection of the candidate may require an interview. In this case, depending on the Covid pandemic situation, candidates will be offered the choice of participating in a face-to-face interview in Marseille (France) or by videoconference.

8. Contractual, financial and practical conditions

Acceptance of the successful tender will imply acceptance of the terms and schedules detailed in these terms of reference.

A duly issued invoice will be required for payments at each stage of the schedule.

The payment term for invoices will be as follows: bank transfer 15 days following the invoice date (bank account details must be provided).

The tax legislation in force at the date of acceptance of the offer will be applied.

Le Plan Bleu will host the consultant when it is necessary to work face-to-face. Plan Bleu will not make computer or communication equipment available to the consultant.

9. Procedure to respond to this call for tenders

Plan Bleu invites consultancy firms or individual consultants interested in this consultation to indicate their motivation by sending a response to this call for tender including: **a letter of expression of interest**, **the CV of the expert(s)**, as well as a **detailed financial and technical offer** in response to these terms of reference.

Applications should be submitted no later than **20 May 2021** at 17:00 (GMT+1) on www.planbleu.org and by e-mail to acomolet@planbleu.org and sdulbecco@planbleu.org. For more information, please contact:

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