



Environmental and Social  
Impact Assessment  
(ESIA)  
&  
Environmental and Social  
Management Plan  
(ESMP)

For

Gaza Water Supply and Sewage  
Systems Improvement Project (WSSSIP)  
Phase 1 and Additional Financing (AF)

Final Report  
English Executive Summary

September 15, 2014  
AF revision prepared by PMU

Prepared By  
Engineering and Management  
Consulting Center



This Study  
prepared for  
the  
PWA/CMWU



Funded By the  
World Bank



# Environmental and Social Impact Assessment (ESIA) & Environmental and Social Management Plan (ESMP)

for  
Gaza Water Supply and Sewage Systems Improvement Project  
(WSSSI)  
Including AF1

This Study prepared  
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## Final Report English Executive Summary

September 2012

## Revised Final Report including AF1 September 15, 2014

## Executive Summary

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This Environmental and Social Impact Assessment and Management Plan was prepared for “Gaza Water Supply and Sewage Systems Improvement” to satisfy the World Bank Operational Policy 4.01 (January 1998). PWA as the owner of the project proposed the following components to be included in the project; rehabilitation and expansion of the water supply networks to support transmission of additional supply resources, and to improve the efficiency and operational management of the networks. The World Bank and Islamic Development Bank have cooperated and signed a principle agreement to finance the project components.

The project is categorized as a “B” project in accordance with the World Bank Operational Policy 4.01 (January 1998) and requires the preparation and implementation of an Environmental and Social Management Plan (ESMP). For category “B” projects, no major negative environmental impacts are envisaged since the project will invest in activities that support rehabilitation and improvements of the infrastructure.

The components studied are; (1) rehabilitation and expansion of networks, (2) rehabilitation of water wells, (3) upgrading of DeirEl Balah desalination plant, (4) district meters replacement, (5) upgrading and maintenance of wastewater

pumping stations, (6) construction of warehouse and workshop, & (7) technical and operational assistance for CMWU. Most of the project components are located in the middle and southern Governorates of the Gaza strip.

This ESIA/ESMP is being amended to include additional financing for WSSSIP, would help finance the cost associated with the scaling-up of project activities in response to circumstances arising during implementation. Specifically it would finance rehabilitating water and wastewater infrastructure damaged in Gaza as a result of bombardments and ground incursions by Israeli armed forces in the period of July 5 to August 26, 2014. The AF is requested by the Palestinian Water Authority (PWA) in consultation with the Gaza Coastal Municipality Water Utility (CMWU) to finance civil works, goods, consulting services, non-consulting services, training, operating costs and recurrent costs to: (i) conduct the most urgent repairs to damage water and wastewater systems in order to restore basic water and wastewater services; and (ii) restore and enhance the capacity of the CMWU to deliver these services. Overall damage to water and wastewater systems are assessed in the order of US\$ 34 million, with the proposed operation covering approximately 40% percent of the required repairs.

The Assessment and Management Plan are prepared to ensure that the project is developed in a sound manner and does not cause negative impacts to the environmental resources and social issues. Also, to coordinate the policies, plans, programs and decisions of various parties involved in the project during implementation and monitoring. The assessment includes a survey of the local applicable regulatory standards and guidelines, description of the existing environment, potential impacts of the development, mitigation measures that needs to be implemented, required training program, schedule of implementation, and cost of implementing the recommendations.

The environmental resources and social issues that are of particular interest to the study are surveyed. Also, site visits to the project sites are selected to assist in describing, assessing the existing conditions, and summarizing the related potential impacts.

Different significance levels for the impacts are reported. Most of the reported impacts are either negligible or minor impacts. However, other impacts; moderate and major, are limited in nature and will be avoided by providing clear instructions and measures for the implementing and monitoring agencies.

The projects are highly welcomed by the community. In spite of some concerns and limited impacts for the community, the project includes several benefits. The benefits include improvement of living

conditions, accessibility to infrastructure facilities and providing temporary and permanent job opportunities.

Potential impacts, mitigation measures, responsibility for execution, mitigation monitoring measures and methods, and monitoring and enforcement responsibility are presented.

In order to monitor the projects, coordinate the environmental training program and ensure that the activities are implemented in an environmentally sound manner, an environmental expertise will be established within PWA and CMWU. A permanent staff will be appointed, part time environmental advisor(s) contracted will support occasionally the CMWU staff through on-the-job training, and overseas programs will be conducted. The capacity building and training program focuses on the preparation and use of the appraisal/mitigation form, use of environmental guidelines, and implementation of the mitigation measures. Safety measures during construction and operation, proper waste disposal, and cleaning measures during construction are also included in the recommended training program.

The Management Plan includes hiring an environmental expert, capacity building and training programs, periodic environmental assessment for the project components.

In conclusion, the population of the Gaza Strip is increasing day by day, and as a result, the underground water resources

are getting worse and worse in terms of quality and quantity. In the light of this tragedy, rehabilitation and upgrading of the Gaza water resources are of utmost priority to the Palestinian community.

The Engineering and Management Consulting Center (EMCC) as a local

consulting firm was commissioned to prepare the Environmental and Social Impact Assessment and Management Plan for the parent project, WSSSIP. All revisions pertinent to the AF have been done by the PMU.