

Terms of Reference

For Addendum to the Environmental, Social, and Cultural Heritage Impact Assessment for the Hebron Regional Wastewater Management Project.

A. Introduction

This Terms of Reference (ToR) presents the terms of assignment for developing an addendum to the Environmental, Social, and Cultural Heritage Impact Assessment (ESCHIA) for the Hebron Regional Wastewater Management Project financed by the World Bank, the French Development Agency (AFD) and the European Commission. Per the Bank Operational Policy OP 4.01, the Project is assigned environmental category “A”. The key features of the World Bank Policy OP 4.01 are summarized in Annex 1 and the contents of the ESCHIA are summarized in Annex 2. For further details on the World Bank Safeguards and Health and Safety Policies and Procedures, please consult the World Bank External Website.

In 2013, the Palestinian Water Authority commissioned a consultant to prepare an ESCHIA in the course of preparation of the Hebron Regional Wastewater Project. The ESCHIA was revised in 2014. The ESCHIA was disclosed by the client and on the World Bank External Website in October 2014. The ESCHIA can be accessed at the following link www.worldbank.org/projects/P117449/gz-west-bank.wastewater-management-project?lang=en.

Since 2014, some baseline conditions and some design aspects of the Hebron wastewater treatment plant (WWTP) project have changed. In addition, some municipalities of the Hebron Governorate raised concerns with the Palestinian Water Authority (PWA) and the Environmental Quality Authority on design aspects of the project and their environmental impacts on the surrounding communities of the WWTP, such as distance to residential areas and related impacts of odor, pest hazards and mosquito infestation, presence of marble cutting slurry and carcinogenic chromium in sewage, discharges of sewage downstream of the WWTP with a potential of pollution of the effluent, water wells pollution, damage to agricultural lands, among others.

B. Objectives of the Assignment

- (i) The Consultant will update the assessment and mitigation plans in the ESCHIA taking on-board the latest aspects of the design of the WWTP as detailed in the bidding document for Design, Supply, and Install contract (access to the bidding documents will be granted to the selected consultant who is invited to submit a proposal). The Consultant will address specific aspects related to baseline conditions, environmental and social impacts and mitigation measures.
- (ii) Carry out all necessary consultations, at least two rounds of consultation sessions per the World Bank Operational Policy OP 4.01. The consultation plan should be inclusive to all stakeholders and project affected parties (PAPs) per the applicable Palestinian Laws and World Bank Policies.

C. The Project Context

A pressing environmental and public health issue in the West Bank is that most of the sewage from the main Palestinian centers of population runs untreated through populated areas and environmentally sensitive zones. Hebron city generates more than 10,000 cubic meters (CM) per day of sewage causing contamination of the eastern aquifer, and high environmental and health risk to the communities along the sewage stream in Wadi As-Samen, which runs south towards the green line with Israel. The Israel Water Authority (IWA) treats the sewage from Wadi As-Samen in a tertiary WWTP at Shoket in Israel. The sewage treatment costs are charged to the Palestinian Authority (PA) and the effluent is not used for irrigation in the West Bank.

The Storm water, Domestic Wastewater and Industrial Wastewater Master Plan for Hebron developed in 2001 by the United States Agency for International Development (USAID) identified pollution of the eastern-aquifer caused by untreated sewage from Hebron Municipality and other communities in the Governorate (elevated nitrate concentrations in some potable water wells were found). Detailed aquifer modeling showed that the continued pollution of the aquifer would compromise provision of safe potable water for resident. Therefore, the Master Plan proposed a comprehensive, phased program to addressing these regional wastewater management challenges with the total costs exceeding US\$ 100 million.

The first phase of the program would address the immediate needs of treatment of the existing sewage stream coming primarily (80 percent) from Hebron Municipality, through construction of the first phase of the Hebron regional wastewater treatment plant (HR WWTP). The second phase would consist of an agricultural project for the construction of an irrigation scheme for reuse of the treated effluent adjacent to the WWTP. Phase 3 would finance the construction of sewerage networks and associated treatment and reuse capacity for the remaining unserved parts of the Hebron Municipality, while phase 4 would finance sewerage, treatment and reuse capacity for other communities. The plan and the first phase were approved by the PWA and the JWC, and the Civil Administration issued permits.

The Hebron Regional Wastewater Management Project-Phase 1 (HRWMP-1) covers the activities of the first phase of the Master Plan - the construction of a WWTP treating the existing and projected sewage flow in Wadi As-Samen from Hebron Municipality.

Hebron Municipality and USAID in 2012 began a program to manage wastewater from stone-cutting operations in Hebron's industrial area. Pre-treatment facilities at stonecutting factories were installed and enforcement measures were put in place to eliminate illegal disposal of industrial wastes in the sewer network and streams. The program successfully contained most of the stonecutting waste and was turned over to the Municipality and the PWA for management in July 2013. In the same month, USAID completed a Hebron Industrial Discharges Study that provides a strategic plan for comprehensive management of all industrial wastes from Hebron Municipality that is based on in-situ pre-treatment and strengthened regulation.

The HRWMP-1 has three components: (i) Wastewater Treatment Infrastructure, which would finance the detailed design and construction of a regional wastewater treatment plant south of Hebron, including extension of the sewer trunk line; (ii) Sustainable Management, Operation, and Maintenance of Wastewater Services, which would finance services for operation and maintenance (O&M) of the WWTP and building the capacity of local institutions for long term sustainable management, and with Additional Financing in FY2016 to finance on a declining basis the O&M costs of the WWTP, including staff costs, equipment and supplies; and (iii) Project Management, Monitoring and Evaluation, and Master Plan Implementation Planning, which would finance project management and implementation activities, monitoring and evaluation, and also provide resources for studies and preparatory activities for subsequent investments in wastewater management for the Hebron Governorate within the overall context of the Master Plan.

Component 1: Wastewater Treatment Infrastructure. This component will finance the design and construction of the HR WWTP providing secondary treatment with a design capacity of 15,000 CM per day in the first phase. This capacity accommodates the wastewater flow of 10,000 CM per day from Hebron Municipality, as measured in 2011, as well as pre-treated industrial wastewater and additional wastewater loads from currently connected communities within a 10-12 years planning horizon. The plant will be designed in a modular way, allowing for the installation of additional treatment capacity up to 35,000 CM per day, for future connections of communities in the wider Hebron Governorate. The design will also accommodate the option to add tertiary treatment to further upgrade the effluent quality. The treated effluent will meet the PA's standards for secondary treatment, as agreed by the Israeli-Palestinian Joint Water Committee (JWC), which allows for disposal to the wadi and for effluent reuse in restricted forms in agriculture irrigation on currently un-irrigated lands adjacent to and downstream from the WWTP. Sludge from the WWTP will be treated and dewatered to a degree that will allow for land filling. The HR WWTP will include: (i) intake and pre-treatment (grit and screening removal); (ii) biological treatment with nutrient removal; (iii) filtration and disinfection; (iv) sludge thickening; (v) sludge stabilization for reducing vector attraction and odors; and (vi) dewatering systems for obtaining a dry sludge that can be hauled away. The HR WWTP is planned to be constructed at a site of eleven hectares (ha), owned by the PA, 4 km downstream from Hebron city. The contract for the HR WWTP includes the design, supply, installation and operation for five years prior to hand-over.

Component 2: Sustainable Management, Operation, and Maintenance of Hebron Regional Wastewater Treatment Plant. This component will finance technical assistance to train and build the capacity of the Hebron Municipal Water and Wastewater Management Department, in order to have the Municipality fully capable to manage the part of the HR WWTP contract covering the O&M of the WWTP plant during a five year time-frame and enhance the capacity of the Department to obtain financial sustainability of water and wastewater services.

Component 3: Project Management, Monitoring and Evaluation and Master Plan Implementation Planning. This component will finance project management staffing and costs incurred by the PWA and the establishment of a Technical Operations Unit (TOU) in Hebron Municipality.

An access road to the site of the future regional treatment plant, to the south of Hebron city, already has been completed, with financing provided through the USAID.

The PWA is the implementing agency for the project. The PWA has a national Project Management Unit (PMU) which is currently managing a number of similar projects in West Bank and Gaza.

D. Scope of Tasks

The ESCHIA provides description of the project, baseline conditions, legal and policy framework, impacts and mitigation measures, a Cultural Heritage Management Plan, Environmental Management Plan, and Social Management Plan. The Consultant will provide an updated project description with the current status of project design.

Specifically, the Consultant will focus in his assignment on the following elements of the ESCHIA:

- Handling of slurry from stone cutting and chromium discharges by tanneries. It was assumed in the original ESCHIA that the discharge of slurry from stone cutting, and chromium from tanneries into sewers in Hebron would be terminated by the time the Project would be operational. However, there exists a high risk that this practice will continue at the time the WWTP becomes operational. The slurry may severely affect aeration and biological processes in the WWTP, and the discharge of chromium would render sludge unusable for agricultural use.
- Waste management including landfills and illegal dumps. At the time of the finalization of the original ESCHIA, two sites were put forward as potential options for waste disposal, i.e. the Yatta dumpsite and the Al Menya sanitary landfill. Since then, the sanitary landfill in Al Menya was built and has been operational since 2015. It needs to be explored whether sludge and other waste from the WWTP would be accepted in Al Menya. Otherwise, alternative disposal sites should be considered.
- Affected population and distance to residential areas needs to be updated as these have changed since the finalization of the ESCHIA. These changes in baseline are likely to affect significance of the predicted impacts, and effectiveness of mitigation measures.
- Odor, pest, mosquito infestation impacts, impacts on agricultural lands downstream the WWTP, and the risk of recontamination of effluent, including from Al Fawar refugee camp and villages. The increasing number of residents living less than 3km from the proposed WWTP, and the increased volume of sewage downstream are likely to affect the original impact predictions.

- The growing interests of the neighboring municipalities in using the proposed WWTP raises the need to include modifications in the original design of the WWTP to enable discharge of sewage from mobile tankers.

To fulfill the objectives of this assignment, the following tasks should be carried out by the Consultant:

Task 1: Review and update of data and analyses

1. The Consultant will carry a comprehensive review and update of the data and analyses presented in the ESCHIA relative to the above-mentioned specific points. The update should consider the current baseline conditions, the project design presented in the bidding documents for the Design, Supply, Install of the WWTP, and the ongoing Master Plan Study (in coordination with the consultancy firm preparing the Master Plan).
2. The update should examine the baseline data presented in the ESCHIA, identify and conduct additional data collection if necessary. For this, the Consultant will conduct the necessary site visits, desk reviews, structured interviews, and any necessary measurements.
3. The Consultant should examine the environmental and social impacts during the pre-construction, construction, and operation phases of the project. The Consultant should analyze how the changes to baseline conditions and design aspects affect the short-term impacts, long-term impacts, positive and negative impacts, direct and indirect impacts, reversible and non-reversible impacts, magnitude of impacts, impacts significance, cumulative impacts, including the impacts of concern to the municipalities in Hebron Governorate.
4. The Consultant will update the mitigation measures aiming at reducing the impacts of the Project during the construction and operation phases of the Project. Residual impacts after application of mitigation measures should be identified and analysed.
5. The Consultant will update the monitoring plan during the construction and operation phases of the Project, including institutional responsibilities, monitoring frequency and parameters, monitoring arrangements and existing capacities.

Task 2: Stakeholder consultations

6. The Consultant will prepare a Consultation Plan, as part of the Inception Report (see Section G. Deliverables). This plan will detail the methodology to be used to engage with the different stakeholders; the stakeholders to be invited to participate, ensuring a high level of diversity and representativeness (referring to gender aspects, or geographical areas, for instance); information on the consultations' tentative date and place; and information on how the consultations will be organized and advertised.
7. The Consultant will conduct stakeholders and community consultation process (at least two consultation sessions) focusing on the elements presented in the Scope of tasks, in

compliance with requirements of the Palestinian regulations and policies, and the relevant World Bank Policies. The consultation process will facilitate the discussions and communications between the stakeholders and PAPs during the assignment. The Consultant will prepare and conduct at least two workshops and prepare communication materials, as necessary, to facilitate the discussions between all stakeholders and PAPs.

8. The Consultant will document the grievance redress mechanism (GRM) related to project activities in place, discuss it with the stakeholders, and propose recommendations to strengthen it.
9. The Consultant will document all consultation materials, including minutes of meetings, photos, and presentations. The Consultant will summarize outputs of the consultation sessions, and include it in the ESCHIA addendum. Other consultation materials should be presented as annexes to the ESCHIA addendum.

Task 3: Addendum to ESCHIA

10. Based on the review and updates, the Consultant will prepare a draft addendum to the ESCHIA and submit it for review by the client, stakeholders, PAPs, and financiers. The addendum is to be comprehensive, coherent, clearly structured and presented. The document shall focus on methodologies used, findings, analyses, conclusions and recommended actions, supported by summaries of the data collected and citations for references used in interpreting those data. The Consultant will work closely with the consultancy firm preparing the Master Plan for Hebron Waste Water Management for synchronization of efforts. The draft addendum should meet the requirements of the relevant PA regulations and policies, and the World Bank Policies and Procedures (OPs and BPs) and the World Bank Guidelines on Environmental Health and Safety, and best International Industrial Practices. The Baseline chapter should be updated with all new data and information collected. Project description should be expanded with types and duration of works, inputs from the Master Plan, inputs from the Project Bidding Documents, and updates on design. The Consultant will present separately in the addendum the impacts, mitigation measures, and monitoring plans designating separate section to each. The Environmental and Social Management Plan (ESMP) summary tables should be updated to reflect the updates made in the ESCHIA addendum.

E. Project Team

Implementation of the assignment will require cooperation of multidisciplinary team of international and local specialists. Cost of the accommodation, international and local travel, interpretation, and translation of the ESCHIA Executive Summary will be covered by the Consultant. The cost of public seminars will be covered by the Client. The International experts are expected to spend at least 90% of their time input in the West Bank.

The Consultant should deploy at least the following key staff:

- ***Team Leader – EIA Specialist (international expert). 2,5 months input.***
 - A Master degree in environmental science or environmental engineering.
 - At least ten years of professional experience in team leader positions.
 - At least 7 years of experience in preparation of ESIA studies including at least 5 ESIA for WWTP.
 - Strong experience in conducting public consultations and mediations.
 - Experience with the World Bank Safeguards Policies.
 - Experience in the wastewater sector.
 - Fluency in spoken and written English.
 - Excellent communication and reporting skills.
 - Knowledge of Arabic is an advantage.
- ***Wastewater Treatment specialist (international expert). 1 month input.***
 - Ph.D in wastewater treatment.
 - Extensive experience in design and operation of WWTP, sewerage system, domestic and industrial water collecting and treatment, reuse, irrigation, and planning.
 - Excellent command in English.
 - Experience in conducting ESIA assessment.
- ***Social Specialist. Local expert. 1 month input.***
 - Master degree in Social Sciences.
 - At least five years' experience in social impact assessment.
 - Experience with the World Bank safeguard policies.
 - Excellent communication and reporting skills.
 - Fluent command of Arabic and good command of written and spoken English.
- ***Conflict Resolution/Communication Specialist (international Expert). 1 month input.***
 - At least MSc/MPhil degree in communication, public relations or psychology.
 - 10 years of experienced in public consultations.
 - Experience in ESIA processes.
 - Fluent command of English.
 - Good command of Arabic and advantage.

F. Duration and location of the project

Duration of the project is 3 months. The project location is the West Bank.

G. Deliverables

- Inception Report presenting the Consultant work plan and comments on the ToR. The Inception report should include the assignment methodology and a Consultation Plan. It should be submitted to the client review and approval within 2 weeks of the assignment start. The Inception Report should be short and concise.
- Draft ESCHIA addendum Report submitted to Client for review within 10 weeks after the starting date of the assignment. Content of the Report should be consistent with the World Bank safeguards requirements.
- Final ESCHIA addendum report (with updated ESMP) addressing comments received on the draft addendum to ESIA/ESMP from Client, stakeholders, and financiers within 13 weeks of the commencement of the assignment. The final ESCHIA Addendum Report should be submitted in English and in Arabic (Executive Summary) both electronically and in 5 hard copies.