



The Project will develop a sustainable water supply system in Khulna city, adapting to expected climate change impacts. Khulna city relies on groundwater and the project will introduce surface water as main water source to avoid excessive groundwater abstraction. Based on a study on climate change impacts, the design of facilities will be climate-proof, taking into consideration the increasing salinity intrusion along rivers due to sea level rise. The project will also strengthen corporate management system of KWASA, which has been recently established.

Water supply in Khulna. Citizens in Khulna have been suffering from limited access to water supply services. Out of approximately one million of population, only 17% has access to piped water supply, and the rest resorts to alternative sources, such as shared public taps and tube wells built privately. The existing system is old and poorly maintained, resulting in substantial leakage and low quality of water. A survey shows that even households connected to the network enjoy the water supply only for 5.3 hours per day, and 74% of households find the supplied quantity insufficient. As for water quality, 59% of the surveyed household perceived the supplied water as dirty, and 55% rate the service standard as very poor or poor. Many unconnected households rely on shared public taps and spend on average 90 minutes to fetch water everyday, imposing a particular burden on women who often fetch water for the whole family. The project will expand the access to water supply service by building a surface water treatment plant and extending the distribution network to cover the whole city.

Water resource management and climate change impacts. Currently, Khulna city relies entirely on groundwater for water source. Further abstraction of groundwater to meet increasing demand may undermine the sustainability of groundwater resource as experienced in Dhaka. The project will use surface water as main source to avoid unsustainable groundwater abstraction. Khulna locates in the coastal belt of Bangladesh, and rivers near the city are already affected by salinity intrusion. Expected sea level rise due to climate change will exacerbate the salinity intrusion along the rivers. ADB conducted a study to simulate climate change impacts in Khulna and develop adaptation strategy. The results of the study are reflected in the project design, especially in locating the intake of surface water, to make the project climate-proof. Groundwater resource is also being assessed in detail, and the project will support its sustainable management. A recent sector assistance program evaluation pointed out that unregulated groundwater abstraction lowers groundwater tables in many cities. Private wells will be registered and charged with annual fee to regulate abstraction of groundwater. Groundwater and surface water will be used conjunctively to ensure environmentally-sustainable and economically-efficient water resource management.

Establishing KWASA. The Government of Bangladesh (the Government) has established the Khulna Water Supply and Sewerage Authority (KWASA) in February 2008. KWASA is the third Water Supply and Sewerage Authority (WASA) in the country, following the Dhaka WASA and the Chittagong WASA. The Khulna City Corporation (KCC) was directly responsible for water supply service in Khulna, until the physical assets and the staff were separated and transferred to the newly established KWASA. While the KWASA has been legally established, further efforts are required to develop it into a capable water utility with proper corporate governance, competent human resources, and effective financial management system.

ADB's support and opportunity. Asian Development Bank (ADB) has been playing a major role in urban water supply and sanitation sector in Bangladesh. ADB led the formulation of the Joint Partnership Framework (JPF) for urban water supply and sanitation, which was signed in 2007 with the Government and major development partners. As KWASA is a newly-established organization and establishing itself with new personnel and systems, it is opportune to provide adequate support to develop it into an efficient water utility which can serve as a model in Bangladesh. ADB initiated support to the KWASA in 2009 through SSTA 7223: Supporting the establishment of KWASA (the SSTA). The SSTA successfully carried out a series of activities including diagnostic analysis, willingness-to-pay survey, and preparation of the balance sheet. PPTA 7385: Preparing Khulna Water Supply Project (the PPTA) further supports the KWASA in developing five-year business plan and assessing groundwater resource for its sustainability. The project will continue institutional development of KWASA, especially establishment of corporate management system for effectively implementation of the business plan.

Development partnership. A unified policy matrix was developed as the road map for reform and development partners' support. The policy matrix was discussed at the joint review meeting of the JPF, and was shared among the Government and development partners in March 2010. The policy matrix will serve as the common platform to monitor the progress of policy actions. Within the framework the Japan International Cooperation Agency (JICA) plans to co-finance the project, and commissioned an engineering feasibility study. Co-financing the project is among the conclusions and lessons in a sector assistance program evaluation, as a way to scale up assistance in the sector. ADB has been closely coordinating its support with JICA, including joint missions.

Context in country programming. The project is listed among 2011 lending pipelines in the Country Operation and Business Plan Bangladesh (2011-2013). The project will directly contribute to the operational strategies in the Country Strategy and Program (2006-2010), namely social development through better access to clean drinking water. The project will complement the planned improvement of drainage under the City Region Development Project for better urban environment.

Project Rationale and Linkage to Country/Regional Strategy

Impact

Improved urban services in Khulna

## Project Outcome

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Description of Outcome	Expanded and reliable access to portable water in Khulna city
Progress Toward Outcome	Land acquisition process completed. Works completed under ICB package for construction of 10 OHT and 7 reservoirs. Works for construction of clear water transmission main and distribution pipe network are ongoing and will be completed by March 2019.

## Implementation Progress

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Description of Project Outputs	Water sources in Khulna are augmented and managed sustainably Distribution system is extended and delivers water efficiently in Khulna city KWASA manages the water supply system professionally and sustainably
Status of Implementation Progress (Outputs, Activities, and Issues)	Average response time to customers' complaints (180 minutes) achieved by Dec 2018. Revenue collection according to the financial plan (minimum 90% of target throughout the implementation period -complied. Recruitment is being done as per HRM Plan. Training is being conducted as per plan. Male and Female staff enjoy equal opportunity, training conducted according to HRM Plan. Construction of surface water treatment plant completed but operation is yet to be started. Groundwater abstraction in Khulna city is currently 115 MLD, it will be reduced to 50 MLD after the operation of surface water system. Ground water level maintained at maximum 8 meter throughout the implementation period. Women's representation in water group ongoing and will be complied .Share of water user group with women in leadership position ongoing and will be complied. Length of new pipeline network 700 m completed 22,000 Household connection completed. 30% physical ratio. No of water user group formation is ongoing. 2,700 nos. of house hold connection completed.
Geographical Location	Khulna

## Safeguard Categories

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Environment	B
Involuntary Resettlement	A
Indigenous Peoples	C

## Summary of Environmental and Social Aspects

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Environmental Aspects

The project is classified category B in accordance with ADB Safeguard Policy Statement (2009). KWASA prepared an initial environmental examination (IEE) as part of the feasibility study, including an environmental management plan (EMP). The IEE concluded that no significant adverse environmental impacts are anticipated and that the project will have only small, localized impacts to be mitigated through measures outlined in the EMP. The IEE and EMP was updated during detailed design as necessary. The EMP's were incorporated into bidding and contract documents and implemented by contractors and consultants; the PMU will monitor the EMP. The PMU were provided with consultancy and capacity building in managing the environmental impacts. KWASA is responsible for implementing the EMP and reports the progress to ADB. The IEE represents a single, unified document to ensure compliance with the rules and guidelines of ADB, JICA, and the government; and is being implemented as a single process regardless of the funding source. KWASA plans to develop wastewater treatment facilities in the medium term to meet expected increase in water usage.

Involuntary Resettlement

The project is classified category A for involuntary resettlement and category C for indigenous people in accordance with ADB Safeguard Policy Statement. A total of 29.6 hectares of private land has been acquired under the project. Properties to be acquired are primarily agricultural lands or lowland fishing ponds without residential structures. The resettlement impacts are therefore limited to economic displacement and no physical displacement from housing will occur. Involuntary resettlement impacts are considered significant as more than 200 persons were expected to experience major impacts. KWASA prepared a resettlement plan that specifies entitlements for affected persons including compensation at replacement cost, livelihood restoration measures, and special assistance measures for vulnerable groups. The resettlement plan represents a single, unified document to ensure compliance with the rules and guidelines of ADB, JICA, and the government; and will be implemented as a single process regardless of the funding sources. The government is strongly committed to implementing the resettlement plan. At present, the capacity on safeguards planning and implementation at KWASA is not strong. D&S consultants for resettlement have started works since August 2012. An implementing NGO recruited under the piggy-backed TA7820 and helped KWASA to do 100% census of the project affected people.

Indigenous Peoples

No indigenous peoples are identified yet.

**Stakeholder Communication, Participation, and Consultation**

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During Project Design	Consultations were carried out with all stakeholders during project preparation through interviews, public meetings, group discussions and workshops. As integral part of the planning of safeguards, affected communities and persons were consulted during project preparation and design. Local communities, local government units, and government agencies were all involved throughout the preparation process to minimize negative impacts, ensure social acceptance, and increase equitability. Consultations were also held with emphasis on vulnerable groups and women, and played a vital role in raising awareness, gaining local support, and enabling affected people to voice their opinions and suggestions on project design and implementation.
During Project Implementation	Regular communication and consultation are conducted with concerned ministry and JICA, the co-financer of the project.

### **Business Opportunities**

Consulting Services	All Consultants , community-based organizations and non-government ogranizations will be selected and engaged in accordance with ADB Guidelines ont he use of consultants . Consulting services are required to (i) support project management, (ii) carried out detailed design and construction supervision, including monitoring for safegurds complaince, and (iii) provide institutional and capacity development programs. Two major consulting services will be engaged through quality- and cost-based selection (QCBS) method with a standard quality/cost ration of 80/20 and full technical proposals. One small package will be selected through Consultants' Qualification Selection method with simplified technical proposal . The most relevant sections of PAI are PAI 2.05.
Procurement	All Procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines. International Competitive Bidding (ICB) procedures will be used for civil works contracts and goods supply contracts valued at \$1.0 million or higher. National Competitive Bidding (NCB) procedures will be used for works contract and goods supply contracts valued at \$100,000 or higher , and below \$1.00 million. Shopping procedure may be used for works and goods supply contracts worth less than \$100,000. One package for deep exploratory well development will be procured through direct contracting to the Geological Survey of Bangladesg, since it is the sole entity capable to conduct very deep drilling required. ADB and the Government will reviw the public procurement laws of the Government to ensure consistency with ADB's Procurement Guidelines. The details procedures of procurement will be found in Project Administration Instructions (PAI). The most relavent sections of PAI for the Project are PAI 3.03 (ICB) and PAI 3.04 (NCB)
Responsible ADB Officer	Haque, Mohammed Sayeedul
Responsible ADB Department	South Asia Department
Responsible ADB Division	Bangladesh Resident Mission (BRM)
Executing Agencies	<i>Khulna Water Supply and Sewerage Authority</i>

### **Timetable**

Concept Clearance	-
Fact Finding	02 Mar 2011 to 07 Mar 2011

MRM	18 May 2011
Approval	14 Jun 2011
Last Review Mission	-
PDS Creation Date	21 Jan 2010
Last PDS Update	28 Mar 2019

## Loan 2756-BAN

### Milestones

Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
14 Jun 2011	27 Jun 2011	04 Jan 2012	30 Jun 2018	30 Jun 2019	29 Dec 2019

Financing Plan			Loan Utilization			
	Total (Amount in US\$ million)	Date	ADB	Others	Net Percentage	
Project Cost	179.60	Cumulative Contract Awards				
ADB	75.00	17 Jun 2022	66.04	0.00	100%	
Counterpart	104.60	Cumulative Disbursements				
Cofinancing	0.00	17 Jun 2022	66.04	0.00	100%	

### Status of Covenants

Category	Sector	Safeguards	Social	Financial	Economic	Others
Rating	Satisfactory	Satisfactory	Satisfactory	Satisfactory	-	Satisfactory

## TA 7820-BAN

### Milestones

Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
14 Jun 2011	13 Jul 2011	13 Jul 2011	30 Dec 2012	29 Feb 2016	29 Jun 2016

Financing Plan/TA Utilization							Cumulative Disbursements	
ADB	Cofinancing	Counterpart Gov	Beneficiaries	Project Sponsor	Others	Total	Date	Amount
700,000.00	0.00	100,000.00	0.00	0.00	0.00	800,000.00	17 Jun 2022	627,504.97

### Status of Covenants

Category	Sector	Safeguards	Social	Financial	Economic	Others
Rating	Satisfactory	Satisfactory	Satisfactory	Satisfactory	-	Satisfactory

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