

Regional – Governance and Knowledge generation Project (GEF grant)
Component 2: Knowledge
Sub-Component: 2.1 Preparation of knowledge products for the Beneficiaries
Procurement Reference: FC001

Terms of reference for a Strategic Environmental Assessment (SEA) for the new Water Sector Strategy for Lebanon

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Table of contents

1. The context	3
2. Objectives.....	5
3. Expected outcome	5
4. Legal basis	5
5. Tasks.....	6
6. Reference documents.....	7
7. Approach and methodology, including involvement of key stakeholders	8
8. Schedule.....	9
9. Team	10
10. Minimum requirements.....	10
11. Organization and consultation.....	10

Acronyms

<i>BOD₅</i>	<i>Biological Oxygen Deficit</i>
<i>CEA</i>	<i>Country Environmental Analysis</i>
<i>GEF</i>	<i>Global Environmental Facility</i>
<i>IBP</i>	<i>International Best Practice</i>
<i>MoE</i>	<i>Ministry of Environment</i>
<i>MoEW</i>	<i>Ministry of Energy and Water</i>
<i>NGO</i>	<i>Non-Governmental Organizations</i>
<i>NWSS</i>	<i>National Water Sector Strategy</i>
<i>PPP</i>	<i>Plan, program, policy</i>
<i>SEA</i>	<i>Strategic Environmental Assessment</i>
<i>SSWS</i>	<i>Surface Storage Water Strategy</i>
<i>SWS</i>	<i>Strategy for the Wastewater Sector</i>
<i>WRM</i>	<i>Water Resource Management</i>

Terms of reference for a Strategic Environmental Assessment (SEA) for the new Water Sector Strategy (NWSS) for Lebanon

1. The context

The preparation of a Strategic Environmental Assessment (SEA) of the National Water Sector Strategy (NWSS) is part of the second component of the Regional – Governance and Knowledge generation Project (financed by a Global Environmental Facility – GEF – grant and executed by Plan Bleu), that “aims to produce innovative knowledge on environmental issues, with specific reference to water related topics (freshwater, coastal, and marine resources). It will provide training to the relevant stakeholders and carrying out of Studies for: (i) the preparation of knowledge products for the Beneficiaries on the various aspects of environmental vulnerability pertaining to the most relevant economic sectors and most critical locations at local, national and regional levels; and (ii) the dissemination activities for the Beneficiaries for the knowledge products produced, and the establishment of Project website.”

Despite its relatively high per capita water endowment (1,000m³/capita, Lebanon is already using two thirds of its available water resources, high by global standards (averaging 10-30% for other regions), and there is significant groundwater mining¹. Wastewater connections covered 66% of households in 2007, but wastewater treatment is lagging behind. The wastewater network is only in major urban areas, and there are only 11 wastewater treatment plants. Of the 348 million of m³ of raw wastewater in 2010, only 13.4 percent is treated with 7.3 percent of the BOD₅ removed, and the remaining wastewater is discharged into valleys, rivers, and the Mediterranean Sea².

In response to thorough analysis that it conducted on environmental degradation and water-related issues, the Lebanese government has made reform of the water sector a national priority and has prepared a National Water Sector Strategy (NWSS), which was adopted by the Council of Ministers in March 2012. The goal of the NWSS is ‘to ensure water supply, irrigation and sanitation services throughout Lebanon on a continuous basis and at optimal service levels, with a commitment to environmental, economic and social sustainability’.

In parallel with the NWSS, the Lebanese Government has embarked upon the preparation of detailed strategies for specific sections of the NWSS, such as:

- Strategy for the Wastewater Sector (SWS), adopted by the Council of Ministers on October 25, 2012. The objectives in the wastewater sector are to collect and treat all wastewater according to national standards and regional agreements and, where economic, to reuse treated wastewater for agriculture, industrial and amenity in line with national health and safety standards. Cost recovery will be based in the “polluter pays” principle. To meet these objectives, wastewater sector targets and initiatives were developed for the short,-medium (2011-2015) and the long (2016-2020) terms, and to serve the population until 2025-2030. The Strategy for the Wastewater Sector (SWS) requires all industries to pre-treat wastewater prior to discharge into the municipal water network by 2020
- A Strategy for Surface Water Storage (SSWS), based on, and updating, previous plans developed at the Ministry of Energy and Water. The SWSS analyzed water supply deficits for the coming 25 years and identified ways to ensure additional water resources. In addition to the reuse of treated wastewater and artificial recharge of aquifers and the optimization of spring flows, the SWSS focused on prioritizing the different dams and hill lakes.

¹ World Bank 2011 – Lebanon Water Sector Assistance

² Project2 – Lebanon Country Environmental Analysis

More details on NWSS, SWS and SWSS are to be found in the bibliography (see section 6).

In the context of the Regional Governance and Knowledge Generation Project (see project description attached), funded by the Global Environment Facility (GEF) and implemented by Plan Bleu, the Project's Beneficiaries (Lebanon, Morocco, Tunisia) have decided to support and finance several activities, including the preparation of an SEA for the NWSS of Lebanon. The expert is tasked with assisting the Lebanese Government with the terms of reference of the SEA and the supervision of SEA preparation with a target date of April 2014 for the completion of the said SEA.

Since the Lebanese Government passed the SEA Decree in March 2012, and given the pilot nature of the present initiative, the Government, during expert's October 2012 field mission, has proposed that the SEA should cover the NWSS and all related strategies including SWS and SSWS (all items wrapped under "the strategy") and it is with this understanding that the expert has prepared the present terms of reference for the future recruitment of a team of specialists ("the consultants").

Screening for the need for the SEA was conducted in the field with representatives from the Ministry of Environment (MoE) and of the Ministry of Energy and Water (MoEW). The review of the NWSS and of the SWS documentation reveals that both strategies will benefit from the preparation of a Strategic Environmental Assessment as defined in the recent decree and by international standards, notably for the following reasons:

- Improvement of environmental performance in Lebanon can be achieved by enhancing the future outcome of the SWS in a country where the treatment of wastewater has been a low priority in the past and has not benefitted from a strategic approach with the result that wastewater treatment facilities are not presently optimally used³ and that wastewater continues to pollute the Mediterranean, with coastal streams heavily polluted and more than 85% of the raw waste water flowing into the sea;
- Prevention of negative environmental and social impacts can be achieved at the strategic level by, for instance, introducing more environmental and social criteria in the ranking of future hydro-electric investments in the SSWS which is part and parcel of the NWSS; and
- Improved data measurement, collection and processing, notably on hydrogeology, are being conducted and will feed into, approximately at the same time as the forecast publication of the proposed SEA, a major overhauling of NWSS, justifying that the SEA can be influential in improving the sustainability and contribution to green and inclusive growth of the water strategies in Lebanon.

At Lebanese Government's request, this SEA preparation pilots the application of the February 2012 SEA decree which defines SEA as « *A planning and management method for combating or, at minimum, reducing sources of pollution and degradation of natural resources by way of assessing environmental impacts of policy, program, study, investment or organization proposals that tackle a Lebanese region or an activity sector, identifying necessary mitigation measures and enhancing positive outcomes on the environment and natural resources, prior to their acceptance or refusal.* » The decree stipulates, in article 3.1. that « - *Policy, program, plan or investment proposals submitted by public administrations as mentioned in Article one, including but not limited to proposals on water and wastewater management, ... subject to the provisions of this Decree.* »

³ For instance, it is estimated that the Ghadir pre-treatment which processes 46,000 m³/day operates at 50% of its capacity (source Geara D. et al.)

2. Objectives

The goal of this SEA is to conduct a systematic assessment of the environmental consequences of the strategy to ensure that the said consequences are fully included and addressed appropriately at the earliest possible stage of decision making them on par with economic and social considerations. More specifically, the objectives of this assignment are:

- To provide recommendations for optimizing the strategy in order to fully integrate major environmental, social, and economic concerns;
- To test and demonstrate opportunities for practical application of the SEA in Lebanon; and
- To test and demonstrate applicability of methodological and procedural SEA approach outlined in the Lebanon SEA decree.

3. Expected outcome

The SEA will result in:

- The production, validation and public disclosure of an SEA report;
- Recommendations for increased environmental sustainability of the strategy to be used as an input into its future updating; and
- Improved knowledge of the opportunities and constraints to the development of SEA in Lebanon following the publication of the SEA decree of March 2012.

The capacity created by the present SEA, both as a product and a process, will also serve the purpose of increasing the sustainability of plans, programs, strategies and policies in Lebanon.

Furthermore, the results of the SEA will also be shared with the other Beneficiaries (Tunisia and Morocco at present, more may be joining during the course of this SEA preparation) of the Regional – Governance and Knowledge Generation Project in order to leverage on the Lebanese experience on a larger, regional scale.

4. Legal basis

The SEA will abide by the SEA decree adopted by the Lebanese Government on March 29, 2012 and published in the Official Gazette in June of the same year.

The application of the SEA to the strategy will in particular apply Lebanese Government's ratified international conventions, in particular, but not limited to:

- The Barcelona Convention for the Protection of the Mediterranean Sea and its protocols
- United Nations Convention to Combat Desertification (1995)
- RAMSAR Convention on Wetlands of International Importance (ratified in 1999)
- African Eurasian Water Bird Agreement (2002)
- Cartagena Protocol on Biosafety (2008)
- The Convention on Biological Diversity (CBD - 1992), ratified by Law 360 in 1994
- The United Nations Framework Convention on Climate Change (UNFCCC)

The Council of Ministers approved in January 2012, four draft laws proposed by the Ministry of Environment (yet to be endorsed by Parliament): i) the Environmental Prosecutor; ii) the Protected Areas; iii) Integrated Solid Waste Management; and iv) Protection of Air Quality. In addition, the Council of Ministers approved in March 2012 other environmental decrees, namely: a) the Strategic Environmental Assessment (SEA); b) Environmental Compliance for Establishments; and c) the National Council for the Environment (NCE).

Additional legal requirements on environmental management/public consultation can be found (in Arabic) at <http://www.moe.gov.lb/The-Ministry/Laws-Regulations/Laws.aspx?lang=ar-lb>

5. Tasks

The consultants will undertake the following tasks under institutional arrangements that are described in section 11 of the present ToRs.

- Task 1. In-depth literature review
- Task 2. Scoping
- Task 3. Drafting and validation of a scoping report
- Task 4. Joint Lebanese Government-Plan Bleu review and integration in scoping report (see institutional set-up proposed)
- Task 5. Launching SEA study
- Task 6. Draft SEA report
- Task 7. Validation of draft SEA report
- Task 8. Final SEA report

Task 2 will entail the response by the consultants to the following questions, as per Annex 2 of the Lebanon SEA decree:

- I. What are the main objectives of the NWSS?
 - II. What are the key components of the NWSS?
 - III. What potential activities will result from the implementation of the NWSS (“the strategy”)?
 - IV. What will be affected by the strategy’s potential impacts?
 - IVa. Zone of influence of the strategy?
 - IVb. Sectors affected?
 - IVc. Social groups?
 - IVd. Geographical areas?
 - V. What existing or planned legal, institutional, technical & financial (Including taxation schemes) procedures will be undertaken to ascertain proper implementation of the strategy & management plan?
 - VI. What is the status of baseline environmental conditions that will be affected, either directly or indirectly, by the proposed strategy, including:
 - The natural (physical, chemical & biological) & social environments of living organisms & the sustainability of natural ecosystems;
 - Consumption of natural resources such as water, air, energy, soil, extracted minerals, space or land designated for construction &/or investment, etc. ;
 - Production of pollutants including solid waste, wastewater & air emissions;
 - Increase in ambient noise levels;
 - Biodiversity & natural heritage;
 - Climate change & ozone depletion;
 - Health & safety; and
 - Socio-economic conditions likely to affect negatively the environment & the sustainable use of natural resources &/ or the proper implementation of the proposed strategy.
- Particular attention should be paid by the consultants in evaluating the sources and robustness of the data used to prepare the strategy. The consultants, based on that review, will be responsible for making a thorough assessment and due recommendations on this aspect for this SEA.
- VII. What alternative options are available for fulfilling the plan or program objectives?
 - VIII. What are the potential environmental, social & economic impacts (direct or indirect, positive or negative; reversible or irreversible; cumulative; residual or transboundary) associated with the implementation of the strategy at the national, regional & global levels? Given the specific geographical conditions of Lebanon, a strong emphasis will be put by the consultants on the (legal, technical, institutional) management of potential transboundary impacts of the strategy.
 - IX. What tools & methodologies will be used for impact assessment (prediction & evaluation) & comparing the costs & benefits, using economic analysis, of alternative options?

X. Elaborating on the extensive work by the Bank on the cost of environmental degradation of water resources in Lebanon, identify the main externalities, possible price distortions and perverse subsidies in the water sector and propose remedial actions.

XI. What direct & indirect costs or benefits will result from environmental & socio-economic parameters following implementation of the proposed strategic action?

XII. How do costs & benefits compare with predicted impacts & national priorities?

XIII. What type of mitigation & monitoring plans should be developed to limit or reduce residual impacts?

Task 5 will use the outcome of the scoping process to focus on improvements to the NWSS and SWS, at the investment level and most importantly operational level, and will address, based on the answers to the 12 questions, all the following elements as per the SEA decree (Annex 3):

- SEA Study 1. Cover
- SEA Study 2. Executive summary
- SEA Study 3. Description of the proposed strategic action (NWSS)
- SEA Study 4. Assessment of baseline conditions
- SEA Study 5. Analysis of alternatives to the proposed strategic action
- SEA Study 6. Assessment of potential impacts resulting from the proposed strategic action and/or likely to affect it
- SEA Study 7. Coherence with legal, institutional and planning frameworks
- SEA Study 8. Selection of the « most suitable strategic option »
- SEA Study 9. Development of a relevant environmental management plan (EMP) to mitigate negative impacts and of indicators for monitoring strategy's implementation
- SEA Study 10. Recommendations for integrating SEA findings in the proposed strategic action
- SEA Study 11. List of references
- SEA Study 12. Technical Annexes
- SEA Study 13. Administrative Annexes

Among the indicators to be recommended by the consultants, indicators of environmental and social sustainability will be key. These indicators may be in the physical (percentage of renewable waters mobilized, cubic meters of raw sewage discharged in the natural environment), economic (evolution of the total economic cost of water) or even financial (percentage of cost recovery).

The estimated work-load, as an indication, would be as follows.

Consultant	Duration (p/m)
1 Team leader	5
1 SEA expert	3
1 social scientist	1
1 WRM specialist	1
1 ecologist	1
1 water sector economist	1
Total	12

At the very least, an approximate two-thirds of the overall time spent should be in the field in Lebanon.

6. Reference documents

The consultants will have to identify and review all relevant documents, among which the following ones, available from the expert and Plan Bleu, represent an absolute minimum.

Documents that will be provided in electronic form to the consultants:

- Basil Gebran (2012), National water sector strategy, Beirut
- Canadian International Development Agency (2004), Guide de l'évaluation environnementale stratégique des projets de plans, programmes et politiques (PPP), Ottawa
- Chaker A. and El-Fadl K. (2005), Strategic Environmental Assessment of Plans and Programs in Lebanon, Beirut
- Doumani Fadi (2009), Coastal Zones and Strategic Environmental Assessment Manual, World Bank, Washington D.C.
- Dusik Jiri (2004), Generic ToR for SEA processes, working document
- Geara Darine et al. (2010), State of the art about water uses and wastewater management in Lebanon, Lebanese Science Journal, Vol. 11, No. 2, 2010
- Gesellschaft für Internationale Zusammenarbeit (nov. 2011), Strategic environmental assessment, a governance tool for sustainable development, lessons learnt from applying SEA within development cooperation focusing on aid effectiveness, Eschborn
- GFA & Elard (2011),Projet d'Appui au Développement Local dans le Nord du Liban (ADELNORD); Final Report (N°3) of the short term mission : Definition of the Form and Content of a Strategic Sustainable Regional Development Plan adapted to the Lebanese needs and context, Beirut
- Hirji Rafik and Davis Richard (2009), Strategic Environmental Assessment, Improving Water Resources Governance and Decision Making: Case Studies, World Bank, Washington D.C.
- OECD/DAC (2012), Strategic Environmental Assessment in Development Practice, a review of recent experience, Paris
- Pillai Poonam and Mercier Jean-Roger (2009) - Learning from First-Generation Strategic Environmental Assessments Supported by the World Bank, World Bank Washington D.C.
- Republic of Lebanon (2012) Strategy for the Wastewater Sector
- République Libanaise (2005), Schéma directeur d'aménagement du territoire libanais, Conseil du développement et de la reconstruction
- République Libanaise, UNDP (2011), Etat de l'environnement et ses tendances au Liban 2010, Beirut
- World Bank (2011) Republic of Lebanon- Country Environmental Analysis, World Bank Washington D.C.

Internet resources:

- CIDA
- <http://web.acdi-cida.gc.ca/eanet>
- World Bank SEA Toolbox
- <http://go.worldbank.org/XIVZ1WF880>
- Benchmark paper by Dalal-Clayton
- <http://pubs.iied.org/pdfs/7766IIED.pdf>

Documents that the consultants will access in paper form or at the relevant officer's desk include the Surface Storage Strategy and the Wastewater Strategy at the Ministry of Energy and Water.

7. Approach and methodology, including involvement of key stakeholders

The consultants will primarily apply the guidance provided in two basic documents: Lebanese Government's SEA decree and the Training Manual on SEA of plans and programs in Lebanon. The consultants will also keep abreast of the development of International Best Practices (IBP) on SEA,

particularly in the water sector and apply, after checking with MoEW, those elements of IBP that are deemed relevant for this assignment.

In particular, the consultants will focus much of the initial effort on identifying the key stakeholders and establishing a proper communication channel with them.

In particular, the consultants will refer to the following five-step approach to design, describe and prescribe their SEA recommendations:

- Evaluate the analytical part of the strategy – whether it addresses all relevant major environmental social; and economic trends and problems and suggest any relevant modifications of the analytical part of the strategy;
- Choose relevant environmental social; and economic objectives that should be considered in the strategy; evaluate how the proposed development objectives of the strategy and proposed actions in the strategy relate to these objectives and suggest any relevant modifications in the development objectives pursued by the strategy;
- Evaluate individual and cumulative environmental social; and economic impacts of the proposed interventions in the strategy and suggest any relevant modifications of the strategy;
- Evaluate the adequacy of implementation arrangements and suggest any relevant modifications of the strategy - whether they incorporate conditions for environmental supervisions and formulate suggestions for modifications of the strategy; and
- Evaluate adequacy of existing NWSS monitoring plan – whether it provides for a realistic monitoring and analysis of key environmental [and social; and economic] impacts during implementation of the strategy and suggest any relevant modifications of the strategy.

8. Schedule

Here is the proposed schedule.

Mid-January 2013: ToRs finalized and launch of the call for expression of interest

April 2013 Consultants have a contract and start the work

September 2013 End of task 4

December 2013 End of task 6

March-April 2014 End of task 8 and of assignment

The team of consultants will be responsible for producing intermediary reports that will also serve as contractual payments of their services.

The deliverables and their proposed schedule are as follows.

Task 1. Literature review report, May 2013

Task 3. Scoping report, including the communication plan (see Section 11 below) July 2013

Task 6. Draft SEA report, December 2013

Task 8. Final SEA report, March-April 2014

The deliverables will be sent for validation to MoEW, MoE/EFL and the expert, and in copy to Plan Bleu.

The review of Tasks 1 and 3 by the Lebanese Government and the expert should not take more than 15 working days. The review of the draft SEA report, especially if it involves a form of stakeholders' forum as required in the SEA decree, may well take longer, but efforts by the consultants should be made to help with the process and help expedite it without losing the substance of the review.

Delays in these reviews will have a direct and negative impact on the overall assignment's duration.

9. Team

The proposed consultants' team should include:

- 1 Team leader with working knowledge in Lebanon or comparable neighboring countries, public sector management and SEA experience and at least 15 years professional experience in development-related fields;
- 1 SEA expert, with at least 10 years of professional experience in the field;
- 1 social scientist with experience of strategic approaches (e.g. Country social analysis, Poverty and Social Impact Assessment – PSIA -, SEA with social content...), with at least 10 years of professional experience in the field;
- 1 water resource management specialist, with at least 10 years of professional experience in the field;
- 1 ecologist, with at least 10 years of professional experience in the field; and
- 1 water sector economist, with at least 10 years of professional experience in the field.

10. Minimum requirements

The majority of the consultants' team should have demonstrated hands-on SEA experience at national or large regional/urban scale.

The majority of the consultant's team should have experience with SEA for large PPPs, say 1 b \$+ plan, program or policy (the NWSS alone comes with a 7+ b \$ price tag for the coming decade).

Experience with infrastructure PPP will be appreciated.

There will be no replacement of key experts (team leader, SEA expert, water sector specialist) without explicit consent from MoEW and Plan Bleu.

The consultants should have perfect knowledge of English and produce their reports in that language and the main consultants should be able to work in Arabic. French language mastering is not mandatory, but would be appreciated.

11. Organization and consultation

The consultants will work under the direct responsibility of the Ministry of Energy and Water (MoEW), with the Ministry of Environment (MoE) being the reviewer as per the SEA decree.

The expert, in close cooperation with his client Plan Bleu, will supervise the work of the consultants, in coordination with the Lebanese Government and will intervene upon request as well as during key steps of the SEA preparation/adoption.

During the whole preparation of the SEA, and particularly during tasks 3, 5 and 6 the consultants will consult extensively with Lebanese Government's relevant institutions (CDR, e.g. for Land Use, key Ministries – Public Works & Transport, Public Health, Agriculture -, Industry, Tourism, Interior & Municipalities, Water & Wastewater Establishments & Litani River Authority), plus key municipalities, academia, a selection of environmental and social NGOs, the Chamber of Commerce, Industry & Agriculture, the « Ordre des ingénieurs et architectes ». An SEA communication plan should be designed to respond to the need for public consultation, and proposed to the Lebanese Government for validation, as early as during task 3, and that communication plan should be implemented during the rest of the SEA preparation and validation.