Luxembourg, 22.10.2013

Environmental and Social Data Sheet

Overview

Project Name:	Dhaka Environmentally Sustainable Water Supply Project
Project Number:	2013 0229
Country:	Bangladesh
Project Description:	The project will develop a new sustainable surface water resource that will contribute to meeting an increasing water demand in Dhaka and enable a reduction in the extraction from over-exploited groundwater resources. The project will increase the security of water supply and improve the resilience to adverse impacts from climate change.
EIA required:	yes
Project included in Carbon Footprint Exercise[1]:	no

Summary of Environmental and Social Assessment, including key issues and overall conclusion and recommendation

The project will establish new surface water supply to four zones in North Eastern Dhaka in Bangladesh. This will allow reduction of the non-sustainable extraction from the large well field that currently supplies ca. 80% of the water to Dhaka. The project will also contribute to meet an increasing demand from the population in Dhaka, which is estimated to grow from 12 million today to 24 million in 2030. The project will increase both the security of water supply and the number of hours of service per day, with related health and environmental benefits. It will also increase the resilience to the negative impacts of climate change, in particular droughts.

A preliminary Environmental Assessment as well as an Initial Environmental Examination (IEE) have been prepared for the project. The IEE has been prepared in line with the environmental and social safeguards policies of the Asian Development Bank (ADB) and the Government requirements.

The studies conclude that there are no significant or irreversible environmental impacts envisaged as a result of the project interventions. Furthermore, the project will not affect any environmentally sensitive areas. The impacts are largely construction related and can be addressed through adoption of good engineering practices and appropriate mitigation measures during project implementation. An Environmental Management Plan (EMP)[2] has been prepared based on the outcomes of the environmental assessments. Both the IEE and EMP will be updated by the contractors based on the final designs as basis for application for final Environmental Clearance.

Whereas efforts have been made to select pipeline routes that minimise resettlements and loss of income and livelihood, 3,451 households will be affected with 1,390 households needing to be either involuntarily resettled or losing more than 10% of their economic assets. A Resettlement Action Plan (RAP) has been prepared to mitigate and remedy impacts, including through compensation and support for resettlement according to ADB safeguard policies and Bangladeshi rules and regulations. Extensive consultations are already underway and a grievance mechanism is also in place.

The new Water Treatment Plant will treat water to at least WHO and Bangladesh standards, with a recommendation to introduce even stricter standards for turbidity to be decided before implementation starts.

Overall the project has a positive net social and environment impact, however short term impacts during construction, particularly related to resettlement and income loss need to be minimised through diligent application of the RAP as well as the EMP. The project is acceptable for Bank financing.

[1] Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100,000 tons CO2e/year absolute (gross) or 20,000 tons CO2e/year relative (net) – both increases and savings.

[2] Both the IEE and the EMP contains social assessments except involuntary resettlements which are covered in the Resettlement Action Plans.

Environmental and Social Assessment

Environmental Assessment

While the project components are not very technically complex, the scale and magnitude of facilities proposed trigger the need for an effective integration of environmental measures at all stages of the project.

There are no protected areas, forests, wetlands or, ecologically sensitive areas within or in the vicinity of the project sites. The proposed locations for intake at the Meghna River and the WTP at Gandharbpur are agricultural lands. The raw water transmission lines from the intake to the Gandharbpur WTP and a portion (4.5km) of the treated water mains from the WTP are proposed to be laid through agricultural areas and low lying areas. The other transmission mains for raw and treated water are routed along existing roads within the road reserves.

The proposed abstraction for the 2000 MLD intake accounts for 0.6% of the lean flow, and would have negligible impacts on ecological flow and downstream uses. Inputs of a fisheries expert as part of the detailed design is proposed, to provide inputs to the design of intake screen to minimize impacts on fish at the intake from Meghna River.

Key construction stage impacts identified and addressed in the IEE include: (i) loss of productive agricultural lands and preservation of topsoil; (ii) impacts on low lying areas and water bodies wherein protection measures are required to minimise impacts on water quality, disposal of wastes/debris on to the water bodies, and potential disruption of flows; (iii) air, noise, and vibration impacts due to construction vehicles, equipment, and machinery in the vicinity of construction site and inhabited sections, in addition to dust control during construction activities; (iv) impacts on the river courses and the water quality during the construction of the transmission mains across the rivers Sitalakhya and Balu and other smaller streams; (v) management of spoil disposal due to the excavation for the transmission mains; (vi) safety measures during construction including traffic diversions; (vii) management of sites temporarily used for construction activities, including borrow areas, construction camps, etc., and rehabilitation of the sites after completion of the temporary use; and (viii) impacts on community health and safety hazards posed to the public, specifically in inhabited areas.

Watershed management for source protection will involve good interagency coordination led by the DoE. To provide inputs for effective interagency coordination, a water quality monitoring programme at locations upstream of the intake is proposed during the implementation, along with semi-annual joint site visits by DWASA and DoE to the upstream locations.

The project site for the distribution network improvement component is located in the built-up area of Dhaka City and do not affect any environmentally sensitive areas. This project component was planned to minimise environmental impacts.

The promoter Dhaka Water and Sewerage Authority (DWASA) has developed a sewerage master plan with two wastewater management projects where the investment funding has already been secured. These projects will establish waste water treatment capacity to cater for the increase in wastewater following augmentation of the water supply.

A project Management Unit (PMU) has been established within DWASA that will comprise environmental and social expertise.

Social Assessment

For the water treatment plant and related transmission pipelines, a total of 77.7 ha of private land will be acquired and an additional 47.9 ha of government land will be needed to construct the intake facilities and a total 34.5 km of raw and treated water transmission mains. The proposed WTP will use land acquired by DWASA in 1985, and which is still under cultivation. A total of 3,451 households will be affected due to land acquisition and resettlement activities. 1,390 households will experience significant impacts on their livelihood in terms of either being physically displaced or losing more than 10% of their economic assets. In addition, about 1,600 agricultural laborers may temporarily lose their income.

A draft RAP has been prepared for the water supply component to mitigate and remedy the land acquisition, resettlement and loss of livelihood impacts. Compensation for both resettlement and loss of livelihood will be paid to affected persons, both title and non-titled owners according to Bangladeshi and ADB rules and regulations. For the distribution reinforcements a Resettlement Framework was prepared

since the exact location of the works has not been determined yet. The RAP implementation will ensure a gender sensitive approach in planning, management and operations of resettlement.

For the distribution network improvement component, the construction will cause some social impacts and access disruptions due to construction activities, as residential and commercial establishments exist along the project corridor. There is no land acquisition required so the main impact is the potential reduction in the income of shops and other businesses affected by construction activities. To minimise public disturbance, trenchless techniques will likely be used for replacement and rehabilitation as well as network extension and service connections to a large extent. Thus impacts will be limited to small-scale temporary reduction in income where customer access is impeded. The RAP addresses any potential temporary loss of income or livelihood during construction.

The Government will ensure that contractors comply with all applicable labor laws and core labor standards, including freedom to associate and workforce grievance mechanisms.

Public Consultation and Stakeholder Engagement

The stakeholders were involved in the development of the IEE through consultations with the communities, affected persons and institutional stakeholders. Eight public consultations and a number of small focus group discussions were undertaken with the affected peoples on the purposes and benefits of the project's activities and the possible impacts to their livelihood and daily activities. Women and other vulnerable groups were also consulted concerning the specific project impacts and their livelihood aspects. The views expressed were incorporated into the IEE and the planning and development of the project. The consultation process will be carried forward during the subsequent stages of the project design and implementation by the PMU with support of the implementing NGO for the Resettlement Plan and Management and Supervision Consultant (MSC).

A separate resettlement plan was prepared for the distribution network improvement component, to mitigate temporary impacts that may occur to the road side vendors and hawkers during the construction. No land acquisition will be required for this activity. Separate NGO and MSC will be recruited to support DWASA in updating and implementing the resettlement plan. The social impact assessment confirmed that there are no indigenous groups in the project sites.

Consultation and engagement will continue throughout project implementation and any complaints or disputes related to the project will be handled in accordance with the grievance redress mechanism developed for the project.

Other Environmental and Social Aspects

A Grievance Redressal Mechanism (GRM) will be established to receive, evaluate and facilitate the resolution of affected people's concerns, complaints, and grievances. The GRM aims to provide a time bound and transparent mechanism to voice out and resolve social and environmental concerns linked to the project.

Construction of the water treatment plant will require relocation of some graves. This will be carried out according to Bangladeshi regulations and in consultation with the affected families.