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Report No: PAD2415

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT PAPER

ON A

PROPOSED ADDITIONAL CREDIT

IN THE AMOUNT OF SDR34.70 MILLION
(US\$47.49 MILLION EQUIVALENT)

AND PROJECT RESTRUCTURING

TO THE

PEOPLE'S REPUBLIC OF BANGLADESH

FOR A

CHITTAGONG WATER SUPPLY IMPROVEMENT AND SANITATION PROJECT

June 2, 2017

Water Global Practice
South Asia

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CURRENCY EQUIVALENTS

(Exchange Rate Effective April 30, 2017)

Currency Unit = Taka
Taka 78.38. = US\$1
US\$ 1.37102000 = SDR 1

FISCAL YEAR
July 1 – June 30

ABBREVIATIONS AND ACRONYMS

AC	Asbestos Cement
AF	Additional Financing
ARP	Abbreviated Resettlement Plan
BCR	Benefit Cost Ratio
BDT	Bangladesh Taka
BPS	Booster Pump Station
CAG	Comptroller and Auditor General
CCC	Chittagong City Corporation
CDA	Chittagong Development Authority
CWASA	Chittagong Water Supply and Sewerage Authority
CWSISP	Chittagong Water Supply Improvement and Sanitation Project
EA	Environmental Assessment
EA	Economic Analysis
EIA	Environmental Impact Assessment
EMF	Environmental Management Framework
EMP	Environmental Management Plan
GoB	Government of Bangladesh
GRS	Grievance Redress System
IDA	International Development Association
IRR	Internal Rate of Return
ISR	Implementation Status and Results
IUFR	Interim Unaudited Financial Report
JICA	Japan International Cooperation Agency
LGD	Local Government Division
LIC	Low-Income Community
M&E	Monitoring and Evaluation
MDG	Millennium Development Goals
MLD	Million Liters per Day
MLGRD&C	Ministry of Local Government, Rural Development & Cooperatives
MLY	Million Liters per Year
MoD	Maintenance and Operations Division
MS	Moderately Satisfactory
MTR	Mid-Term Review
NGO	Non-Governmental Organization

NPV	Net Present Value
NRW	Non-Revenue Water
OP/BP	Operational Policy/ Bank Procedures
O&M	Operations and Maintenance
PAD	Project Appraisal Document
PDO	Project Development Objective
PMU	Project Management Unit
PRMP	Procurement Risk Mitigation Plan
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
SCM	Suggestions and Complaints Mechanism
SDG	Sustainable Development Goal
SDR	Special Drawing Rights
SORT	Systematic Operations Risk Rating Tool
TA	Technical Assistance
USD/US\$	United States Dollar
WASA	Water Supply and Sewerage Authority
WASH	Water, Sanitation and Hygiene
WB	World Bank
WSS	Water Supply and Sanitation
WTP	Water Treatment Plant

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Bangladesh
Additional Financing to Chittagong Water Supply Improvement and Sanitation Project

Table of Contents

Project Financing Data - Parent (BD Chittagong Water Supply Improvement and Sanitation Project-P103999) (in USD Million).....	i
Project Financing Data - Additional Financing to Chittagong Water Supply Improvement and Sanitation Project (P161566) (in USD Million).....	ii
I. Introduction.....	1
II. Background and Rationale for Additional Financing.....	2
III. Proposed Changes.....	3
IV. World Bank Grievance Redress.....	11
Annex 1: Results Framework	13
Annex 2: Revised Estimated Project Costs	18

ADDITIONAL FINANCING DATA SHEET

Bangladesh

Additional Financing to Chittagong Water Supply Improvement and Sanitation Project (P161566)

SOUTH ASIA

GWA06

Basic Information – Parent									
Parent Project ID:	P103999	Original EA Category:		B - Partial Assessment					
Current Closing Date:	31-Dec-2018								
Basic Information – Additional Financing (AF)									
Project ID:	P161566	Additional Financing Type (from AUS):		Cost Overrun					
Regional Vice President:	Annette Dixon	Proposed EA Category:		B-Partial Assessment					
Country Director:	Qimiao Fan	Expected Effectiveness Date:		29-Sep-2017					
Senior Global Practice Director:	Guang Zhe Chen	Expected Closing Date:		31-Mar-2020					
Practice Manager/Manager:	Meike van Ginneken	Report No:		PAD2415					
Team Leader(s):	Soma Ghosh Moulik, Arif Ahamed								
Borrower									
Organization Name			Contact	Title	Telephone	Email			
People's Republic of Bangladesh			Kazi Shofiqul Azam	Secretary	+880-2-9113743	secretary@erd.gov.bd			
Project Financing Data - Parent (BD Chittagong Water Supply Improvement and Sanitation Project-P103999) (IN USD MILLION)									
Key Dates									
Project	Ln/Cr/TF	Status	Approval Date	Signing Date	Effectiveness Date	Original Closing Date	Revised Closing Date		
P103999	IDA-47340	Effective	23-Jun-2010	26-Jul-2010	27-Oct-2010	31-Dec-2015	31-Dec-2018		
P103999	TF-58153	Closed	02-Sep-2007	02-Sep-2007	02-Sep-2007	18-Nov-2008	18-Nov-2009		
Disbursements									
Project	Ln/Cr/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed

P103999	IDA-47340	Effective	USD	170.00	155.52	14.48	92.00	50.73	59.16
P103999	TF-58153	Closed	USD	0.80	0.00	0.80	0.00	0.00	
Project Financing Data - Additional Financing to Chittagong Water Supply Improvement and Sanitation Project (P161566) (IN USD MILLION)									
<input type="checkbox"/> Loan <input type="checkbox"/> Grant <input type="checkbox"/> IDA Grant <input checked="" type="checkbox"/> Credit <input type="checkbox"/> Guarantee <input type="checkbox"/> Other									
Total Project Cost:		83.05		Total Bank Financing:		47.49			
Financing Gap:		0.00							
Financing Source – Additional Financing (AF)								Amount	
BORROWER/RECIPIENT								35.56	
International Development Association (IDA)								47.49	
Total								83.05	
Policy Waivers									
Does the project depart from the CAS in content or in other significant respects?							No		
Explanation									
Does the project require any policy waiver(s)?							No		
Explanation									
Team Composition									
Bank Staff									
Name	Role	Title	Specialization	Unit					
Soma Ghosh Moulik	Team Leader (ADM Responsible)	Lead Water and Sanitation Specialist		GWA06					
Arif Ahamed	Team Leader	Senior Water Supply and Sanitation Specialist		GWA06					
Ishtiak Siddique	Procurement Specialist (ADM Responsible)	Senior Procurement Specialist		GGO06					
Arvind Prasad Mantha	Financial Management Specialist	Financial Management Specialist		GGO24					
Abdul Motaleb	Team Member	Consultant		GWA06					
Abu Ahmed Mansoor Kabir	Team Member	Program Assistant		SACBD					

Md Istiak Sobhan	Safeguards Specialist	Environmental Specialist		GEN06	
Sabah Moyeen	Safeguards Specialist	Senior Social Development Specialist		GSU06	
Shyamal Sarkar	Team Member	Consultant		GSU12	
George Joseph	Team Member	Senior Economist		GWAGP	
Joseph Ravi Kumar Xavier	Team Member	Senior Institutional Development Specialist		GWA06	
Teen Kari Barua	Safeguards Specialist	Consultant		GSU06	
Zakia B. Chummun	Team Member	Program Assistant	Operations	GWA06	
Extended Team					
Name		Title		Location	
Locations					
Country	First Administrative Division	Location	Planned	Actual	Comments
Bangladesh	Chittagong	Chittagong			
Institutional Data					
Parent (BD Chittagong Water Supply Improvement and Sanitation Project-P103999)					
Practice Area (Lead)					
Water					
Contributing Practice Areas					
Additional Financing to Chittagong Water Supply Improvement and Sanitation Project (P161566)					
Practice Area (Lead)					
Water					
Contributing Practice Areas					
Consultants (Will be disclosed in the Monthly Operational Summary)					
No new consultants are to be hired					

I. INTRODUCTION

1. This Project Paper seeks the approval of the Executive Directors to provide an additional credit in an amount of SDR34.70 million (US\$47.49 million equivalent) to the Bangladesh Chittagong Water Supply Improvement and Sanitation Project (CWSISP; Project ID: P103999; Credit Number: 47340-BD) and to propose a restructuring of the parent project to, among others, extend the current closing date from December 31, 2018 to March 31, 2020.

2. The proposed additional credit would help finance the costs associated with activities which have been in the parent project scope but could not be undertaken due to cost overruns of US\$83.05 million caused by variations in the design of transmission and distribution networks and a weakening SDR. The Project Paper does not propose any changes to the design and the activities supported by the Project. With the extension of the current closing date to March 31, 2020, the target values of some of the indicators are updated.

3. **Country Context:** Bangladesh is one of the most densely populated countries in the world with an estimated population of more than 160 million. Population growth is increasingly concentrated in urban areas. In the past decade, Bangladesh has experienced rapid economic growth, averaging nearly 6.5 percent growth 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 economic growth and the country has achieved considerable success in reducing extreme poverty since its independence in 1971. Progress in reducing extreme poverty and boosting shared prosperity through human development and employment generation has continued with the poverty incidence based on the international \$1.90 per capita per day poverty line (measured on the basis of the Purchasing Power Parity exchange rate) declining from 44.2 percent in 1991 to 18.5 percent in 2010 (latest available poverty data) and to a projected 14.9 percent in 2016. Such progress notwithstanding, the country needs to boost its growth rate to meet its goal of attaining middle income status by 2021. Bangladesh has met the Millennium Development Goals (MDG) target of halving incidence of extreme poverty.

4. Bangladesh achieved the MDG target to halve the population without access to improved drinking water sources. An additional 65 million people gained access to improved water supply between 1990 and 2015 (Joint Monitoring Program, 2015). However, only 32 percent of the urban population have piped water supply, most of which is concentrated in the major cities. Cities in Bangladesh, including Chittagong, are characterized by an infrastructure deficit and challenging service delivery. The majority of urban centers have unreliable water sources and the services are intermittent. The country also made remarkable progress in improving sanitation access, but could not achieve the sanitation MDG targets. Access to sanitation in urban areas has increased from 59 percent in 2004 to 84 percent in 2014. A recent World Bank study (2016) found that the bottom 40 percent of wealth quintiles in the country consistently have the worst coverage of all tiers of water supply, sanitation and hygiene (WASH) services and are served the least in the majority of districts compared to the top 60 wealth quintiles. To address these growing challenges, the Government of Bangladesh (GoB) is committed to achieving the Sustainable Development Goals (SDGs), including SDG 6, to ensure sustainable access to water and sanitation for all.

5. **Sector Context:** Over the last decade various key sector policies have been promulgated. In 1998 the National Policy for Safe Water Supply and Sanitation represented the ‘parent’ policy which stipulated a specific objective of facilitating access for all citizens to a basic level of services in water supply and sanitation. Various other policies and strategies augmented the national policy. In 2006, the government developed the Sector Development Program-Water and Sanitation Sector in Bangladesh which drew together the sector policies, strategies and targets and compiled them into one platform. Most recently, the GoB has demonstrated its commitment to the SDG6 by incorporating the global targets in developing the country’s Seventh Five Year Plan for the period of 2016-2020. Rapid urbanization continues to be a key

policy issue affecting the urban water supply and sanitation sector. Improving and extending infrastructure to meet existing and increasing demand for safe water supply and sanitation remains a key operational issue. While significant progress has been made in improving access to basic services, key sectoral and institutional issues require attention, particularly improvements in efficiency, accountability and sustainability of urban water utilities.

6. The responsibility for water supply and sanitation sector lies with the Ministry of Local Government Rural Development and Cooperatives (MLGRD&C) through its Local Government Division (LGD). Urban water supply and sanitation services are carried out by various agencies and authorities. In 1996, the GoB adopted the Water Supply and Sewerage Authority (WASA) Act. There are WASAs in four cities – Dhaka, Chittagong, Khulna and Rajshahi. The Chittagong Water Supply and Sewerage Authority (CWASA) is responsible for providing water, sewerage and drainage services in Chittagong City. The Act provides for CWASA to manage its facilities and operate with a high degree of autonomy. It provides for an autonomous corporate management structure intended to improve the clarity of roles and responsibilities amongst sector institutions and to strengthen CWASA’s accountability to its service provision mandates. The relationship between CWASA and the GoB is underpinned by a performance contract between the two parties. Chittagong is the second largest city and a major sea port in Bangladesh with a population of 2.6 million (Census 2011). The Chittagong metropolitan area is estimated to have 4 million people. Around 70 percent of the city population has access to water supply but is mostly dependent on alternative sources, including tube wells, tankers and street hydrants. Almost a decade ago, significant development partner financing resumed to address the large investment and service delivery gaps. In particular, the Japan International Cooperation Agency (JICA)-supported Karnaphuli Water Supply Project recently completed a 143 MLD water treatment plant with network expansion in the central part of the city. Key capacity development programs have also been initiated to address the longstanding challenge of weak human resources planning and management. With the implementation of the utility modernization program, CWASA’s operating facilities are being rehabilitated and are improving. CWASA is developing the master plans for improved sanitation, sewerage and drainage.

II. BACKGROUND AND RATIONALE FOR ADDITIONAL FINANCING

Background and Description.

7. The Chittagong Water Supply Improvement and Sanitation Project was approved by the Board on June 23, 2010 with a credit amount of US\$170 million, and the credit was declared effective on October 27, 2010. The original closing date was December 31, 2015. The original Project Development Objective (PDO) was to increase sustainable access to safe water and improved sanitation, as well as support the establishment of a long-term water supply, sanitation and drainage infrastructure development and operational management program in Chittagong.

8. Project implementation started off slowly. It took about 3 years to establish a strong Project Management Unit (PMU), identify technical assistance needs and begin preparation of the detailed engineering designs and bidding documents for the major works packages. The mid-term review conducted in December 2013 assessed that although the original project as designed was relevant, the objectives were not achievable within the remaining implementation period. Therefore, changes were proposed to: (i) scale down project interventions in the water supply and sanitation component; (ii) cancel some project activities under the sewerage and drainage component; and (iii) amend the PDO and results framework to correspond to the revised project scope.

9. A two-phase restructuring was carried out to implement these changes. The first part was a Level I restructuring approved by the Board on April 1, 2014 that revised the PDO and resized and refocused the project. The revised PDO was to increase access to safe water supply and improve CWASA’s institutional

capacity and investment planning for sanitation and drainage in Chittagong City. The restructuring included a partial cancellation of US\$14.48 million equivalent of SDR. The project scope was streamlined to focus on critical works and technical assistance activities under three components: (i) water supply improvement, (ii) investment planning for sanitation and drainage, and (iii) institutional capacity development and project management support. A subsequent Level II restructuring granted an extension of the project closing date by three years to December 31, 2018.

Summary of Project Performance

10. The project is rated Moderately Satisfactory (MS) for PDO and MS for implementation progress after significant progress was achieved over the last eight months. In accordance with Bank Guidelines, an exception to OP10.00 was obtained from the Regional Vice President's Office on April 17, 2017 after advice from OPSVP on April 13, 2017. Contracts have been signed and activities are underway for most of the priority works as the technical assistance services that are critical to achievement of the project objectives were procured. All contracts under implementation will be completed prior to the current closing date.

11. The PDO remains relevant and achievable in view of the progress achieved so far and the demonstrated commitments shown by the senior management of CWASA and the MLGRD&C. Results are being delivered. Around 10,600 house connections have been installed or rehabilitated. It is estimated that 254,400 people are currently benefiting from access to improved water supply due to the project. This is expected to increase to 648,000 people when all activities are completed. The Master Plans for Sanitation and Drainage are being finalized. In addition, a number of technical assistance activities are currently underway to improve CWASA's institutional capacity and planning for future investments. The operation and maintenance (O&M) cost coverage from direct water sales revenue is presently 83 percent against the end project target of 85 percent. Implementation of the recommendations of the utility modernization plan is expected to bring further improvements in utility capacity and management.

Rationale and Justification for the Additional Financing

12. The proposed additional financing (AF) will bridge a financing gap of US\$ 83.05 million resulting from an increase in the cost of water supply infrastructure and exchange rate variations. The cost of the component for water supply improvement of the restructured project increased significantly as: (a) the scope of water network coverage was extended to meet water demand for year 2035 in lieu of year 2030; (b) the rehabilitation of a booster pump station to improve transmission of water was included in the project scope; and (c) the water transmission pipeline to the southern part of the city had to be rerouted which caused a cost increase. Adverse exchange rates (SDR to US\$) also impacted financing. The GoB has committed to increasing its counterpart financing from US\$16.75 million at appraisal to an additional US\$35.56 million now. An additional financing of US\$47.49 million from IDA is proposed to fill the remaining financing gap.

III. PROPOSED CHANGES

Summary of Additional Financing activities & allocations

14. No new activity outside of the restructured project will be taken up with the proposed AF which seeks to help finance the signed commitments and implement the originally planned water supply infrastructure. The only change envisaged is the extension of the closing date to enable bid invitation, contract award and implementation of the contract (Package W5) for completion of the key water

transmission main. Project closing date will be extended to March 31, 2020. The revised estimated project costs is provided in Annex 2.

15. **Results Framework:** The PDO and Intermediate Results (IR) indicators will remain unchanged, however some target values will be modified to reflect the proposed project closing date extension. A revised Results Framework is attached in Annex 1.

A summary of the proposed changes is presented below.

Summary of Proposed Changes	
<p>The proposed additional financing will fund the cost overrun of US\$83.05 million which has occurred due to an increase in cost of water supply infrastructure and exchange rate variations. The design and scope of the project would remain unchanged. The AF does not include any changes to the development objectives as defined in the financing agreement for the restructured project, and follows the same component structure as the restructured project. The cost overrun will be covered by the proposed additional financing from IDA (US\$47.49 million) and GoB (US\$35.56 million).</p>	
<p>A summary of the activities to be financed through the AF under components 1 and 2 is provided below. There are no activities to be financed under component 3.</p>	
<p>Component 1: Water Supply Improvement (US\$81.56 million). This component will address construction of the major transmission system (works contract package W5 – transmission main from Kalurghat to Patenga Booster Pumping Station (BPS) and related distribution network) and bridge the financing gap for completion of ongoing contracts for (i) Modunaghat Water Treatment Plant and Patenga BPS (Package W1), (ii) construction of transmission and additional distribution pipelines (Package W4), (iii) construction of distribution pipelines (Package W8), and (iv) consulting services for design and construction supervision (Package S3). This component also includes an allocation for contingencies to address unanticipated technical challenges that may hinder the achievement of water supply objectives in the project area.</p>	
<p>Component 2: Investment Planning for Sanitation and Drainage (US\$1.49 million). This component will address the financing gap in the consulting services for preparation of a sanitation and drainage improvement strategy and master plan for the Chittagong City.</p>	
Change in Implementing Agency	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]
Change in Project's Development Objectives	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]
Change in Results Framework	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]
Change in Safeguard Policies Triggered	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]
Change of EA category	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]
Other Changes to Safeguards	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]
Change in Legal Covenants	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]
Change in Loan Closing Date(s)	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>]
Cancellations Proposed	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>]

Change in Disbursement Arrangements	Yes [X] No []
Reallocation between Disbursement Categories	Yes [] No [X]
Change in Disbursement Estimates	Yes [X] No []
Change to Components and Cost	Yes [X] No []
Change in Institutional Arrangements	Yes [] No [X]
Change in Financial Management	Yes [] No [X]
Change in Procurement	Yes [X] No []
Change in Implementation Schedule	Yes [X] No []
Other Change(s)	Yes [] No [X]

Development Objective/Results

Project's Development Objectives

Original PDO
 The objective of the Project is to increase the sustainable access to safe water and improved sanitation, as well as support the establishment of a long term water supply, sanitation and drainage infrastructure development and operational management program in Chittagong.

Current PDO
 The revised PDO is to increase access to safe water and improve CWASA's institutional capacity and investment planning for sanitation and drainage in Chittagong City.

Change in Results Framework

Explanation:
 There is no change in the results indicators. The target values of the indicators have been updated corresponding with the extension of the project closing date to March 31, 2020.

Compliance

Covenants - Additional Financing (Additional Financing to Chittagong Water Supply Improvement and Sanitation Project - P161566)

Source of Funds	Finance Agreement Reference	Description of Covenants	Date Due	Recurrent	Frequency	Action
				<input type="checkbox"/>		

Conditions

Source Of Fund	Name	Type
IDA	Subsidiary Agreement	Effectiveness

Description of Condition
 The Recipient has executed the Subsidiary Agreement on behalf of the Recipient and the Project Implementing Entity, in form and substance satisfactory to the Association.

Risk					
Risk Category				Rating (H, S, M, L)	
1. Political and Governance				Substantial	
2. Macroeconomic				Moderate	
3. Sector Strategies and Policies				Substantial	
4. Technical Design of Project or Program				Moderate	
5. Institutional Capacity for Implementation and Sustainability				Substantial	
6. Fiduciary				Substantial	
7. Environment and Social				Moderate	
8. Stakeholders				Moderate	
9. Other					
OVERALL				Substantial	
Finance					
Loan Closing Date - Additional Financing (Additional Financing to Chittagong Water Supply Improvement and Sanitation Project - P161566)					
Source of Funds			Proposed Additional Financing Loan Closing Date		
International Development Association (IDA)			31-Mar-2020		
Loan Closing Date(s) - Parent (BD Chittagong Water Supply Improvement and Sanitation Project - P103999)					
Explanation:					
The current closing date of the parent project is December 31, 2018. A closing date extension to March 31, 2020 is required to complete the contract award for the W5 package for construction of the transmission mains from Kalurghat to Patenga Booster Pumping Station and related distribution pipelines.					
Ln/Cr/TF	Status	Original Closing Date	Current Closing Date	Proposed Closing Date	Previous Closing Date(s)
IDA-47340	Effective	31-Dec-2015	31-Dec-2018	31-Mar-2020	31-Dec-2015, 31-Dec-2018
TF-58153	Closed	18-Nov-2008	18-Nov-2009		26-Apr-2010
Change in Disbursement Arrangements					
Explanation:					
A Designated Account would be provided under the AF on refund of two lapsed loans refund under Bangladesh portfolio. Disbursements under the AF is expected to commence upon completion of disbursements of components A and B under the Original Financing. Since IDA would not finance customs duties and value added taxes on imports under the AF, these taxes related to expenditures would be disbursed separately from the Government's bank account.					
Change in Disbursement Estimates (including all sources of Financing)					
Explanation:					
The disbursement estimates are adjusted to reflect the extended implementation period.					

Expected Disbursements (in USD Million)(including all Sources of Financing)										
Fiscal Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Annual	57.71	34.29	18.75	53.40	26.38	0.00	0.00	0.00	0.00	0.00
Cumulative	57.71	92.00	110.75	164.15	190.53	0.00	0.00	0.00	0.00	0.00
Allocations - Additional Financing (Additional Financing to Chittagong Water Supply Improvement and Sanitation Project - P161566)										
Source of Fund	Currency	Category of Expenditure	Allocation		Disbursement %(Type Total)					
			Proposed		Proposed					
IDA	USD	Works and consultants' services	47.49		100.00					
		Total:	47.49							
Components										
Change to Components and Cost										
Explanation:										
There are no changes in the scope of the project components. The cost of new activities and cost overruns of ongoing activities are updated. In the table below the Current Cost refers to the cost at restructuring. The IDA finance for the revised (restructured) project was SDR112.5 million (equivalent US\$157.87 million as per exchange rate of March 2014). However, as per the World Bank Client Connection Financial Data as of April 24, 2017, the equivalent value of the credit amount is US\$143.04 million. A breakdown of Current Cost per component is provided in Annex 2.										
Current Component Name	Proposed Component Name	Current Cost (US\$M)	Proposed Cost (US\$M)	Action						
Water Supply Improvement	Water Supply Improvement	145.40	177.75	Revised						
Investment Planning for Sanitation and Drainage	Investment Planning for Sanitation and Drainage	3.13	4.22	Revised						
Institutional Capacity Development and Project Management Support	Institutional Capacity Development and Project Management Support	9.34	8.56	Revised						
	Total:	157.87	190.53							
Other Change(s)										
Implementing Agency Name				Type			Action			
Chittagong Water Supply and Sewerage Authority (CWASA)				Implementing Agency			No Change			
Change in Procurement										
Explanation:										
Procurement under the AF will follow the Bank's new Procurement Framework which took effect on July 01, 2016. There is only one major contract that will commence with the AF, i.e. the construction of										

transmission main from Kalurghat to Patenga BPS and related distribution pipelines (Contract Package W5). There will be no change to the W5 bidding documents/procurement process as no-objection has been provided. A simplified Project Procurement Strategy for Development (PPSD) document has been prepared which spells out the procurement strategy for the AF.

Change in Implementation Schedule

Explanation:

The majority of the ongoing activities will be completed by the current closing date. The W5 package will be completed beyond the current closing date of the parent project. Therefore the implementation schedule is extended to coincide with the proposed new project closing date.

Appraisal Summary

Economic and Financial Analysis

Explanation:

Economic Analysis (EA): A benefit-cost framework using a “with” and “without” the AF methodology has been used to calculate the Internal Rate of Return (IRR) and the Net Present Value (NPV) of the project at the project and activity levels. The project level analysis determined whether the whole project would be economically viable with the AF, considering the EA at the appraisal stage. The activity level analysis assessed the economic viability of the construction of the major transmission pipe works contract package W5) which would be financed by the AF. In both analyses project costs comprise capital cost and the operations and maintenance cost across a 25-year horizon. The analysis used a discount rate of 10 percent. Quantifiable benefits include (i) incremental consumption by existing consumers and access to piped water by new consumers; (ii) non-incremental water that replaces existing water supply; (iii) time cost saved by bringing water sources closer to the households, and (iv) improvement in unaccounted for water with the rehabilitation of the piped network

a) Project Level Analysis: The project, including the AF, is economically viable. Updating the appraisal economic analysis using the present value of the AF, the IRR of the project decreases from 18.5 percent to 16.7 percent. The NPV with the AF is significantly positive. A sensitivity analysis using an increased costs by 20 percent shows that the project’s IRR decreases to 14.4 percent. In case of a reduction in benefits by 20 percent, the IRR is 13.9 percent. The NPVs were significantly positive for all scenarios.

b) Activity Level Analysis: The IRR for the works contract package W5 is 19 percent. A sensitivity analysis was carried out for an increase in costs or reduction in revenue. A scenario with 20 percent increase in costs resulted in a positive NPV and an IRR of 15 percent. A scenario with a 20 percent reduction in expected benefits resulted in a positive NPV and an IRR of 14.7 percent.

Financial Analysis: No project financial analysis was carried out at appraisal. The AF to the project will have a positive effect on CWASA’s financial situation. The major transmission pipe to be financed by CWASA will result in 2,000 new connections and will improve water supply for 2,000 existing connections in the southern part of the city. This will generate considerable additional revenues for CWASA.

The PAD describes the financial situation of CWASA using data for the FY04–07 period. A particular issue of concern at appraisal was the ability of CWASA to operate as a solvent and financially viable entity during and after the project, and its ability to service its capital financing obligations. This issue still remains a concern. However, the utility has improved its financial performance between 2012 and 2015. The utility improved its operating ratio from 74 percent in 2012 to 82 percent in 2015. Significant improvements were achieved in collections from customers and the collection ratio was 98 percent in FY15. NRW has remained at approximately 16 percent between 2012 and 2015. Income statements for FY14 and for FY15 show a

positive and improving net income of BDT47.06 million (US\$0.6 million) and BDT85.77 million (US\$1.09 million), respectively, compared to BDT20.3 million (US\$0.26 million) in 2012.

As of fiscal year ending June 30, 2015, the utility realized a small net profit of BDT85.77 million (US\$1.09 million) on total sales of BDT622.14 million (US\$7.9 million), compared to net profit of BDT20.3 million (US\$0.26 million) on total sales of BDT516 million (US\$6.6 million) in fiscal year ending June 30, 2012. In the past, the GoB has restructured and forgiven loans and the utility has not been held fully accountable for its financial obligations. Without this implicit GoB support, the net result of CWASA profitability would be considerably more negative.

The most recent entity financial statements (for FY14 and FY15) indicate that the ratio of current assets to current liabilities was 2.02 in FY14 and 1.66 in FY15. The utility is going through a particularly important period of time that requires careful attention. The current and programmed works over the medium term will add more than US\$1,383.13 million in total capital investments over a ten-year period. This accelerated pace of development must be approached with guarded optimism. While there is great benefit to be gained by significantly increasing access to water among Chittagong's population and increasing the revenue stream of CWASA, any mistake can lead to financial imbalances that can only be reversed through GoB intervention.

CWASA's tariffs remain low with an average of BDT8.42/ m³ (US\$0.11/ m³) in 2012 to BDT9.61/ m³ (US\$0.12/ m³) in 2015. CWASA still faces the challenge of increasing revenue from its core water sales operations, thereby crowding out the use of private sector financing for the AF. Tariff reforms, increasing the volume of water sold, and controlling CWASA's administrative and non-direct costs as water sales grow will all be needed to improve the financial performance of CWASA.

Technical Analysis

Explanation:

The Bank has reviewed and confirmed that the proposed investments reflect government priorities and are aligned with strategic sector principles addressing key technical issues. The investments (works contract W5) to be financed under AF will increase the hydraulic capacity of the network and replace old AC pipes, and enable significant improvement in water supply coverage. The technical design is robust and the bidding documents are well prepared and complete.

CWASA's commitment to institutional capacity development has been strengthened with the contributions from the special task force. CWASA has agreed to maintain this arrangement throughout AF implementation to raise the utility maturity to a higher level.

Social Analysis

Explanation:

The AF will finance the completion of the works packages take up under the original project. The Kalurghat to Patenga Booster Pumping Station and related distribution pipelines passes through once-well-known places in the older parts of the city. Key stakeholders like business owners and traders operating along the roads and on sidewalks were consulted during project preparation, social screening, as well as preparation of the Abbreviated Resettlement Plan (ARP). CWASA will implement all civil works under AF using the new trenchless technology to minimize disruptions to roadside private activities. CWASA re-disclosed the ARP on May 02, 2017 and the RPF on May 08, 2017.

Involuntary Resettlement: The OP/BP 4.12 will remain triggered in the AF. The original project triggered OP/BP 4.12 and the client adopted a Resettlement Policy Framework (cleared by the Bank and disclosed to

the public) to deal with resettlement issues that might be faced during implementation of the civil works. Resettlement expenses, if any will be financed out of counterpart funds. CWASA had prepared an ARP and implemented it satisfactorily during project implementation. The ARP covered the activities financed through the AF.

Gender: It is expected that women and girls stand to benefit significantly from improved water supply and sanitation. In the absence of water supply at household level, they carry the burden of collecting water from nearby water points or tankers. With improved access to water supply provided by the project, it will reduce coping costs, lead to time saving, and increase productivity. In addition, there would be positive impact on women's safety and security -- eventually enabling them to participate in activities that would enhance their well-being. In the low income areas, the project has facilitated women's participation and representation at the community level water user groups. CWASA will ensure that women's representation in ward level meetings are continued and receive gender disaggregated feedback on the services provided by the utility for the remaining period of the project implementation.

Citizens' engagement: By extending water distribution pipelines to some of the low income areas the project may help to create a sense of fairness to the potential beneficiaries. The new clientele, i.e., those who would get household connection for the first time would benefit enormously. It is expected that women and girls stand to benefit significantly from improved water supply. To ensure that the remainder of the project is implemented effectively, CWASA will continue to draw on wider community and civil society engagement through citizens' feedback system, such as use of community score cards and satisfaction surveys in keeping with the project objectives. Grievance redress mechanism on the service provision already exists and will be further strengthened during the implementation of the project. CWASA will ensure citizen engagement throughout the project implementation period, and will track progress through feedback systems.

Environmental Analysis

Explanation:

The construction of a water transmission pipeline in a large and densely populated city environment to be financed by the AF will require careful environmental assessments. The proposed project is classified as a Category B project since there are no significant and/or irreversible environmental issues in the installation of an 11.10-km transmission pipeline. The policy on Environment Assessment (OP/BP 4.01) remains triggered in the AF to ensure that the project investment is environmentally sound, sustainable and thus help improve decision making. Since the pipeline routes to be installed is clearly known, a full Environmental Impact Assessment (EIA) has been carried out. The EIA was disclosed by CWASA in their websites (www.ctg-wasa.org.bd) on January 2016, May 2016 and reloaded in April 2017. Hardcopies are also available at CWASA headquarters.

To mitigate the environmental impact, a proper environmental management plan (EMP) has been prepared in the EIA, and the EMP shall be followed during implementation. Also, necessary mitigation measures to prevent accidents at the pipeline digging sites shall be taken during execution of the works (e.g., using appropriate safety devices). In fact, CWASA will carry over the experiences gained during implementation of the original project into the implementation of the AF activities.

The EMF, EIA, and RPF were discussed in a stakeholder consultation workshop in December 2009 and June 2015. More of such discussions will be undertaken for the activities under the AF. Environmental issues will be integrated into the project's suggestions and complaints mechanism (SCM) referred to in the EIA.

Risk

Explanation:

The overall risk for the original project was rated as High at appraisal. A comprehensive risk assessment was undertaken at the time of the second project restructuring in June 2015. The assessment at that time rated the overall risk as Substantial. The initial screening of the AF for risks using the Systematic Operations Risk-Rating Tool (SORT) suggests that the overall risk of the proposed AF is Substantial.

CWASA is in compliance with the FM and audit legal covenants. There have been regular submissions of IUFs and project audit reports to the Bank. The submission of IUFs could be further improved with support from the CWASA's full time Financial Management Specialist. CWASA submitted an acceptable project audit report for FY 2015-16 in January 2017. While the project is in compliance with audit covenants under Bank projects, however, there is a backlog in producing the entity audit reports and financial statements of the last two financial years, i.e. 2014-15 and 2015-16. A time-bound action plan has been drawn to clear the entity audit backlog by September 30, 2017. Fiduciary risk is evaluated as substantial mainly due to a backlog of entity audit reports.

Procurement risks are associated with capacity constraints in CWASA in performing procurement and contract management related activities and delays in procurement processing. A range of procurement risk mitigation measures were put in place under the parent project which successfully minimized the procurement risks and capacity gap in CWASA. All procurement risk mitigation measures of the parent project will be continued under the AF, including the presence of an international procurement expert and international technical expert in the bid evaluation committee for internationally advertised procurements.

The climate and disaster risk screening was undertaken for the AF. Characterization of risks due to climate change and geophysical hazard on project components was assessed and potential impact due to exposure from hazards is modulated by project's non-physical components, especially through capacity building activities. Institutional strengthening on improved management of water demand and supply, water quality and quantity, water use monitoring and information, water pricing and sustainability are key under the current project and will be continued to build long term resilience to the anticipated risks. In addition potential impacts to the project components by timeframe, especially considering future climate variability and change on physical infrastructure have been taken into account and appropriate measures will be undertaken for contract package W5 and on-going works that are to be completed with AF.

16. **Implementation Readiness:** The Government's internal approval process for AF has been completed. All activities are well prepared to continue their rapid implementation upon receiving the AF resources, and a detailed implementation plan has been prepared. The procurement plan for the project has been updated to reflect the AF activities.

IV. WORLD BANK GRIEVANCE REDRESS

17. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

Annex 1: Results Framework

BANGLADESH: Chittagong Water Supply Improvement and Sanitation Project

Additional Financing Result Framework (Cumulative Targets)

Project Development Objectives											
Original Project Development Objective - Parent:											
The objective of the Project is to increase the sustainable access to safe water and improved sanitation, as well as support the establishment of a long term water supply, sanitation and drainage infrastructure development and operational management program in Chittagong.											
Current Project Development Objective - Parent:											
The revised PDO is to increase access to safe water and improve CWASA's institutional capacity and investment planning for sanitation and drainage in Chittagong City.											
Proposed Project Development Objective - Additional Financing (AF): Same as current PDO.											
Cumulative Target Values											
Status ¹	Indicator Name	Unit of Measure	Core	Base Line Value	Current Value 31 March 2017	Target Value 31 Dec 2018	Target Value 31 March 2020	Frequency	Data Source/ Methodology	Responsibility for Data Collection	Remarks
PDO Level Results Indicators											
Revised	Number of people in urban areas provided with access to Improved Water Sources under the Project.	Number (cumulative)	x	1500	254,400	552000	648000	Annual	CWASA Management Information Reports (MIR)	CWASA/ PMU	With extension of end date the target value is corrected and revised.

¹ Please note that "revised" refers only to a change in end -target values. The definition of all PDO and Intermediate Indicators remain the same

Revised	CWASA achieve O&M cost coverage from direct water sales revenues.	Percentage		66	80	85	85	Annual	Annual Performance Audit Reports	CWASA/ PMU	End date extended. No change in end target value
Revised	Water utility maturity level.	Number score between 1-5 on the maturity scale		2	2	3	3	Biennial	Consultant Report	CWASA (Institutional Development Task Force)	Change in end date. No change in target value
No Change	Total value of priority sanitation and drainage investments identified, prepared and ready for financing.	Million, USD (cumulative)		0	100	150	-	Annual	Updated Sanitation and Drainage Master Plan	CWASA/ PMU	To be achieved in 2018
Intermediate Results (Component One):											
Revised	Length of new pipelines installed.	Kilometers (cumulative)		7.5	38	50	60	Semi-annual	Works contract	CWASA/ PMU	Target value increased with change of end date
Revised	New piped household connections that are resulting from project intervention.	Number (cumulative)	x	650	3,600	8,000	10000	Semi-annual	CWASA MIR	CWASA/ PMU	Change in target value with revised end date
Revised	Length of pipeline replaced / rehabilitated.	Kilometers (cumulative)		0	26	69	73	Semi-annual	Works contract	CWASA/ PMU	Change in target value with revised end date
Revised	Piped household water connections that are benefiting from rehabilitation works undertaken by the project.	Number (cumulative)	x	0	7,000	15,000	17000	Semi-annual	CWASA MIR	CWASA/ PMU	Change in target value with revised end date

Revised	Improved community water points constructed or rehabilitated under the project.	Number (cumulative)	x	0	60	120	150	Semi-annual	Works contract	CWASA/PMU	Change in target value with revised end date
Revised	Number of water utilities that the project is supporting.	Number (cumulative)		1	1	1	1	One-time	Financing Agreement	CWASA	Change in end date only
Revised	Number of other water service providers that the project is supporting.	Number (cumulative)		0	2	2	2	Annual	MoUs/Agreements	CWASA/PMU	Change in end date only.
Revised	Volume of safe water produced by CWASA.	MLD		179	270	315	360	Semi-annual	CWASA MIR	CWASA/PMU	Change in target value with revised end date.
Intermediate Results (Component Two):											
No Change	Sanitation and drainage strategy and master plan prepared and approved by CWASA Board	Yes/No		No	No	Yes	-	One-time	Master Plan Report; and Board Resolution	CWASA/PMU	To be completed in 2018
Intermediate Results (Component Three):											
Revised	Volume of safe water sold/billed by CWASA	(Million liters per year # MLY)		54,816	78,840	91,980	105120	Semi-annual	CWASA MIR	CWASA/PMU	Change in target value with revised end date
Revised	CWASA's Bill Collection Ratio.	Percentage		97	95	99	99	Semi-annual	CWASA MIR	CWASA/PMU	Change in end date only

No change	Institutional capacity development program prepared and approved by CWASA Board.	Yes/No		No	Yes	Yes	-	Annual	Program document; Board Resolution	CWASA Institutional Development Task Force	To be completed in 2018
Revised	Percentage of institutional capacity development activities supported by the project that are completed.	Percentage		40	50	60	60	Semi-annual	Program monitoring reports	CWASA Institutional Development Task Force	Change in end date only.
No change	New organogram prepared and approved by CWASA Board.	Yes/No		No	Yes	Yes	-	Yes	Consultant Report; Board Resolution	CWASA Institutional Development Task Force	To be completed in 2018
No change	Staff training and development program prepared and approved by CWASA Board.	Yes/No		No	Yes	Yes		One-time	Program Document; Board Resolution	CWASA Institutional Development Task Force	To be completed in 2018
Revised	No. of staff trained as per approved staff training and development program.	Number (cumulative)		0	134	300	350	Semi-annual	Program monitoring reports	CWASA Institutional Development Task Force	Change in target value with revised end date
Revised	Standard operating procedures and O&M manuals prepared and staff trained in their use.	Yes/No		No	Yes	Yes	Yes	Semi-annual	SOPs; manuals; Training	CWASA Institutional Development Task Force	Change in end date only.
No change	Commercial management plan prepared and approved by CWASA Board.	Yes/No		No	No	Yes	-	One-time	Commercial management plan; Board resolution	CWASA Institutional Development Task Force	To be completed in 2018
No change	Management information systems plan prepared and approved by CWASA Board.	Yes/No		No	No	Yes	-	One-time	MIS plan; Board resolution	CWASA Institutional Development Task Force	To be completed in 2018

No change	Customer services improvement plan prepared and approved by CWASA Board.	Yes/No		No	No	Yes	-	One-time	Customer services plan and Board resolution	CWASA Institutional Development Task Force	To be completed in 2018
No change	No. of zonal offices refurbished and equipped under the project.	Number (cumulative)		0	4	4	4	Annual	Works contract	CWASA/PMU	To be completed in 2018

Annex 2: Revised Estimated Project Costs

BANGLADESH: Chittagong Water Supply Improvement and Sanitation Project

Project Components	Current Project US\$ Million		Additional Financing US\$ Million		Total US\$ Million		
	IDA	Government Financing*	IDA	Government Financing	IDA	Government Financing	TOTAL
Component 1: Water Supply Improvements	131.75	13.55	46.00	35.56	177.75	49.11	226.86
Component 2: Investment planning for sanitation and drainage	2.73	0.67	1.49	0	4.22	0**	4.22
Component 3: Institutional Capacity Development and Project Management Support	8.56	2.54	0	0	8.56	2.54	11.10
Total Project Cost	143.04	16.76	47.49	35.56	190.53	51.65	242.18

* GoB financing at appraisal

**Indicates no GoB contribution in the Revised Development Project Proforma

NOTE: IDA finance for the revised (restructured) project was SDR 112.5 million (equivalent US\$ 157.87 million as per exchange rate of March 19, 2014). Equivalent value of the credit amount is US\$ 143.04 million as per World Bank Client Connection Financial Data as of April 24, 2017.

The counterpart financing (GoB contribution) under the AF would be on parallel basis. USD 35.56 million would be used to finance: (i) all land required for the purposes of the Project; (ii) all resettlement and rehabilitation compensations set forth in each applicable RAP; (iii) customs duties and value added taxes on imports; (iv) road cutting charges; and (v) recurrent expenditures such as workshop allowances, sitting allowances, cash per diems, honoraria and fuel. The estimated taxes under the AF is expected to be below 15% of the project cost.