



Draft Design and Monitoring Framework

Project Number: 39405
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People's Republic of Bangladesh: Dhaka Water Supply Sector Development Program

A design and monitoring framework is an active document, progressively updated and revised as necessary, particularly following any changes in project design and implementation. In accordance with ADB's public communications policy (2005), it is disclosed before appraisal of the project or program. This draft framework may change during processing of the project or program, and the revised version will be disclosed as an appendix to the report and recommendation of the President.

Asian Development Bank

PROJECT DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
Impact Sustained economic growth and public health improvement in urban centers in Bangladesh, particularly in Dhaka Metropolitan Area	3 years after project completion (2016): <ul style="list-style-type: none"> • Maintain current economic growth at 6.5% • Waterborne diseases reduced by 20% in Dhaka Metropolitan Area 	<ul style="list-style-type: none"> • Government census and statistical records • ADB and development partners' reports 	Assumption <ul style="list-style-type: none"> • Macroeconomic and political stability Risks <ul style="list-style-type: none"> • Natural disaster • High in-migration
Outcome Provision and sustainable operation of improved water supply services through rehabilitation and improvement of management and operation in the urban water supply institutions, particularly in Dhaka	By the end of the Program (2013): <ul style="list-style-type: none"> • Strengthened governance and organizational structure of DWASA • Improved financial management and operational capacity of DWASA, • Improved access to water supply for more than 8 million people in the project areas • Improved water quality (meeting WHO guidelines) and 24-hour pressurized supply for about 157,000 service connections in the project area • DWASA fully recovering costs for its operation and maintenance after adjusting inflation • Collection efficiency of DWASA maintained above 90% 	<ul style="list-style-type: none"> • New circular or decrees on DWASA governance and responsibilities • Full financial audit reports with legal opinion • DWASA customer and MIS records • PPME reports • ADB loan review mission reports 	Assumptions <ul style="list-style-type: none"> • Government and DWASA keep its commitment and implement Institutional, governance and tariff reforms • Skilled human resources are engaged and remain in place • Willingness of the community to pay Risk <ul style="list-style-type: none"> • Lack of political will to implement tariff, institutional, and governance reforms
Outputs a. Increased autonomy, improved local governance and strengthened local institutional management framework (program component 1)	By the end of the Program (2013): <ul style="list-style-type: none"> • New administrative order to decentralize and give broader administrative and financial autonomy to the <i>pourashavas</i> and WASAs on (i) O&M, (ii) billing and collection, and (iii) tariff setting • Study on Water Supply Regulator • 5-year capacity building program for pourashavas water section staff and WASA staff • New DWASA guidelines on the water meters prepared and operational • New rules and regulations on O&M and staff appropriation, to be reflected in revised organization chart (organogram) • Streamlined manuals for quality assurance and control on tubewell installation 	<ul style="list-style-type: none"> • PPME reports • ADB loan review mission reports 	Risks <ul style="list-style-type: none"> • Frequent change in the political environment and DWASA's management • Households are not willing to connect or pay • Financial, institutional, and governance reforms are not sustained at all levels of DWASA's management and staffs • Change in key DWASA staff
b. Improved sector strategy and plan (program component 2)	<ul style="list-style-type: none"> • Signed MOU on water supply and sanitation sector development partnership arrangements with development partners • Water conservation program 	<ul style="list-style-type: none"> • Signed MOU by LGD and development partners' representatives 	Assumption <ul style="list-style-type: none"> • Other development partners continue their assistance to DWASA

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c. Improved financial sustainability in urban water supply sector (program component 3)	<ul style="list-style-type: none"> Tariff structure reformed to cover O&M after adjusting inflation WASA's budget prepared on actual expenditure needs Debt repayment plan approved and fully adopted 	<ul style="list-style-type: none"> DWASA and pourasahava MIS records Financial audit reports ADB loan review mission reports 	Assumption <ul style="list-style-type: none"> Continued commitment of Government and public support to tariff adjustment
<p>d. Strengthened DWASA organizational structure and financial management (program component 4)</p> <p>d1. Strengthened institutional, governance and managerial structure and capacity of DWASA</p> <p>d2. Improved financial management capacity and performance of DWASA</p> <p>d3. Reduced illegal connections</p>	<ul style="list-style-type: none"> Adoption of the new DWASA organization chart Appointment of a new DWASA managing director, as per the DWASA Act 1996, with at least 3-year tenure Full approval of the rules and regulations under the 1996 DWASA Act Official circular on the delineation of responsibilities between the Board and the managing director 5-year business plan and operational manual for DWASA (2009–2013) prepared and approved Streamlined strategy for private sector participation or outsourcing of O&M prepared and approved 5-year tariff adjustment projection prepared Anticorruption ethics committee established and staffed in DWASA Improved consumer grievance mechanism in place Based on World Bank's diagnostic analysis report, DWASA produces financial management improvement plan with time-bound action Past accounts converted to accrual-based double-entry accounting system Baseline survey on illegal connections Renewed guidelines on the installation of water connections and meters Detection and reduction of illegal connections 	<ul style="list-style-type: none"> DWASA customer and MIS records PPME reports ADB loan review mission reports Financial audit reports Monitoring of program loan tranches release conditions DWASA, MIS records Financial Audit reports ADB loan review mission reports Baseline survey results Clear decree from LGD regarding utilities responsibility on connection MIS reports 	Assumptions <ul style="list-style-type: none"> Governance, institutional, and financial reforms implemented are sustained with continued commitment of Government Timely program implementation Assumption <ul style="list-style-type: none"> Key staffs trained and remaining in place in DWASA Risks <ul style="list-style-type: none"> Households are not willing to connect or pay Delays in project implementation
<p>e. Improved distribution system and quality control in DWASA (project component A)</p> <p>e1. Rehabilitated and strengthened</p>	<ul style="list-style-type: none"> Rehabilitation of about 1,536 km of water distribution network Provision of about 1,600 km of tertiary network Rehabilitation of about 157,000 service connections, including 	<ul style="list-style-type: none"> Bangladesh Pollution Control Board and project environmental monitoring reports 	Assumptions <ul style="list-style-type: none"> Timely program implementation Counterpart funds made available. DWASA is allowed to provide and

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<p>distribution network</p> <p>e2. Improved water quality and monitoring system</p> <p>f. Strengthened DWASA capacity and institution (project component B)</p> <p>f1. Strengthened financial and operational management capacity of DWASA</p> <p>f2. Trained staff and resources for DWASA</p> <p>f3. Demand control and public awareness</p> <p>g. Project management and implementation support (project component C)</p> <p>g1. PMU and</p>	<p>installation of new water meters</p> <ul style="list-style-type: none"> • Installation of about 600 bulk water meters and sluice valves • Provision of 14 new and rehabilitation of 24 existing storage reservoirs • Assistance provided to about 20,000 temporarily affected persons (potential maximum) • Water connections and supply points improved for about 2,000 registered slum areas <ul style="list-style-type: none"> • Provision of about 300 chlorination units at all water supply points • Establishment of two-tier water quality monitoring system • Upgrading of existing water quality laboratory and provision of water quality monitoring equipment <ul style="list-style-type: none"> • Accounting staff trained on and using accrual-based, double-entry accounting system • Pilot of one-zone management contract completed • Customer database established and fully functional • 90% accuracy in billing and payment collection achieved • Receivables minimized to 5 months collection equivalent • Training center rehabilitated • All operational staff trained in O&M procedures • Minimum 80% of plumbers working for DWASA trained • Zone offices strengthened to provide one-stop services to customers <ul style="list-style-type: none"> • Leak detection and other O&M tools procured • All zone distribution network technicians trained on leak detection and emergency response techniques • Water meter testing and repair units established and functional at the zone offices • A mass media campaign through TV, radio, or cinema on water consumption and the importance of correct billing <ul style="list-style-type: none"> • Key consultants short-listed and fielded by January 2009 • Bidding and contract award documents are processed according to manner and timing agreed by the Government and ADB, and civil 	<ul style="list-style-type: none"> • DWSSDP quarterly progress reports • ADB loan review mission reports • DWASA customer and MIS records <ul style="list-style-type: none"> • DWSSDP quarterly progress reports • ADB loan review mission reports • DWASA customer and MIS records • Training modules, guidelines and manuals and record of trainings <ul style="list-style-type: none"> • PMU reports • Withdrawal application, disbursement, and contract award 	<p>replace tertiary network, household connections, and meter installations</p> <ul style="list-style-type: none"> • Communities are receptive to awareness and demand control programs • Other development partners continue their assistance to DWASA • Implementing agencies amenable to capacity building <p>Risks</p> <ul style="list-style-type: none"> • Frequent change in the political environment and DWASA's management • Households are not willing to connect or pay • Delays in project implementation • Change in key DWASA staff • Poor tariff collection <p>Assumptions</p> <ul style="list-style-type: none"> • Timely recruitment of consultants • Key staff with appropriate

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<p>management support adequate and operational</p> <p>g2. Feasibility study of the future water treatment plant completed and tender documents prepared</p>	<p>works and capacity building subcomponents are implemented according to the schedule</p> <ul style="list-style-type: none"> • Bidding, detailed design, and RFP documents approved by the Government and ADB on the new WTP • Completed technical, environmental, and social safeguards study on the impact of raw water intake improvement solution 	<p>records</p> <ul style="list-style-type: none"> • Bidding document and detailed design document • Publication of raw intake study 	<p>qualifications and skills are appointed on time.</p>
<p>Activities with Milestones</p> <ol style="list-style-type: none"> 1. Program preparation <ul style="list-style-type: none"> PMU established and fully staffed by November 2007 Key consultant teams (D&M and FCBC) appointed by June 2008 Engineering designs and RFP preparation for network rehabilitation works under component A completed by November 2008 All other consulting services contracts awarded by December 2008 Baseline data collection and indicator setting for benefit monitoring and evaluation of all project components completed by December 2008 Initiate awareness campaign and demand control activities by June 2008 2. Implementation of activities under component A <ol style="list-style-type: none"> 2.1. Update construction plans and schedules by June 2008 2.2. Initiate land acquisition and resettlement, if any, by December 2007 2.3. Prepare bid documents by October 2008 2.5. Procure equipment and materials—water meters, chlorinators, etc.—by December 2008 2.6. Approximately 1,536 km of water distribution pipelines rehabilitated by 2013 2.7. Approximately 157,000 service connections are upgraded and household meters installed by 2013 2.8. 600 bulk meters and sluice valves are installed by 2011 2.9. 24 existing overhead reservoirs are rehabilitated by 2011 and 14 new reservoirs constructed by 2012 2.10. 300 disinfection units are established by 2010 2.11. Existing water quality laboratory is upgraded by 2010 3. Implementation of activities under component B <ul style="list-style-type: none"> Improvement of financial management and accounting and computerization initiated in DWASA by October 2008 Operational improvement of zone offices, staff trained by December 2009 Training of central level DWASA staff initiated by June 2008 Establishment of PPME by January 2009 			<p>Inputs</p> <p>Project Loan:</p> <ul style="list-style-type: none"> • ADB: \$150 million equivalent • Government: \$62.7 million <p>Program Loan:</p> <ul style="list-style-type: none"> • ADB: \$50 million equivalent <p>Piggy-backed TA:</p> <ul style="list-style-type: none"> • ADB: \$2,500,000 • Government: \$625,000

ADB = Asian Development Bank, D&M = design and managing consultants, DWASA = Dhaka Water Supply and Sewerage Authority, DWSSDP = Dhaka Water Supply Sector Development Program, FCBC = financial and capacity development consultants, LGD = Local Government Division, MIS = management information system, MOU = memorandum of understanding, PPME = project performance monitoring and evaluation, O&M = operation and maintenance, MIS = management information system, pourashavas = peri-urban town, RFP = request for proposal, PMU = project management unit, WASA = water supply and sewerage authority, WTP = water treatment plant.