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Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 23-May-2017 | Report No: PIDISDSC20145



BASIC INFORMATION

A. Basic Project Data

Country Bangladesh	Project ID P161432	Parent Project ID (if any)	Project Name Dhaka Sanitation Improvement Project (P161432)
Region SOUTH ASIA	Estimated Appraisal Date Dec 11, 2017	Estimated Board Date Aug 30, 2018	Practice Area (Lead) Water
Financing Instrument Investment Project Financing	Borrower(s) People's Republic of Bangladesh	Implementing Agency Dhaka Water Supply and Sewerage Authority	

Proposed Development Objective(s)

The Proposed Project Development Objective (PDO) is to provide improved sanitation services in select areas of Dhaka city.

Financing (in USD Million)

Financing Source	Amount
Borrower	30.00
International Development Association (IDA)	300.00
Total Project Cost	330.00

Environmental Assessment Category A-Full Assessment	Concept Review Decision Track II-The review did not authorize the preparation to continue
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Other Decision (as needed)



B. Introduction and Context

Country Context

1. Bangladesh has experienced rapid economic growth. Since 2010, Bangladesh's economy has grown at nearly 6.5 percent per year. With per capita income of US\$1,409 in 2016, it is well above the lower middle income country category threshold which it crossed in FY14. Social and human development has accompanied the economic growth and the country has achieved considerable success in reducing extreme poverty since its independence in 1971. Bangladesh's performance against the Millennium Development Goals (MDG) targets has been impressive, and the country has met the MDG targets for halving incidence of extreme poverty. The poverty incidence based on the international \$1.90 per capital per day has reduced from 44.2 percent in 1991 to 18.5 percent in 2010. More than 15 million people have moved out of extreme poverty in the past two decades. In addition, there has been significant progress on other human development indicators such as improved literacy, and increased life expectancy.
2. With an estimated population of 162 million in 2015, Bangladesh is one of the most densely populated countries in the world. The total population of the country in 2020 and 2025, is projected to be 172 million and 183 million, respectively. The population growth is increasingly concentrated in urban areas. Between 2000 and 2008, Bangladesh experienced faster urbanization than South Asia as a whole. The population projections also indicate that by 2050, about 52 percent of the country's population will live in urban areas.
3. Dhaka has played a key role in Bangladesh's growth trajectory. With a population of over 12 million, Dhaka is one of the largest and fastest growing cities in the world. It offers significant employment opportunities, representing about 35 percent of the nation's GDP. While Dhaka is the center for manufacturing, commerce and construction for the country, the city's rapid growth has also led to considerable infrastructure and environmental challenges.
4. Bangladeshi cities, including Dhaka, are characterized by an infrastructure deficit and poor service delivery, often resulting in poor living conditions. For example, Dhaka has over 3.5 million people living in low-income communities, where access to services such as water supply, sanitation, and health care is limited. Apart from Dhaka, many cities have unreliable water sources and the services are intermittent. In 2015, 32 percent of Bangladesh's urban population had access to piped water services and 55 percent had access to other improved water sources. About 28 percent of the population continue to use shared sanitation facilities and 10 percent use unimproved facilities. Across the urban centers of Bangladesh, including Dhaka, there is no systematic excreta disposal and treatment system. Sound planning and urban development is still a challenge.

Sectoral and Institutional Context

5. Bangladesh achieved the MDG target to halve the population without access to improved drinking water sources by ensuring that an additional 65 million people gained access to improved water sources between 1990 and 2015 (JMP, 2015). However, only 32% of the country's urban population has access to piped water supply, most of which is concentrated in the major cities. The country also made remarkable progress in improving sanitation access, but could not achieve the sanitation MDG targets. Access to sanitation in urban areas have increased from 59 percent in 2004 to 84 percent in 2014. However, 2015 Joint Monitoring Program (JMP) data show that, 39 percent of the total population continues to use shared or unimproved sanitation facilities. A recent World Bank study (2016) found that the bottom 40 percent of wealth quintile in the country consistently has the worst coverage of all tiers of WASH service and are served the least in the majority of districts, including Dhaka, compared to the top 60 wealth quintile. In addition, no urban center in Bangladesh is able to provide services



across the full sanitation chain, including safe collection, transportation and treatment of fecal sludge or waste water.

6. Bangladesh is estimated to be losing about US\$ 3.56 billion due to health-related economic impacts of inadequate sanitation (WSP, 2013). Health-related productivity impacts of inadequate sanitation are close to US\$ 456 million. Studies have found that very young children (below five years) and poor households bear the highest burden of poor sanitation. The estimate losses for bottom 40% households are equivalent to 71% of the total national impact.
7. There are multiple institutions responsible for water supply and sanitation in Bangladesh. At the national level, the Local Government Division (LGD) of the Ministry of Local Government Rural Development and Cooperatives (MoLGRD&C) is responsible for the overall development of the Water Supply and Sanitation (WSS) sector. While the Dept. of Public Health Engineering is the national agency for water and sanitation provision in rural and urban areas, Water Supply and Sewerage Authorities (WASAs) provide water and sewerage in the four cities of Dhaka, Chittagong, Khulna and Rajshahi. Dhaka Water Supply and Sewerage Authority (DWASA) is assigned the responsibility of providing water, sewerage and storm water drainage services in Dhaka city. The Dhaka City Corporations (DCCs, North and South) are responsible for solid waste management, fecal sludge management, and drainage. Thus, DWASA and DCC have overlapping roles in drainage and fecal sludge management. In addition a number of NGOs and private operators have also piloted community and public sanitation systems in association with local government agencies and WASAs.
8. Dhaka's existing sewerage system serves only about 20 percent of the city's population. Even in areas where sewerage exists, inadequate maintenance has hampered its effectiveness. Currently, the city has only one wastewater treatment plant which operates at less than half its capacity due to deficiencies in the collection network. Even though the majority of Dhaka's households are dependent on on-site sanitation systems, the city does not have a well-developed fecal sludge management system. The disposal of fecal sludge and septage from Septic tanks is very sporadic. About 30 percent of Dhaka's population disposes their sewage by connecting to the drainage networks and open channels which enters the city's surface waters untreated. Overall, only about 3-4% of the wastewater generated in the city is treated.
9. DWASA has begun to think strategically about wastewater management and expanding sanitation services. DWASA has prepared a Sewerage Master Plan which estimates that US\$ 1.7 billion is required to upgrade the sewerage system, improve on-site sanitation systems, including improvements in the containment, collection, transport and treatment of fecal sludge from on-site systems. Although the master plan indicates that the provision of sewerage services to cover all of Dhaka's urban area would be the ideal situation, it recognizes that this would not be a realistic strategy, based on the technical, socio-economic and financial implications of the interventions required.

Relationship to CPF

10. The proposed project is fully aligned with the World Bank Group's Country Partnership Framework (CPF) (FY16-20) for Bangladesh. The CPF prioritizes on three areas: growth and competitiveness, social inclusion, climate and environmental management. Drivers of growth include improving urban governance through the provision of affordable basic infrastructures and services, and improved water resources infrastructure. The CPF specifically identifies strengthening governance and institutional capacity in water sector as a priority to improve overall management and service delivery. The CPF also notes that supporting government efforts to strengthen governance systems is critical for building a strong policy dialogue to enhance Bangladesh's overall competitiveness.



11. The proposed DSIP will contribute to the CPF pillars of urban growth and environmental management. It will support the objective of improved delivery of basic service in the city of Dhaka and contribute the ongoing Bank's technical support to the overall Dhaka city development. The proposed project aims to strengthen DWASA's capacity to provide improved and equitable urban sanitation services. The project interventions will aim to improve the quality of wastewater discharged to rivers and canals, directly impacting water pollution in Dhaka city.
12. The findings from the recent Bangladesh WASH Poverty Diagnostic study indicate that lack of sanitation services and the resulting environmental pollution have the greatest impact on the poorest populations, which generally live in higher-risk areas. The proposed project's focus on improving the sanitation condition in the city by improving the sanitation service delivery and wastewater management, thereby is fully consistent with the Bank's twin goals of ending extreme poverty and boosting shared prosperity.

C. Proposed Development Objective(s)

Note to Task Teams: The PDO has been pre-populated from the datasheet for the first time for your convenience. Please keep it up to date whenever it is changed in the datasheet.

The Proposed Project Development Objective (PDO) is to provide improved sanitation services in select areas of Dhaka city.

Key Results (From PCN)

13. The proposed PDO results indicators for the project are listed as follows:
 - Number of beneficiaries (of which female)
 - Number of people with access to improved sanitation (number, gender disaggregated)
 - Volume of septage treated (to Bangladesh Environmental Quality Standard, GoB, 1997) (mld)
 - Reduction of Biochemical Oxygen Demand (BOD) attributable to project intervention (ppm; %)
 - DWASA's Sanitation directorate operational (index, to be defined during project preparation)

The indicators will be further developed during preparation

D. Concept Description

14. The proposed project will support the DWASA to implement the first phase of the Sewerage Master Plan. The master plan divides Dhaka into 7 catchments. It also provides a phased investment plan. The first phase includes the Pagla wastewater treatment plant; the eastern trunk main from Madhubag to Pagla, and investments for improved containment, transportation and treatment of fecal sludge where sewerage cannot be extended. The project will support DWASA in the implementation of improvements across the full sanitation services chain. While the physical infrastructure is constructed, the proposed project will focus on strengthening the institutional capacity of DWASA in managing sanitation in a holistic manner. Coordination among DWASA, the Dhaka City Corporation (DCCs), and Department of Environment (DoE) will be necessary for meeting the sanitation outcomes. The proposed project will include the following components:



15. *Component 1. Institutional Support for Sanitation Service Delivery.* This component will provide technical support for DWASA’s organizational strengthening for improving capacities in sanitation, strengthen DWASA’s operational performance, and lay out the road-map for future institutional strengthening. The component will also provide technical assistance at a sector level in order to help improve coordination amongst the key agencies operating in Dhaka that have roles and responsibilities with a bearing on sanitation outcomes. There will be two sub-components. The first sub-component will support operational and financial strengthening of DWASA to manage sanitation services. The focus will be to facilitate DWASA progress towards becoming a well-functioning utility that efficiently provides services to its customers. The second sub-component will help address institutional coordination issues in the sector. The sub-component will provide technical assistance to address coordination issues on sanitation between DWASA and the DCCs (North and South). It will also help clarify the role that the DoE plays as a regulatory body for effluent standards and pollution control. Specifically, the sub-component will help set up a policy and coordination mechanism among these agencies that potentially can be a long-term institutional mechanism.

16. *Component 2. Sewerage and Wastewater Treatment:* This component is expected to include majority of the sanitation investments, including (i) construction of the Pagla Catchment network; (ii) the reconstruction of the Madhubagh-Pagla trunk main; and (iii) construction and operationalization of the Pagla wastewater treatment plant (WWTP); (iv) upgrading the western trunk main and eight pumping stations. Each of the sub-sections will be assessed in details during preparation.

17. *Component 3. Fecal Sludge Management for On Site Sanitation.* This component will support in setting up of a fecal sludge management system to systematically collect, transport, treat and safely dispose fecal matter. This also includes regular desludging for on-site sanitation facilities (e.g. septic tanks and latrines) in selected parts of the Pagla catchment area where sewerage system will not be feasible in the medium term. There are few pilots already being implemented in other urban areas of Bangladesh that will be reviewed. Currently, the mandate for fecal sludge management is with DCC, whereas treatment is DWASA’s responsibility. This component will focus on clarifying institutional roles and developing and finalizing service delivery models that will work for Dhaka city. It will also determine an appropriate institutional coordination mechanism for fecal sludge management.

18. *Component 4. Project Implementation and Management Support.* This component would support project management activities and strengthen the capacity of the DWASA to coordinate and execute project activities, including complying with Bank fiduciary procedures and safeguards. It will also contribute to the acquisition of equipment and the project team’s operating costs.

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SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The proposed project will be implemented in the Pagla Catchment Area. The proposed Dhaka Sanitation Improvement Project will support upgradation of the Pagla Sewage Treatment Plant, construction and reconstruction of sewage collection network and septage management. The upgradation of the Pagla Sewage Treatment Plant (STP) will be



conducted within a restricted boundary. The exact location for all interventions will be unknown during the preparation stage.

B. Borrower’s Institutional Capacity for Safeguard Policies

DWASA will be responsible for all social and environmental requirements of the project. As DWASA is responsible for other Bank projects in Dhaka, it is familiar with the World Bank’s safeguard policies and already conducted an EIA on the Pagla STP. The PPF also kept the provision of hiring an independent environmental consulting firm who will conduct the EIA and prepare the EMF. This upfront work at the project concept stage will greatly facilitate the process of complying with Bank safeguard procedures. Since DWASA has experience with World Bank project, the performance of DWASA to address safeguard issue will be a part of the EIA.

While DWASA will be responsible for overall implementation of the project, a Project Management Unit (PMU) will be dedicated to implement the project.

With regards to social safeguards, DWASA has a long history of involvement with Bank projects with good outcomes on social safeguards management. DWASA officials have undertaken several trainings and participated in exposure visits related to understanding best practices in resettlement management.

Considering the extent of environmental and social impacts, the project will require close monitoring.

To this end, the following measures are being considered: (a) strengthening the PMU by including dedicated environmental and social staff and by bringing in staff members from the PMU of the first DWASA Environmental Sanitation project as they are familiar with Bank procedure; (b) providing training through workshops and otherwise during project preparation and implementation; and (c) hiring key safeguard consultants during the implementation stage of the project (d) opening a safeguard cell at DWASA which can ensure environmental safeguard compliance for DWASA implemented projects.

C. Environmental and Social Safeguards Specialists on the Team

Sabah Moyeen, Nadia Sharmin

D. Policies that might apply

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The project will rehabilitate the existing Sewage Treatment Plant. DWASA already conducted an EIA in rehabilitation and expansion of Pagla Sewage Treatment Plant (Pagla STP). DWASA already conducted an EIA for the STP in 2012. The EIA was conducted considering the trickling filter method. However, the team would like to go for DBO approach which may introduce different approach for the STP design. The existing EIA will be updated comparing the different STP operation method during implementation and operation. The project will also support construction/improvement of collection



		network of the Pagla catchment areas whose exact location will be unknown during the preparation stage. DWASA will develop an Environmental Management Framework for the Pagla catchments collection network according to Dhaka Sewerage Master Plan.
Natural Habitats OP/BP 4.04	No	This is a densely populated area. There is no natural habitat.
Forests OP/BP 4.36	No	There is no forest in the surrounding areas
Pest Management OP 4.09	No	
Physical Cultural Resources OP/BP 4.11	Yes	The proposed project will support construction/ improvement of collection network in the Pagla catchment areas whose exact location is unknown at this stage. The area is built in and densely populated. The existing physical infrastructure may be affected due to the construction of new collection network.
Indigenous Peoples OP/BP 4.10	No	As all interventions are within the Dhaka area, there will be no impacts involving indigenous people. Hence OP 4.10 Indigenous Peoples is not triggered for the project.
Involuntary Resettlement OP/BP 4.12	Yes	The project will support the development of a water treatment plant, laying of new trunk networks, and rehabilitation of existing and construction of new sewer networks. The construction of the WTP will be restricted to earmarked space within the existing Pagla plant site, and will not require any land acquisition or displacement of people. However, the network and sewer related interventions will take place in busy and densely occupied urban sites, and ensuing social impacts involving both permanent and temporary displacement, livelihood impacts, may be substantial. Use of new micro tunneling technology is expected to help minimize impacts as far as possible. OP 4.12 Involuntary Resettlement is triggered for the project. A full SIA (especially focused on structural stability aspects) and Resettlement Action Plan (for known network routes and sites) will be prepared. A Social Management Framework and Resettlement Policy Framework will be prepared to provide guidance for interventions with unidentified sites and/or future sub-projects.
Safety of Dams OP/BP 4.37	No	The project will not affect any dams.
Projects on International Waterways OP/BP 7.50	No	The project will not involve any international waterways.
Projects in Disputed Areas OP/BP 7.60	No	The project will be limited to only one city of Bangladesh and will not include any disputed area.



E. Safeguard Preparation Plan

Tentative target date for preparing the Appraisal Stage PID/ISDS

Feb 28, 2018

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

This will be finalized during appraisal.

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APPROVAL

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