



ASIAN DEVELOPMENT BANK

## Bangladesh: Dhaka Environmentally Sustainable Water Supply Project

Project Name	Dhaka Environmentally Sustainable Water Supply Project												
Project Number	42173-013												
Country	Bangladesh												
Project Status	Approved												
Project Type / Modality of Assistance	Loan												
Source of Funding / Amount	<table><tr><td colspan="2"><b>Loan 3051-BAN: Dhaka Environmentally Sustainable Water Supply Project</b></td></tr><tr><td>Asian Development Fund</td><td>US\$ 250.00 million</td></tr><tr><td colspan="2"><b>Loan 8292-BAN: Dhaka Environmentally Sustainable Water Supply Project</b></td></tr><tr><td>Agence Francaise de Developpement</td><td>US\$ 64.00 million</td></tr><tr><td colspan="2"><b>Loan: Dhaka Environmentally Sustainable Water Supply Project</b></td></tr><tr><td>European Investment Bank</td><td>US\$ 136.00 million</td></tr></table>	<b>Loan 3051-BAN: Dhaka Environmentally Sustainable Water Supply Project</b>		Asian Development Fund	US\$ 250.00 million	<b>Loan 8292-BAN: Dhaka Environmentally Sustainable Water Supply Project</b>		Agence Francaise de Developpement	US\$ 64.00 million	<b>Loan: Dhaka Environmentally Sustainable Water Supply Project</b>		European Investment Bank	US\$ 136.00 million
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Strategic Agendas	Environmentally sustainable growth Inclusive economic growth												
Drivers of Change	Governance and capacity development Partnerships												
Sector / Subsector	Water and other urban infrastructure and services - Urban water supply												
Gender Equity and Mainstreaming	Effective gender mainstreaming												
Description	<p>The project will provide more reliable and improved security of water supply in Dhaka by developing a new surface water supply scheme for supply augmentation, which includes the development of a water intake at Meghna River, a raw water transmission pipeline, a water treatment plant (WTP) at Gandharbpur with capacity of 500 million liters per day (MLD), a treated water transmission pipeline to the existing water supply network, and distribution reinforcements. The project will also include distribution network improvements to reduce nonrevenue water (NRW); and will improve the quality of water supply services, including support to low-income communities.</p>												
Project Rationale and Linkage to Country/Regional Strategy	<p>Water security. The government has set a target of providing safe water coverage and full sanitation throughout the country by 2015. However, achieving and sustaining this target remains a major challenge, with population growth in urban areas much higher than the national average. Dhaka Water Supply and Sewerage Authority (DWASA) provides water supply to about 90% of the population of 10.7 million in its service areas of about 400 square kilometers (km<sup>2</sup>), but is unable to provide sufficient quality and quantity of water to its beneficiaries despite continual efforts for improvements. It plans to expand its service areas to about 500 km<sup>2</sup> by 2020 and 600 km<sup>2</sup> by 2035, with a projected population of about 29 million. This requires significant capital investments to increase the level of supply, while ensuring long-term water security.</p> <p>Environmental sustainability. DWASA has been relying heavily on groundwater as a source of water supply, but current abstraction is beyond sustainable yields. Groundwater resources are depleting, and the water table is falling by 2-3 meters per year, which makes the lifetime of deep tube wells shorter, with 40-60 deep tube wells becoming inoperable each year. Groundwater extraction needs to be reduced from 1,900 MLD in 2012 to 1,360 MLD by 2020 and 1,260 MLD by 2025, when the overall supply needs to be increased to cater to the growing population in larger service areas. The main existing source of surface water is also being polluted rapidly. Out of the total 2,400 MLD currently provided by DWASA, 450 MLD is provided by the Saidabad WTP, which abstracts surface water from the nearby Sitalakhya River. The river water quality is deteriorating, particularly in terms of high ammonia concentration during the dry season owing to uncontrolled industrial effluent discharges into the river. The ammonia concentration is becoming higher than the design standard that a pre-treatment unit can satisfactorily treat to an acceptable level putting the sustainable operation of the WTP at serious risk. This makes it essential for DWASA to find an adequate and sustainable source of raw water for achieving its long-term development objectives. Meghna River will be a new source of water supply for Dhaka, which has good water quality and ample quantity even during the dry season.</p>												

Impact	Improved access to and quality of sustainable water supply services in Dhaka.	
Project Outcome		
Description of Outcome	More reliable and improved security of water supply in Dhaka.	
Progress Toward Outcome	Procurement of civil works for design-build contract of intake, pipeline and water treatment plant ongoing.	
Implementation Progress		
Description of Project Outputs	1. New surface water supply system developed. 2. Distribution network strengthened. 3. Project management and administration adequately supported.	
Status of Implementation Progress (Outputs, Activities, and Issues)	Procurement of civil works for design-build contract of intake, pipeline and water treatment plant ongoing. Recruitment of consultants ongoing.	
Geographical Location		
Safeguard Categories		
Environment		B
Involuntary Resettlement		A
Indigenous Peoples		C
Summary of Environmental and Social Aspects		
Environmental Aspects	<p>The project is category B for environment. Two initial environmental examinations (IEEs) with environmental management plans (EMPs), one for DNI and one for the new WTP with associated works, were prepared as part of the feasibility study in accordance with ADB s Safeguards Policy Statement (SPS, 2009) and government laws. The documents were disclosed on ADB s website and relevant information disclosed to project communities. The IEEs including EMPs will be updated and submitted to ADB for review and approval during detailed design. The IEEs concluded that no significant adverse environmental impacts are anticipated and any impacts will be mitigated through measures outlined in the EMPs. DWASA developed a sewerage master plan with two wastewater management projects, which will offset the incremental water supply caused by the project. The IEEs represent a single, unified document to ensure compliance with the rules and guidelines of ADB, AFD, EIB, and the government, and will be implemented as a single process regardless of the funding source. Consultant support will ensure that the PMU will have adequate capacity to manage environmental impacts. Environmental reporting to ADB will be done on a semi-annual basis. Consultation and public participation will continue throughout project implementation and any environmental grievances will be handled in accordance with the grievance redress mechanism developed for the project.</p>	
Involuntary Resettlement	<p>The project is category A for involuntary resettlement. For works related to output 1, a total of 192.4 acres of private land will be acquired and an additional 118.3 acres of government land will be needed to construct the intake facilities and a total 34.5 kilometers of raw and treated water transmission mains. The proposed WTP will use DWASA land. The land was acquired by DWASA in 1985 from the local land owners and currently 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 in their livelihood either by physically being displaced or by losing more than 10% of their economic assets. In addition, about 1,600 agricultural laborers may lose their income temporarily. A draft resettlement plan was prepared to mitigate the land acquisition and resettlement impacts. Eight public consultations and numbers of small focus group discussions (FGDs) have been 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. Meaningful consultations will continue with communities throughout implementation. Qualified and reputed NGOs experienced with land acquisition and resettlement activities will be recruited to support DWASA to assist finalization and implementation of the resettlement plan, and to conduct community development, livelihood and income restoration program for severely affected and vulnerable households. An external monitoring agency will be recruited by DWASA to monitor and evaluate the implementation of the resettlement plan. A separate resettlement plan was prepared for output 2, 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. A separate NGO and MSC will be recruited to support DWASA in updating and implementing the resettlement plan.</p>	
Indigenous Peoples	<p>The project is category C for indigenous peoples as the social impact assessment confirmed no ethnic minorities in the project sites.</p>	
Stakeholder Communication, Participation, and Consultation		

During Project Design	The project will improve access to water supply for the low-income communities, and ensure participation of the poor and women in consultation, planning for resettlement work, site selection of community connection points, community awareness raising, hygiene education, and formation of community-based organizations (CBOs). A gender action plan (GAP) and consultation and participation plan have been prepared. CBOs will be established and/or strengthened in low-income communities to enhance regularization of existing illegal connections and the introduction of new ones. Nongovernment organizations (NGOs) will be engaged to facilitate the participation of communities, including women and the poor.
During Project Implementation	The role of NGOs in the implementation and monitoring of the resettlement plan and the GAP has been incorporated. This includes awareness raising and community mobilization activities in low-income communities. NGOs will be engaged to assist the smooth implementation of resettlement plans and the GAP, including organizing CBOs, providing training, disseminating information, and raising awareness to strengthen the participation of the public including the poor and women.

### Business Opportunities

Consulting Services	Consulting services will be engaged using ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). Management, design, and supervision consultants will be engaged for the Gandharbpur WTP and related works (from intake to injection point and distribution reinforcements) and management and supervision consultants will be engaged for DNI in zone 6. An estimated 591 person-months (all national) of NGOs will be provided to (i) assist the implementation of the resettlement plans, (ii) undertake awareness campaign programs on water conservation and hygiene education in zone 6, and (iii) supporting improved access to low income communities in zone 6. Three teams of NGOs will be recruited to support resettlement implementation in different project areas. Consulting firms and NGOs will be engaged using the quality- and cost-based selection (QCBS) method. Out of two consultancy packages and three NGO packages, a standard quality:cost ratio of 80:20 will be used for one consultancy package and two NGO packages, while the ratio of 90:10 will be used for one large management, design, and supervision consultancy package and large NGO package, both relating to construction of intake, WTP, and raw water transmission line.
Procurement	All procurement of goods and civil works will follow ADB's Procurement Guidelines (2013, as amended from time to time). National competitive bidding will follow the government's Public Procurement Act, 2006 and Public Procurement Rules, 2008, with modifications and/or clarifications agreed between the government and ADB, as set out in the procurement plan. Since Asian Development Fund resources and cofinancing resources will be used to jointly finance an individual procurement package, universal procurement will apply to the jointly financed package only. ADB member country procurement eligibility restrictions will apply to other procurement packages financed solely by ADB.

Responsible ADB Officer	Norio Saito
Responsible ADB Department	South Asia Department
Responsible ADB Division	Urban Development and Water Division, SARD
Executing Agencies	<i>Dhaka Water Supply and Sewerage Authority</i> <i>Dhaka</i> <i>Bangladesh</i>

### Timetable

Concept Clearance	21 Feb 2012
Fact Finding	19 Jun 2013 to 01 Jul 2013
MRM	06 Aug 2013
Approval	22 Oct 2013
Last Review Mission	-
Last PDS Update	24 Mar 2015

### Loan

Financing Plan		Loan Utilization			
	Total (Amount in US\$ million)	Date	ADB	Others	Net Percentage
Project Cost	136.00	Cumulative Contract Awards			
ADB	0.00	-	0.00	0.00	%
Counterpart	0.00	Cumulative Disbursements			
Cofinancing	136.00	-	0.00	0.00	%

**Loan 3051-BAN**

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
22 Oct 2013	24 Apr 2014	23 Feb 2015	30 Jun 2020	-	-

Financing Plan		Loan Utilization			
	Total (Amount in US\$ million)	Date	ADB	Others	Net Percentage
Project Cost	474.90	Cumulative Contract Awards			
ADB	250.00	22 Oct 2013	33.93	0.00	15%
Counterpart	224.90	Cumulative Disbursements			
Cofinancing	0.00	22 Oct 2013	4.85	0.00	2%

**Loan 8292-BAN**

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
17 Oct 2013	29 Jan 2015	-	30 Nov 2020	-	-

Financing Plan		Loan Utilization			
	Total (Amount in US\$ million)	Date	ADB	Others	Net Percentage
Project Cost	64.00	Cumulative Contract Awards			
ADB	0.00	17 Oct 2013	0.00	0.00	0%
Counterpart	0.00	Cumulative Disbursements			
Cofinancing	64.00	17 Oct 2013	0.00	0.00	0%

Project Page <http://www.adb.org/projects/42173-013/main>

Request for Information <http://www.adb.org/forms/request-information-form?subject=42173-013>

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