

Annex I - Terms of Reference

National or International consultant: National

Description of the assignment (Title of consultancy): National Internet Technology (IT) Consultant to support in the design and development of a consolidated database of industries in Lebanon.

Project Title: Lebanon Environmental Pollution Abatement Project (LEPAP)

Period of assignment/services: 3 months

Is this a LTA (yes/no): No

1. Background Information/Project Description

In order to ensure a smooth transition for Lebanon towards environmental sustainability, the Government of Lebanon, through the Ministry of Environment (MoE) has requested the support of the World Bank (WB) and the Italian Government to establish the Lebanon Environmental Pollution Abatement Project (LEPAP) as a national initiative to respond to the challenges for promoting the financial and environmental sustainability of the industrial sector in Lebanon.

The LEPAP was initiated by the MoE in 2014 and consists of two main components: (A) Technical Assistance Component funded by the Italian Agency for Development Cooperation (AICS), and (B) Investment Component funded by the WB. LEPAP is being implemented by the United Nations Development Program (UNDP) in close partnership with the Ministry of Finance (MoF) and Banque du Liban (BDL). The LEPAP aims at reducing industrial pollution in targeted industrial enterprises and will contribute to strengthening the monitoring and enforcement capabilities of the MoE.

Under the technical assistance component, the AICS has approved the allocation of a financial contribution to UNDP to provide technical assistance to the project's beneficiaries mainly the MoE and the concerned industries and to support in the overall management of the project's activities. These ToRs relate to the technical assistance component of the project.

To improve the capabilities of the MoE in the permitting, monitoring and enforcement of the environmental regulations within the industrial sector in Lebanon, an Internet Technology (IT) Consultant (referred to as "Individual Consultant (IC)") will be recruited to support the LEPAP and MoE in designing and developing a consolidated database of the industries, including all relevant environmental information.

2. Scope of Work, Responsibilities and Description of the Proposed Analytical Work

The Consultant shall perform all the services/works as necessary to fulfill the objectives of the consultancy contract under the overall guidance of the LEPAP/Monitoring and Evaluation (M&E) Officer.

The Consultant will have but will not be limited to the following responsibilities:

- Develop a good understanding of the permitting, monitoring and enforcement procedures of the industrial sector in Lebanon and the main stakeholders involved after consultation with the M&E Officer;
- Develop a good understanding of the MoE requirements, the type of information currently available at the level of several Services/Departments and the expected configuration of the database through the M&E Officer to ensure:
 - . The information is well organized and easily but securely accessible;
 - . No redundancy of the data is being made;
 - . The accuracy and integrity of the information is maintained;
 - . The data processing and reporting needs of the MoE are taken into consideration;
- Defines site objectives by analyzing user requirements; envisioning system features and functionality.
- Designs and develops user interfaces to internet/intranet applications by setting expectations and features priorities throughout development life cycle; determining design methodologies and tool sets; designing and conducting tests.
- Provides technical support in system solutions by comparing advantages and disadvantages of custom development.
- Completes applications development by coordinating requirements, schedules and activities; troubleshooting development and production problem related to the newly developed application across multiple environments and operating platforms.
- Support in the development of documentation and assistance tools, as needed.
- Creates required reports in responses to business user needs and various applications.
- Write codes (stored procedures, triggers, database scripts) to implement the requested database interface based on technical advice considering the limitations and IT structures within the MoE.
- Develops web-based solution to be hosted on MoE servers to be used on the internal network at first stage and ready to be published online whenever needed.
- Identify the database requirements in coordination with the M&E Officer: what the data items are, what attributes they have, what constraints apply and the relationships that hold between the data items;
- Provide a backup mechanism of the newly developed database/software;
- Test and validate the backup by restoring the application and database on a new server from the latest differential or full backup.
- Provide the detailed steps of the restore procedure and the time taken to put the application online after restore.
- Based on the above, determine the most suitable modality to establish the database which would allow access to multiple users with various levels to the developed database with easy access to update the data;

3. Expected outputs and Deliverables

Deliverable 1: Consolidated industrial database.

The Consultant will develop a user-friendly database for industries in Lebanon in line with the requirements of the MoE to help users manage and retrieve data effectively.

Deliverable 2: Technical report.

Once the database has been submitted to LEPAP and approved by MoE and LEPAP, the consultant will submit a technical report including but not limited to the following:

- MoE requirements taken into consideration for the development of the database;
- Services/Departments responsible for managing and updating the database;

- Specifications of the developed database and main features;
- Operating procedures for the management and maintenance of the database;
- Identification of any potential usage issues and malfunctions and suggested corrective actions;
- Estimation of the timeline and resources needed for filling the database and updating it on a continuous basis;
- Source of suppliers for software and other needs.

The milestones are summarized in below table:

Deliverables/ Outputs	Estimated Duration to Complete	Target Due Dates	Review and Approvals Required
Deliverable 1 Consolidated industrial database	35 workdays	Within 6 weeks from date of Contract signature	Project M&E Officer
Deliverable 2 Technical report	15 workdays	Within 8 weeks from date of Contract signature	Project M&E Officer

4. Institutional arrangements

The Consultant will work under the direct supervision of the LEPAP/M&E Officer. During the fulfillment of the tasks under this agreement, the Consultant will ensure regular communication with the project team and will ensure a timely delivery of the expected outputs and will regularly inform the project team of the progress as well as any obstacles that might occur.

5. Duration of work

The duration of the assignment is 50 workdays spread over a period of 3 months from date of Contract signature.

6. Duty station

The assignment requires deskwork, research, meetings and fieldwork. The consultant is expected to consider that he/she will perform his/her duties at the LEPAP Office at the MoE in Beirut, if requested, or under home office arrangements. The Consultant will perform the needed work using his/her own property and technology and hold direct responsibility for the quality of delivered outputs.

The consultant shall make his own arrangements for all transportation required to perform the required tasks. When possible, the project will provide support service and/or logistical support (excluding transportation to the office and communication costs) during this assignment.

7. Requirements for experience and qualifications

I. Academic Qualifications:

Bachelor's degree in Computer Science, Information Technology or other closely related field. Master's degree is an asset.

II. Years of experience:

The required minimum years of relevant experience is 7 years.

III. Technical experience:

- Proven work experience as a data base developer;
- Experience in software development and user interface web applications;
- Strong experience in SQL Database;
- Experience in handling Net Framework, JavaScript, HTML and/or Oracle.

IV. Competencies:

- Excellent verbal and written communication skills;
- An ability to understand front-end users requirements and a problem-solving attitude;
- Comfortable in working in an enterprise environment;
- Excellent analytical and organization skills;
- Good command of French is an asset.

8. Scope of price proposal

The Consultant is expected to submit a financial proposal based on a Lump Sum amount including fees and foreseeable expenses.

- Lump sum amount must be “all-inclusive”¹;
- The contract price is fixed regardless of changes in the cost components.

The UNDP shall effect payments to the consultant against each deliverable after acceptance by the Project M&E Officer and upon submission of a certificate of payments.

¹ *The term “all inclusive” implies that all costs (professional fees, travel costs, living allowances, communications, consumables, etc.) that could possibly be incurred by the Contractor are already factored into the final amounts submitted in the proposal.*