

# Project Administration Manual

Project Number: 42173-01  
Loan Number: LXXXX  
September 2013

Bangladesh: Dhaka Environmentally Sustainable  
Water Supply Project

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### **Project Administration Manual Purpose and Process**

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with Government and Asian Development Bank (ADB) policies and procedures. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

Dhaka Water Supply and Sewerage Authority (DWASA) is wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by DWASA of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At Loan Negotiations the borrower and ADB shall agree to the PAM and ensure consistency with the Loan agreement. Such agreement shall be reflected in the minutes of the Loan Negotiations. In the event of any discrepancy or contradiction between the PAM and the Loan Agreement, the provisions of the Loan Agreement shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP) changes in implementation arrangements are subject to agreement and approval pursuant to relevant Government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval they will be subsequently incorporated in the PAM.

## Abbreviations

ADB	=	Asian Development Bank
ADF	=	Asian Development Fund
AFD	=	<i>Agence Francaise de Developpment</i>
AFS	=	audited financial statements
CQS	=	consultant qualification selection
DMF	=	design and monitoring framework
DNI	=	distribution network improvement
DWASA	=	Dhaka Water Supply and Sewerage Authority
EARF	=	environmental assessment and review framework
EIA	=	environmental impact assessment
EIB	=	European Investment Bank
EMP	=	environmental management plan
ESMS	=	environmental and social management system
GACAP	=	governance and anticorruption action plan
GDP	=	gross domestic product
ICB	=	international competitive bidding
IEE	=	initial environmental examination
IPP	=	indigenous people plan
IPPF	=	indigenous people planning framework
LAR	=	land acquisition and resettlement
LGD	=	Local Government Division
LIBOR	=	London interbank offered rate
MLD	=	million liters per day
MLGRDC	=	Ministry of Local Government, Rural Development and Cooperatives
MSC	=	management and supervision consultant
NCB	=	national competitive bidding
NGOs	=	nongovernment organizations
NRW	=	nonrevenue water
PAI	=	project administration instructions
PAM	=	project administration manual
PCU	=	project coordination unit
PMU	=	project management unit
QBS	=	quality based selection
QCBS	=	quality- and cost based selection
RRP	=	report and recommendation of the President to the Board
SBD	=	standard bidding documents
SGIA	=	second generation imprest accounts
SOE	=	statement of expenditure
SPS	=	Safeguard Policy Statement
SPRSS	=	summary poverty reduction and social strategy
TOR	=	terms of reference
WTP	=	water treatment plant

## I. PROJECT DESCRIPTION

1. 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.

2. **Impact and Outcome:** The impact will be improved access to and quality of sustainable water supply services in Dhaka. The outcome will be more reliable and improved security of water supply in Dhaka.

3. **Outputs:** The project will have the following outputs.

4. **Output 1: New surface water supply system developed.** A raw water intake will be developed at Meghna River, about 30 kilometers (km) east of Dhaka, with structures and a pumping station having capacity to provide a total of 2,000 MLD of raw water.<sup>1</sup> Equipment such as pumps will be procured for 525 MLD only for the first phase of a new WTP at Gandharbpur. The Gandharbpur WTP, located about 10 km east of Dhaka, will be constructed with production capacity of 500 MLD. A raw water transmission pipeline from the intake to the WTP will also be constructed.<sup>2</sup> The project also includes a treated water transmission pipeline from the WTP to the injection point of the existing distribution network and distribution reinforcements. The WTP will serve the population of about 3 million in Badda, Gulshan, Mirpur, and Uttara (whole zones 5, 8, and 9; and part of zones 4 and 10). A design–build contract will incentivize design innovation, and ensure an integrated design and operation from the intake to the WTP. The same contractor will be engaged in the first 3 years of operation to prove the functionality, and build the capacity of DWASA personnel to manage and operate the facilities.

5. **Output 2: Distribution network strengthened.** As a continuation of the ongoing efforts toward NRW reduction, distribution network improvements will be implemented in zone 6 of DWASA's service areas. New or regularized connections at community or household levels will be provided in low-income communities in this zone under DWASA's existing pro-poor community support scheme. Public awareness-raising programs will be conducted to strengthen understanding on water use and conservation, customer services, metered connections, and billing systems. The capacity of DWASA in engaging and supporting low-income communities will be strengthened. At the same time, feasibility studies and preparation of bid documents will be undertaken for distribution network improvements in two densely populated zones in the DWASA service area (zones 1 and 2) to complete the distribution network improvement works.<sup>3</sup>

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<sup>1</sup> The final capacity of the intake is 2,000 MLD—1,050 MLD for Gandharbpur WTP (including the second phase of 500 MLD) and 950 MLD for Saidabad WTP (including the third phase of 450 MLD). A safety margin of 5% has been added for the capacity of the intake for both WTPs.

<sup>2</sup> Land required for raw water transmission pipelines for both WTPs, including for the second phase of Gandharbpur WTP and the third phase of Saidabad WTP, will be acquired under the project.

<sup>3</sup> Under the ongoing ADB-financed project (footnote 6), network improvement is ongoing in five zones (3, 4, 5, 8, and 10), and bid documents were prepared for two more zones (6 and 9). The proposed project will cover zone 6 and prepare bid documents for two more zones. The remaining two zones are in Narayanganj district and nearby (zone 7), where the network system is relatively new.

6. **Output 3: Project management and administration adequately supported.** Support will be provided for smooth and effective project implementation and operation by the project management unit (PMU) in DWASA. A new PMU for the project was established in May 2013, with core staff appointed. A project coordination unit in zone 6 will be involved in the implementation of output 2 to ensure a smooth transfer and successful O&M after project completion. As the nature and project areas of outputs 1 and 2 are distinct, two teams of management and supervision consultants will be engaged. Three teams of nongovernment organizations (NGOs) will be engaged to facilitate the implementation of resettlement plans and assist in awareness-raising and community-related tasks.

## II. IMPLEMENTATION PLANS

### A. Project Readiness Activities

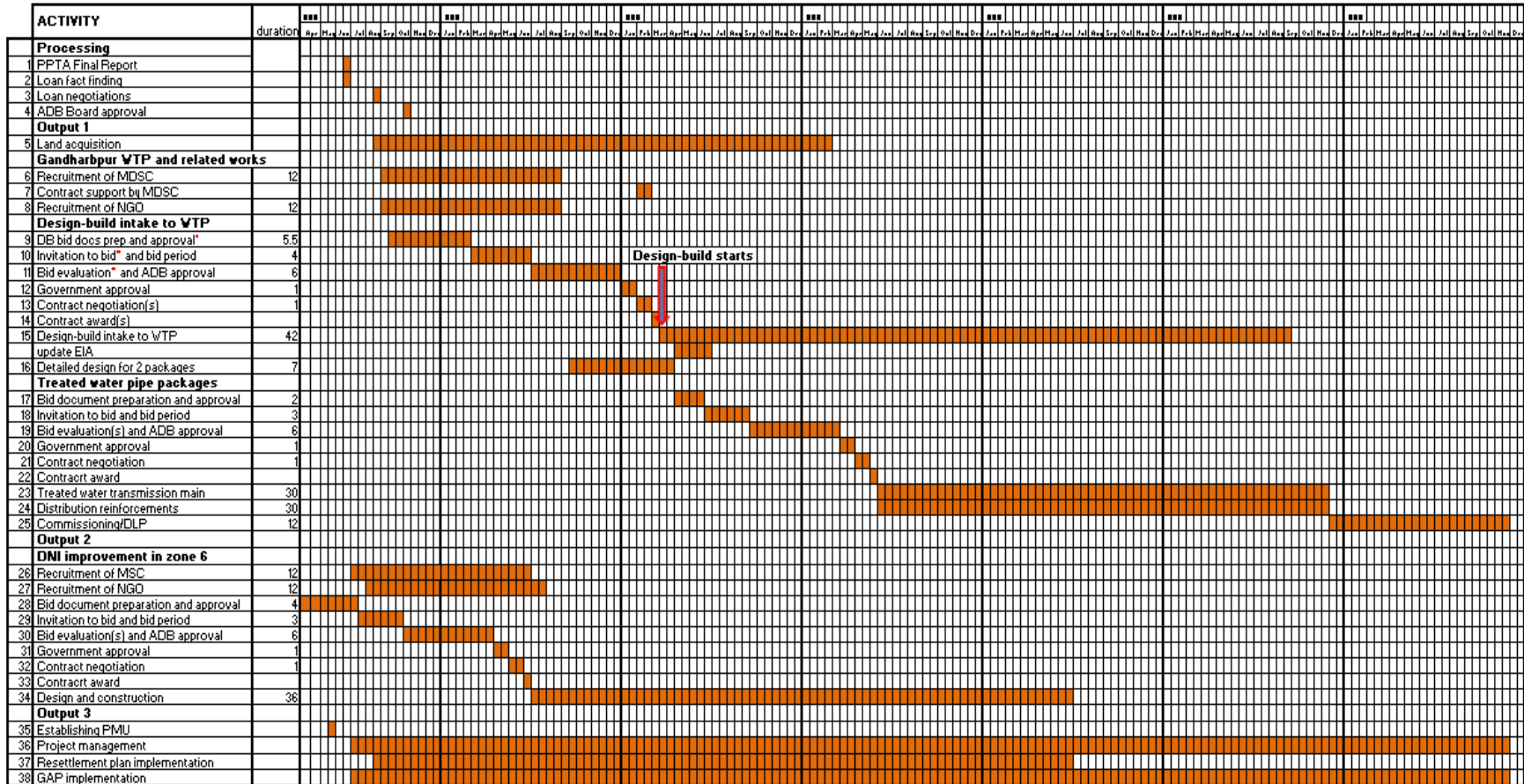
**Table 1: Project Readiness Activities**

Activities	2013						2014		Who responsible
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	
Advance contracting actions									
(i) Procurement of ICB 2.7 and Management and Supervision Consultants for ICB 2.7 (issuing bids and EOI)	X								DWASA
(ii) Supervision consultants for Gandharbpur WTP (notice to EOI)			X						DWASA
(iii) Procurement of design-build contractors (starting bid doc preparation)			X						DWASA
Establish Project Management Unit	X								DWASA
ADB Board approval				X					ADB
Loan signing						X			ADB/Government
Government legal opinion provided							X		Government
Loan effectiveness								X	ADB

ADB = Asian Development Bank, DWASA = Dhaka Water Supply and Sewerage Authority, EOI = expression of interest, ICB = international competitive bidding, WTP = water treatment plant.

B. Overall Project Implementation Plan

Table 2: Overall Project Implementation Plan



DB = design-build, DLP = defect liability period, DNI = distribution network improvement, DWASA = Dhaka Water Supply and Sewerage Authority, GAP = gender action plan, MDSC = management, design, and supervision consultant, MSC = management and supervision consultant, NGO = non-government organization, PMU = project management unit, WTP = water treatment plant.

- \* : assisted by consultants engaged by ADB using PPTA savings
- DBO package 1 : Intake - raw water pipeline to Gandharbpur WTP - Gandharbpur WTP
- package 2 : Treated water pipeline from WTP to the injection point
- package 3 : Distribution reinforcements inside the network

### III. PROJECT MANAGEMENT ARRANGEMENTS

#### A. Project Implementation Organizations – Roles and Responsibilities

**Table 3: Project Implementation and its Roles and Responsibilities**

<b>Project Implementation Organizations</b>	<b>Management Roles and Responsibilities</b>
<ul style="list-style-type: none"> <li>• Executing agency: Dhaka Water Supply and Sewerage Authority (DWASA)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Executes the project.</li> <li>➤ Makes timely decisions on all matters relating to project implementation.</li> <li>➤ Ensures minimum staff turnover of PMU.</li> <li>➤ Takes full responsibility for O&amp;M of project facilities.</li> </ul>
<ul style="list-style-type: none"> <li>• Ministry of Local Government, Rural Development and Cooperatives (MLGRDC)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Provides overall guidance and supervision to the project implementation.</li> <li>➤ Chairs the Project Steering Committee (PSC) meeting (Secretary, Local Government Division).</li> <li>➤ Coordinates with other ministries and agencies at the central level.</li> <li>➤ Allocates adequate government budget for project implementation.</li> <li>➤ Takes the lead in establishing a transparent, predictable, and independent tariff-setting mechanism.</li> </ul>
<ul style="list-style-type: none"> <li>• Project Management Unit, DWASA</li> </ul>	<ul style="list-style-type: none"> <li>➤ Supervises and manages the project implementation to ensure timely completion of the project.</li> <li>➤ Monitors and ensures the compliance of loan covenants.</li> <li>➤ Updates procurement plan and implements the procurement in accordance with the plan.</li> <li>➤ Serves as point of contact with ADB and cofinanciers, maintains project documents, and submits reports (quarterly progress reports and project completion report).</li> <li>➤ Consolidates accounts and submits withdrawal applications to ADB.</li> <li>➤ Opens and manages imprest account.</li> <li>➤ Submits all audited project accounts and financial statements pertaining to the project within 6 months of the end of each fiscal year.</li> </ul>
<ul style="list-style-type: none"> <li>• Project Coordination Unit, DWASA</li> </ul>	<ul style="list-style-type: none"> <li>➤ Supports the contract execution at the zonal level.</li> <li>➤ Ensures smooth and efficient O&amp;M.</li> </ul>
<ul style="list-style-type: none"> <li>• Project Steering Committee</li> </ul>	<ul style="list-style-type: none"> <li>➤ Reviews project performance and discuss key policy related issues.</li> </ul>



Project Implementation Organizations	Management Roles and Responsibilities
<ul style="list-style-type: none"> <li>• Project Implementation Committee</li> <li>• ADB</li> </ul>	<ul style="list-style-type: none"> <li>➤ Provides guidance to the Project.</li> <li>➤ Ensures collaboration among central level agencies.</li> <li>➤ Reviews project progress and discusses and advises on major issues for smooth implementation</li> <li>➤ Facilitates collaboration among relevant agencies.</li> <li>➤ Supervises overall project implementation.</li> <li>➤ Takes the lead in coordinating with cofinanciers.</li> <li>➤ Fields review missions, midterm review mission, and project completion review mission to assess project implementation progress and compliance with loan covenants.</li> <li>➤ Reviews PMU's submissions for procurement of goods, civil works, and services.</li> </ul>

## B. Key Persons Involved in Implementation

### Executing Agency

DWASA

Officer's Name: Mr. Kabir Ahmad Khan  
 Position : Project Director  
 Telephone: +88-02-818-9203  
 Email address: [pddeswsdp@gmail.com](mailto:pddeswsdp@gmail.com)  
 Office Address: WASA Bhaban, 98 Kazi Nazrul Islam Avenue, Kawran Bazar, Dhaka-1215

### ADB

Urban Development and Water Division (SAUW)

Staff Name: Mr. Fei Yue  
 Position: Director, SAUW  
 Telephone No. +63 2 632 6858  
 Email address: [fyue@adb.org](mailto:fyue@adb.org)

Mission Leader

Staff Name: Mr. Norio Saito  
 Position: Principal Urban Development Specialist, SAUW  
 Telephone No. +63 2 632 6258  
 Email address: [nsaito@adb.org](mailto:nsaito@adb.org)

## C. Project Organization Structure

7. DWASA will be responsible for the overall management, supervision and execution of the Project. A PMU will be established and will consist of one full-time project director in the rank of additional chief engineer and two dedicated deputy project directors in the rank of superintending engineers, responsible for civil works and electro-mechanical works. Senior finance and account officer will be recruited from outside of DWASA through competitive selection process. The project director and deputy project directors will be appointed exclusively

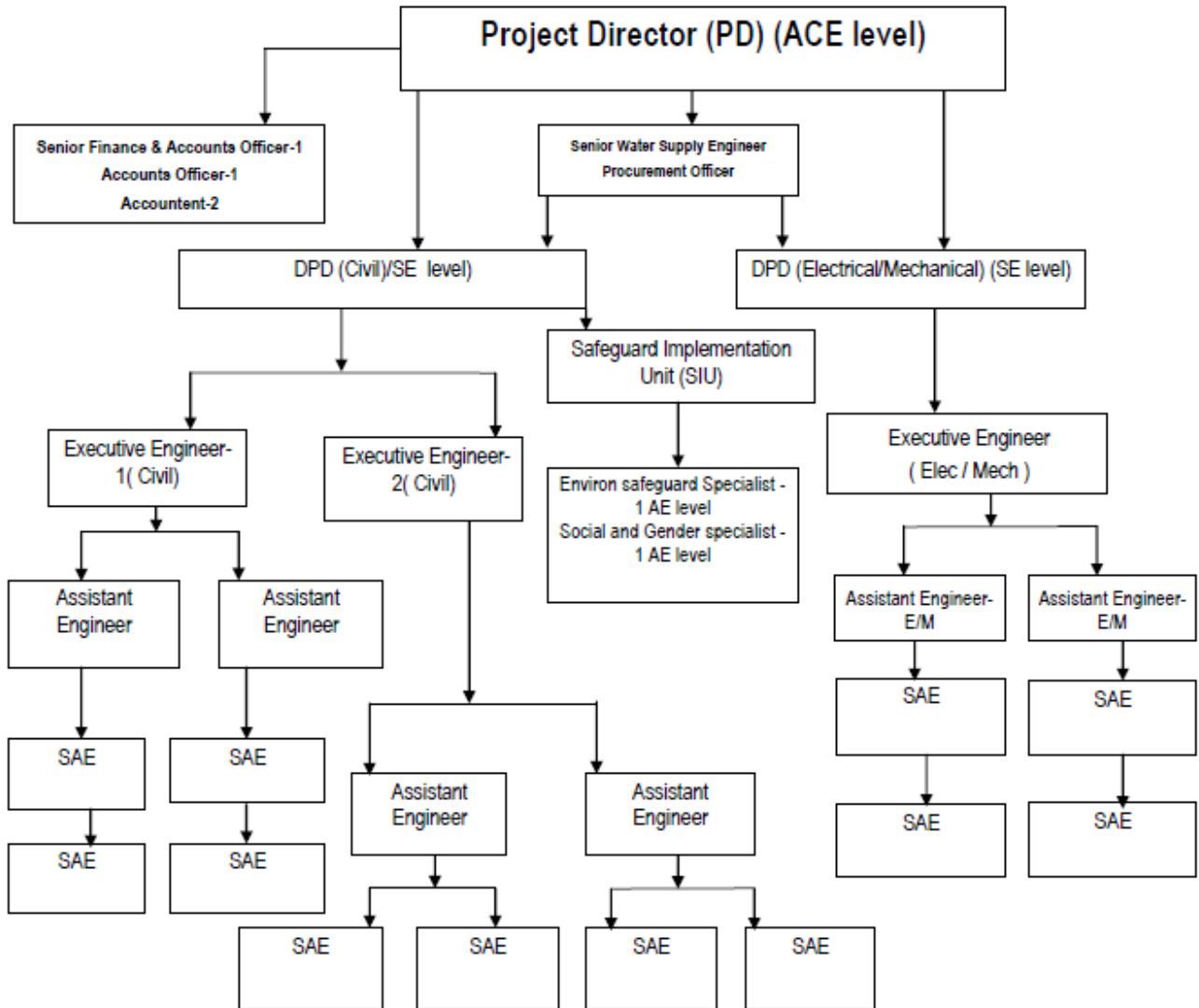
to the Project. At least three executive engineers will assist the deputy project directors in managing the works under them.

8. Project coordination unit (PCU) in zone 6, headed by an executive engineer, will be responsible for liaising and coordinating with the contractors, MSC, NGO, and other stakeholders on all day-to-day implementation of distribution network improvement work under the project. To strengthen the PCU in conducting these activities and addressing their day-to-day O&M issues, DWASA will assign additional staff for the project period.

9. An inter-ministerial project steering committee (IPSC), chaired by secretary of LGD, will be established to provide policy guidance and overall coordination of project implementation. Its members will include managing director, DWASA; project director of PMU; representatives from Bangladesh Inland Water Transport Authority; Dhaka North City Corporation; Dhaka South City Corporation; Economic Relations Division and the Finance Division of MoF, Planning Commission; the Implementation Monitoring and Evaluation Division; RAJUK (the capital development authority); Department of Environment; Bangladesh Water Development Board; Local Government Division; Local Government Engineering Department; Ministry of Land; Power Grid Company Bangladesh Ltd; Roads and Highway Department; Rural Electrification Board. The PSC will hold its first meeting within 3 months of loan effectiveness, and will meet at least twice annually thereafter, to coordinate and resolve any issues in project implementation. Minutes of its meetings will be forwarded to ADB and cofinanciers for information.

10. A project implementation committee (PIC), chaired by Managing Director of DWASA, will be established to discuss key project implementation issues and provide guidance for smooth implementation. Its members will include representatives from the same agencies mentioned above, utility services, nominees of local members of parliament (MP), and Deputy Managing Director (Research, Planning, and Development) of DWASA. The PIC will meet at least quarterly, and more often as needed. Minutes of its meetings will be forwarded to ADB and cofinanciers for information.

**Figure 1: Project Management Unit**



ACE = additional chief engineer, DPD = deputy project director, SAE = sub-assistant engineer, SE = superindending engineer.

PD = 1, DPD = 2, EE = 3, AE = 6, SAE = 12, Finance/account = 4, safeguards = 2, water supply = 1, procurement = 1, total =32

#### IV. COSTS AND FINANCING

11. The project is estimated to cost \$674.9 million.<sup>4</sup> The government has requested a loan in various currencies equivalent to \$250 million from ADB's Special Funds (ADF) resources to help finance the project. The loan will have a 25-year term, including a grace period of 5 years, an interest rate of 2.0% per annum during the grace period and thereafter. The loan from ADB will finance (i) part of civil works and equipment costs, (ii) consulting services, (iii) incremental recurrent staff costs, and (iv) financing charges during construction. The government has also requested AFD and EIB to jointly finance a part of civil works and equipment costs with a loan equivalent of \$100 million from each agency. The government will provide \$224.9 million equivalent to cover (i) taxes and duties, (ii) land acquisition and resettlement, and (iii) road cutting, power supply, and other expenses paid to government agencies.<sup>5</sup>

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<sup>4</sup> This does not include costs for the first 3-year operation, which will be solely financed by DWASA.

<sup>5</sup> The ADB funding may finance transportation and insurance costs.

## A. Detailed Cost Estimates by Expenditure Category

**Table 4: Cost Estimates by Expenditure Category (\$ million)**

	Total \$ million	% of Total Base Cost
<b>A. Investment Costs<sup>a</sup></b>		
1 Civil Works	<b>295.30</b>	<b>51.0%</b>
1.1 Intake	20.48	
1.2 Water Treatment Plant	56.50	
1.3 Raw Water Pipes	75.47	
1.4 Treated Water Pipes and tube well	111.99	
1.5 Distribution Network Improvement	30.89	
2 Mechanical and Equipment	<b>70.00</b>	<b>12.0%</b>
1.1 Intake	10.14	
1.2 Water Treatment Plant	53.44	
1.3 Raw Water Pipes	0.00	
1.4 Treated Water Pipes	0.00	
1.5 Distribution Network Improvement	6.44	
3 Land Acquisition	79.40	14.0%
4 Consulting Services <sup>b</sup>	20.64	4.0%
5 NGOs for assisting RP implementation	1.49	0.5%
6 Power Supply	1.62	0.5%
7 Duties and Taxes <sup>c</sup>	<b>113.13</b>	<b>19.0%</b>
7.1 Intake	5.79	
7.2 Water Treatment Plant	27.21	
7.3 Raw Water Pipes	36.05	
7.4 Treated Water Pipes and tubewell	31.23	
7.5 Distribution Network Improvement	12.85	
<b>Subtotal (A)</b>	<b>581.64</b>	<b>99.5%</b>
<b>B. Recurrent Costs<sup>d</sup></b>		
1 PMU staff salaries <sup>e</sup>	1.95	0.3%
2 Equipment and O&M	1.09	0.2%
<b>Subtotal (B)</b>	<b>3.04</b>	<b>0.5%</b>
<b>Total Base Cost</b>	<b>584.67</b>	<b>100.0%</b>
<b>C. Contingencies</b>		
1 Physical <sup>f</sup>	17.27	2.9%
2 Price <sup>g</sup>	51.53	8.8%
<b>Subtotal (C)</b>	<b>68.80</b>	<b>11.7%</b>
<b>D. Financing Charges During Implementation<sup>h</sup></b>		
1 Interest During Implementation	20.91	3.5%
2 Commitment Charges	0.50	0.0%
<b>Subtotal (D)</b>	<b>21.4</b>	<b>3.5%</b>
<b>Total Project Cost (A+B+C+D)</b>	<b>674.89</b>	<b>115.0%</b>

\*Total may not add correctly due to rounding off

<sup>a</sup> In mid-2013 prices.

<sup>b</sup> This includes costs of skills training and capacity building of DWASA officers/staff.

<sup>c</sup> This includes road cutting costs.

<sup>d</sup> This includes bank charges, local transport and insurance.

<sup>e</sup> Salary of PMU staff, most of whom are permanent DWASA staff and some are recruited for the project, will be paid by the project. They will not receive salaries from DWASA separately.

<sup>f</sup> Computed at 3 % for distribution network improvement and 6% for other components.

<sup>g</sup> Computed on average at 2 % on foreign exchange costs and on average at 7 % on local currency costs and include provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

<sup>h</sup> Includes interest for ADB, AFD, and EIB and commitment charges for AFD and EIB. Interest during construction for ADB, EIB and AFD loans have been computed at 2%, 2.98% and 3.07% respectively. Commitment charges of AFD and EIB are 0.25%.

**B. Allocation and Withdrawal of Loan Proceeds**

**Table 5: Allocation and Withdrawal of Loan Proceeds**

ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS (Dhaka Environmentally Sustainable Water Supply Project)				
CATEGORY				ADB FINANCING
Number	Item	Total Amount Allocated for ADB Financing SDR (\$ in parenthesis)		Percentage and Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1	Civil Works and Equipment	121,351,000 (183,880,000)		
1A	Intake, raw water pipeline, and water treatment plant		22,808,000 (34,560,000)	16% of total expenditure claimed <sup>a</sup>
1B	Treated water pipeline, tube well, and miscellaneous		73,907,000 (111,990,000)	100% of total expenditure claimed*
1C	Distribution network improvement		24,636,000 (37,330,000)	100% of total expenditure claimed*
2	Consulting and NGO services	14,605,000 (22,130,000)		100% of total expenditure claimed*
3	Incremental recurrent costs	2,006,000 (3,040,000)		100% of total expenditure claimed*
4	Interest charge	5,906,000 (8,950,000)		100% of amounts due
5	Unallocated	21,118,000 (32,000,000)		
	<b>Total</b>	<b>164,986,000</b> <b>(250,000,000)</b>		

\* Exclusive of taxes and duties and road cutting costs

<sup>a</sup> This package shall be jointly cofinanced with AFD and EIB. The percentage shall be adjusted at the time of contract award.

## C. Detailed Cost Estimates by Financier

Table 6: Cost Estimates by Financier

Item	(\$ million)								Total Cost
	ADB		AFD		EIB		GOB		
	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	
	{A}	{A/E}	{B}	{B/E}	{C}	{C/E}	{D}	{D/E}	{E}
<b>A. Investment Costs</b>									
1 Civil Works	167.27	56.60%	64.03	21.65%	64.03	21.65%	0	0.00%	295.32
1a – Intake, raw water pipeline, WTP	24.39	16.00%	64.03	42.00%	64.03	42.00%	0	0.00%	152.44
1b – Treated Water Pipeline and tubewell	111.99	100%	0	0.00%	0	0.00%	0	0.00%	111.99
1c – Distribution Network Improvement	30.89	100%	0	0.00%	0	0.00%	0	0.00%	30.89
2 Mechanical and Equipment	16.61	23.70%	26.71	38.15%	26.71	38.15%	0	0.00%	70.02
2a – Intake and WTP	10.17	16.00%	26.71	42.00%	26.71	42.00%	0	0.00%	63.58
2b- Distribution Network Improvement	6.44	100%	0	0.00%	0	0.00%	0	0.00%	6.44
3 Land Acquisition	0	0.00%	0	0.00%	0	0.00%	79.4	100.00%	79.4
4 Consulting services	20.64	100.00%	0	0.00%	0	0.00%	0	0.00%	20.64
5 NGOs for assisting RP implementation	1.49	100.00%	0	0.00%	0	0.00%	0	0.00%	1.49
6 Power Supply	0	0.00%	0	0.00%	0	0.00%	1.62	100.00%	1.62
7 Taxes and Duties	0	0.00%	0	0.00%	0	0.00%	113.13	100.00%	113.13
<b>Subtotal (A)</b>	<b>206.01</b>	<b>35.40%</b>	<b>90.73</b>	<b>15.60%</b>	<b>90.73</b>	<b>15.60%</b>	<b>194.17</b>	<b>33.40%</b>	<b>581.62</b>
<b>B. Recurrent Costs</b>									
1 PMU staff salaries	1.95	100.00%	0	0.00%	0	0.00%	0	0.00%	1.95
2 Equipment and O&M	1.09	100.00%	0	0.00%	0	0.00%	0	0.00%	1.09
<b>Subtotal (B)</b>	<b>3.04</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>3.04</b>
<b>Total Base Cost</b>	<b>209.05</b>	<b>35.80%</b>	<b>90.73</b>	<b>15.50%</b>	<b>90.73</b>	<b>15.50%</b>	<b>194.17</b>	<b>33.20%</b>	<b>584.67</b>
<b>C. Contingencies</b>	<b>32</b>	<b>49%</b>	<b>9.275</b>	<b>13%</b>	<b>9.275</b>	<b>13%</b>	<b>18.25</b>	<b>25%</b>	<b>68.8</b>
<b>D. Financing Charges During Implementation</b>	<b>8.95</b>	<b>42.80%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>11.96</b>	<b>57.20%</b>	<b>21.41</b>
<b>Total Project Cost (A+B+C+D)</b>	<b>250</b>	<b>37.00%</b>	<b>100</b>	<b>14.80%</b>	<b>100</b>	<b>14.80%</b>	<b>224.88</b>	<b>33.30%</b>	<b>674.88</b>
<b>% Total Project Cost</b>		<b>37.0%</b>		<b>14.8%</b>		<b>14.8%</b>		<b>33.3%</b>	<b>100%</b>
		<b>250.00</b>		<b>100.00</b>		<b>100.00</b>		<b>224.88</b>	<b>674.88</b>

a Preparation notes:



- 1 ADB and other donors will not finance taxes and duties. Accordingly, these are provided separately as a line item.
- 2 Environmental monitoring cost and capacity building costs are absorbed in items 1 and 4. Costs associated with assisting implementation of resettlement plans and included in items 4 and 5. ADB will not finance land acquisition costs.
- 3 AFD and EIB have an equal share of \$100 million each, and contribute in exactly same financing ratios for the same categories of expenditures.
- 4 Universal procurement will apply to one package that will be jointly cofinanced by AFD and EIB.

Source: Asian Development Bank estimates.

## D. Detailed Cost Estimates by Outputs/Components

Table 7: Cost Estimates by Outputs/Components

Item	Total Cost	Output 1 (Gandharbpur)		Output 2 (DNI)		Output 3 (Project Management)	
		Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category
<b>A. Investment Costs</b>							
1 Civil Works	295.32	264.43	89.5%	30.89	10.5%	0	0.0%
2 Mechanical and Equipment	70.02	63.58	90.8%	6.44	9.2%	0	0.0%
3 Land Acquisition	79.4	79.4	100.0%	0.00	0.0%	0	0.0%
4 Consulting Services	20.64	18.56	89.9%	2.08	10.1%	0	0.0%
5 NGOs for assisting RP implementation	1.49	1.31	88.1%	0.18	11.9%	0	0.0%
6 Power supply	1.62	1.62	100.0%				
7 Taxes and duties	113.13	100.28	88.6%	12.85	11.4%	0	0.0%
<b>Subtotal (A)</b>	<b>581.62</b>	<b>529.17</b>	<b>91.0%</b>	<b>52.44</b>	<b>9.0%</b>	<b>0</b>	<b>0.0%</b>
<b>B. Recurrent Costs</b>							
1 PMU staff salaries	1.95	0	0.0%	0.00	0.0%	1.95	100.0%
2 Equipment and O&M	1.09	0	0.0%	0.00	0.0%	1.09	100.0%
<b>Subtotal (B)</b>	<b>3.04</b>	<b>0</b>	<b>0.0%</b>	<b>0.00</b>	<b>0.0%</b>	<b>3.04</b>	<b>100.0%</b>
<b>Total Base Cost</b>	<b>584.66</b>	<b>529.17</b>	<b>90.5%</b>	<b>52.44</b>	<b>9.0%</b>	<b>3.04</b>	<b>0.5%</b>
<b>C. Contingencies</b>							
1 Physical	17.27	15.77	91.3%	1.50	8.7%	0	0.0%
2 Price	51.53	44.73	86.8%	6.80	13.2%	0	0.0%
<b>Subtotal (C)</b>	<b>68.80</b>	<b>60.50</b>	<b>87.9%</b>	<b>8.30</b>	<b>12.1%</b>	<b>0.00</b>	<b>0.0%</b>
<b>D. Financing Charges During Implementation</b>	<b>21.41</b>	<b>19.97</b>	<b>93.3%</b>	<b>1.44</b>	<b>6.7%</b>	<b>0</b>	<b>0.0%</b>
<b>Total Project Cost (A+B+C+D)</b>	<b>674.87</b>	<b>609.64</b>	<b>90.3%</b>	<b>62.19</b>	<b>9.2%</b>	<b>3.04</b>	<b>0.5%</b>

## E. Detailed Cost Estimates by Year

Table 8: Cost Estimates by Year

(\$ million)

Item		Total Cost <sup>b</sup>	2014	2015	2016	2017	2018	2019
<b>A.</b>	<b>Investment Costs</b>							
1	Civil Works	<b>295.32</b>	<b>3.09</b>	<b>48.93</b>	<b>88.60</b>	<b>88.60</b>	<b>66.11</b>	<b>0.00</b>
	1a – Gandharbpur-related works	264.43	-	39.67	79.33	79.33	66.11	-
	1b – DNI	30.89	3.09	9.27	9.27	9.27	-	-
2	Mechanical and Equipment	<b>70.02</b>	<b>0.00</b>	<b>1.93</b>	<b>21.01</b>	<b>28.01</b>	<b>19.07</b>	<b>0.00</b>
	2a – Gandharbpur-related M&E	63.58	-	-	19.07	25.43	19.07	-
	2b – DNI-related M&E	6.44	-	1.93	1.93	2.58	-	-
3	Land Acquisition	<b>79.4</b>	79.40	-	-	-	-	-
4	Consulting services	<b>20.64</b>	<b>2.06</b>	<b>4.34</b>	<b>5.26</b>	<b>5.26</b>	<b>3.71</b>	<b>0.00</b>
	4a Gandharbpur-related	18.56	1.86	3.71	4.64	4.64	3.71	-
	4b DNI-related	2.08	0.21	0.62	0.62	0.62	-	-
5	NGOs for assisting RP implementation	<b>1.49</b>	0.15	0.38	0.38	0.38	0.20	-
	5a Gandharbpur-related	1.31	0.13	0.33	0.33	0.33	0.20	-
	5b DNI-related	0.18	0.02	0.05	0.05	0.05	-	-
6	Power supply	<b>1.62</b>	0.16	0.40	0.40	0.40	0.24	-
7	Taxes and duties	<b>113.13</b>	-	-	33.94	45.25	33.94	-
	<b>Subtotal (A)</b>	<b>581.62</b>	<b>84.86</b>	<b>55.99</b>	<b>149.59</b>	<b>167.91</b>	<b>123.27</b>	<b>0.00</b>
<b>B.</b>	<b>Recurrent Costs</b>							
1	PMU staff salaries	1.95	0.33	0.33	0.33	0.33	0.33	0.33
2	Equipment and O&M	1.09	0.18	0.18	0.18	0.18	0.18	0.18
	<b>Subtotal (B)</b>	<b>3.04</b>	<b>0.51</b>	<b>0.51</b>	<b>0.51</b>	<b>0.51</b>	<b>0.51</b>	<b>0.51</b>
	<b>Total Base Cost</b>	<b>584.66</b>	<b>85.37</b>	<b>56.49</b>	<b>150.10</b>	<b>168.41</b>	<b>123.78</b>	<b>0.51</b>
<b>C.</b>	<b>Contingencies</b>	<b>68.80</b>	5.31	2.88	13.73	23.29	23.59	-
<b>D.</b>	<b>Financing Charges During Implementation</b>	<b>21.41</b>	0.85	1.23	3.58	6.34	9.41	-
	<b>Total Project Cost (A+B+C+D)</b>	<b>674.87</b>	<b>91.53</b>	<b>60.60</b>	<b>167.41</b>	<b>198.04</b>	<b>156.77</b>	<b>0.51</b>
	<b>% Total Project Cost</b>	<b>100%</b>	<b>14%</b>	<b>9%</b>	<b>25%</b>	<b>29%</b>	<b>23%</b>	<b>0%</b>

## F. Contract and Disbursement S-curve

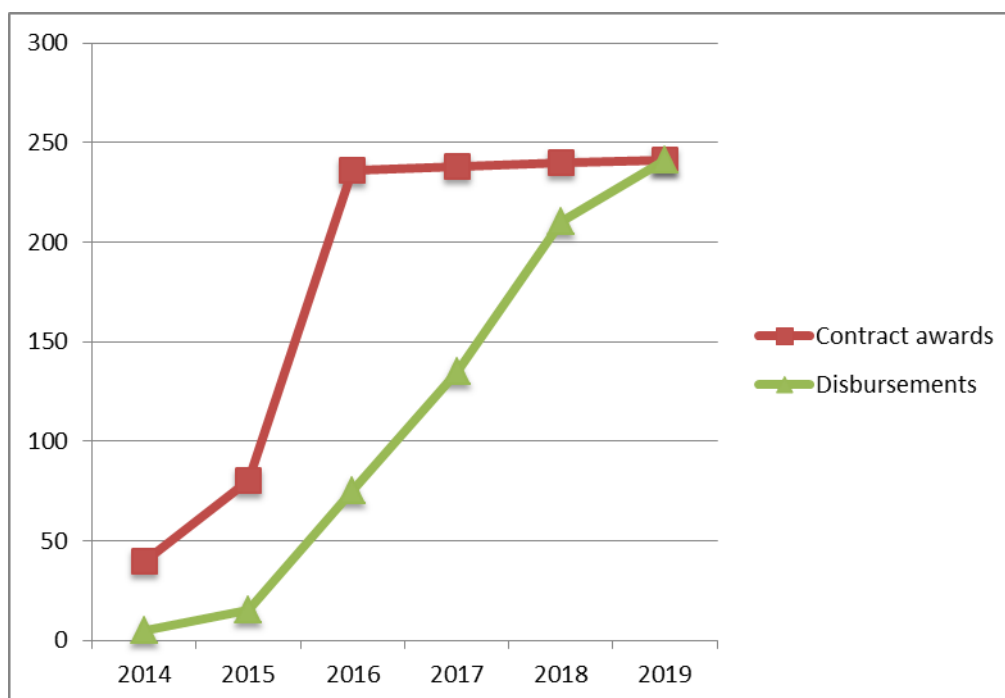
12. Contract awards and disbursement for the ADB portion are projected to be as follows:

**Table 9: Contract Awards and Disbursement (\$ million)**

(\$ million)	2014	2015	2016	2017	2018	2019	Total
<b>Contract awards</b>	40	40	156	2	2	1	<b>241</b>
<b>Disbursements</b>	5	10	60	60	75	31	<b>241</b>

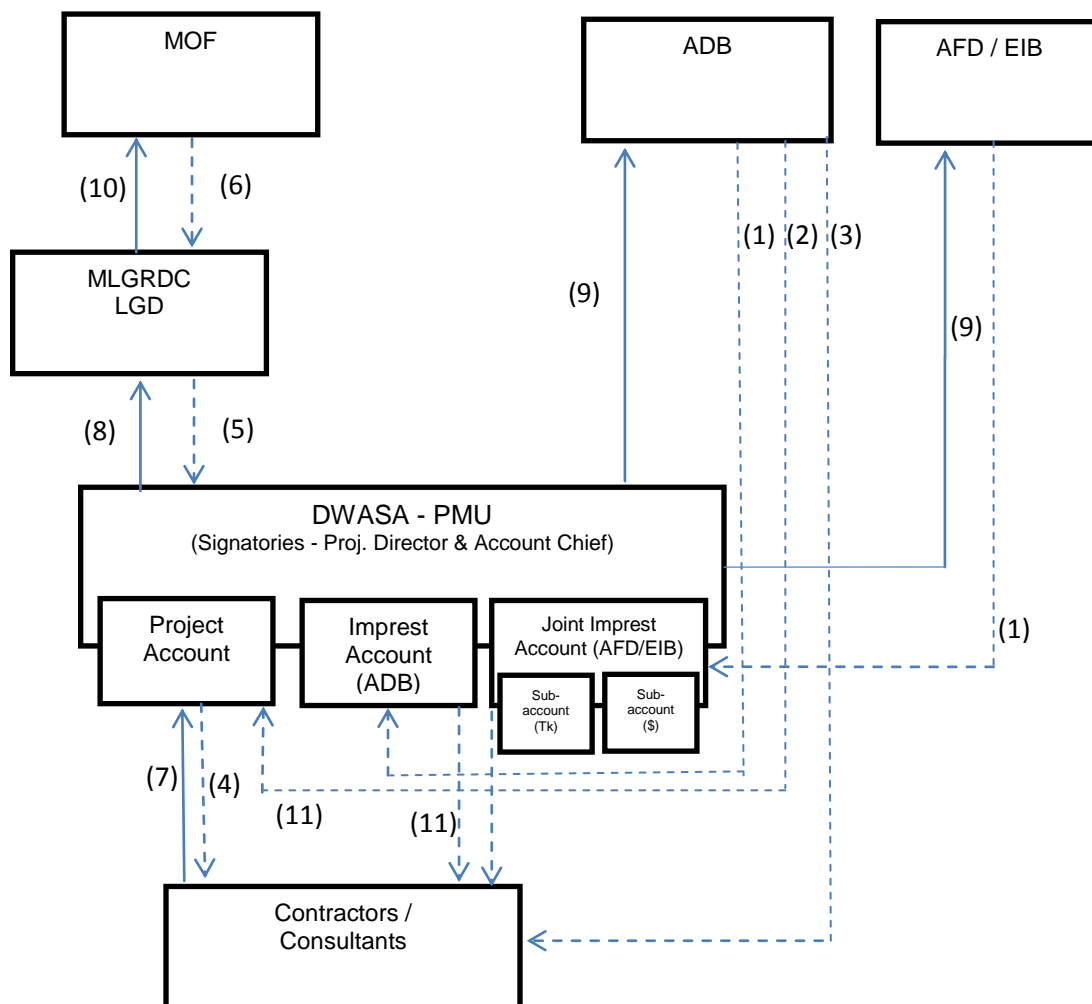
Financing charges during implementation are excluded.

**Figure 2: Contract and Disbursements S-curve**



## G. Fund Flow Diagram

Figure 3: Fund Flow Diagram



ADB = Asian Development Bank, DWASA = Dhaka Water Supply and Sewerage Authority, LGD = Local Government Division, MLGRDC = Ministry of Local Government, Rural Development and Cooperatives, MOF = Ministry of Finance, NGO = nongovernment organization, PMU = project management unit.

Document flow ———> Fund flow - - ->

### Fund Flow

- (1) Disbursement Procedure: Advance/Replenishment of Imprest Account
- (2) Disbursement Procedure: Reimbursement
- (3) Disbursement Procedure: Direct Payment / Commitment
- (4) Payment to Contractors/Consultants
- (5) Budget allocation
- (6) Budget allocation

### Document Flow

- (7) Invoice

- (8) Budget request
- (9) Withdrawal Applications
- (10) Budget request
- (11) Disbursement from Project Accounts to Contractors  
Disbursement from Imprest Account to Contractors

## V. FINANCIAL MANAGEMENT

### A. Financial Management Assessment

13. The financial management assessment (FMA) was conducted in accordance with ADB's Guidelines for the Financial Management and Analysis of Projects and Financial Due Diligence: a Methodology Note, and Technical Guidance Notes. The FMA considered the capacity of DWASA, with a focus on funds-flow arrangements, governance, staffing, budgeting, accounting and financial reporting systems, internal control procedures, financial information systems, and internal and external auditing arrangements. FMA indicates there are no significant FM risks. Nevertheless, given the on-going and planned major investments and expected strong increases of the DWASA annual operating and principal/interest (re)payments in the coming years, DWASA's top management should give more and serious attention to further financial management improvements. A number of reforms are already ongoing, including certain areas being addressed under ongoing ADB loans. Detailed financial management assessment is available as Supplementary Appendix 1.

### B. Disbursement

14. The Loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2012, as amended from time to time),<sup>6</sup> and detailed arrangements agreed upon between the government and ADB. Pursuant to ADB's Safeguard Policy Statement (2009) (SPS),<sup>7</sup> ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the SPS.

15. **Types of Disbursement Procedures.** There are four types of disbursement procedures:

- (i) Direct payment procedure is where the ADB, at the borrower's request, pays a designated beneficiary directly;
- (ii) Commitment procedure is where ADB, at the borrower's request, provides an irrevocable undertaking to reimburse a commercial bank for payments made or to be made to a supplier against a letter of credit financed from the loan account;
- (iii) Reimbursement procedure is where ADB pays from the loan account to the borrower's account for eligible expenditures which have been incurred and paid for by the project out of its budget allocation or its own resources; and
- (iv) Imprest fund procedure is where ADB makes an advance disbursement from the loan account for deposit to an imprest account to be used exclusively for ADB's share of eligible expenditures.

16. The four procedures are normally used for the following kinds of payment.

<b>Disbursement Procedures</b>	
<b>Disbursement Procedures</b>	<b>Suggested Types of Payment</b>
Direct payment	Mainly large civil works, progress payments, consultants' fees, procurement of goods.
Commitment	Importation costs
Reimbursement	Local currency costs for petty purchases, small civil works and services.

<sup>6</sup> Available at: [http://www.adb.org/Documents/Handbooks/Loan\\_Disbursement/loan-disbursement-final.pdf](http://www.adb.org/Documents/Handbooks/Loan_Disbursement/loan-disbursement-final.pdf)

<sup>7</sup> Available at: <http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf>

Disbursement Procedures	Suggested Types of Payment
Imprest fund	Contractors' bills and suppliers' invoices in foreign and local currency, numerous items of operating expenses, other relatively small eligible expenditures

17. DWASA will be responsible for (i) preparing disbursement projection, (ii) requesting budgetary allocations for counterpart funds, (iii) collecting supporting documents, and (iv) preparing and sending withdrawal applications to ADB.

18. Separate from ADB loan's imprest account, AFD and EIB will have a dedicated joint account to disburse their share of the funding for financing the design-build contract for water intake, WTP at Gandharbpur, and raw water pipeline in-between (package 1). This joint account will have two sub-accounts, one in BDT and the other in USD. Each single disbursement amount made by AFD or EIB will be a minimum of \$5 million. When the minimum 70% of each single disbursement has been utilized and justified, a new request for the next disbursement, based on projected expenses for the following 6 months (or \$5 million if this projection is below \$5 million) should be sent to AFD and EIB.

19. **Imprest Fund Procedure (ADB account).** Immediately upon loan effectiveness, the government will open an imprest account with the Bangladesh Bank for DWASA. The maximum ceiling of the imprest account will not at any time exceed 10% of the loan amount. The request for initial and additional advance to the imprest account should be accompanied by an Estimate of Expenditure Sheet setting out the estimated expenditures for the forthcoming 6 months of project implementation. For every liquidation and replenishment request of the imprest account, the borrower will furnish to ADB (a) Statement of Account (Bank Statement) where the imprest account is maintained, and (b) the Imprest Account Reconciliation Statement (IARS) reconciling the above mentioned bank statement against DWASA's records.<sup>8</sup>

20. **Statement of expenditures.** Statement of Expenditure (SOE) procedures will be used for the reimbursement, liquidation and replenishment of the imprest account, for eligible expenditures not exceeding \$100,000 per individual payment. Original supporting documentation for expenditures claimed under the SOE procedure should be retained by DWASA and made readily available for review by ADB's disbursement and review mission or upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit. ADB has designed specific SOE and summary sheet formats to facilitate accurate preparation of withdrawal applications.<sup>9</sup>

21. Before the submission of the first withdrawal application, DWASA should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application for ADB loan is \$100,000 equivalent, unless otherwise approved by ADB. Individual payments below this amount should generally be paid from the imprest/sub-account, or by the EA/IA and subsequently claimed to ADB through reimbursement. ADB reserves the right not to accept withdrawal applications below the minimum amount. Withdrawal applications and supporting documents will demonstrate, among other things, that the goods, and/or services were produced in or from ADB member countries,<sup>10</sup> and are eligible for ADB financing. Withdrawal applications and other loan disbursement information are available at the website of ADB's Controller's Department (<http://lfis.adb.org>).

<sup>8</sup> Follow the format provided in Appendix 10C of the *Loan Disbursement Handbook*.

<sup>9</sup> Follow the format provided in Appendix 7B, 8B, 9B and 9C of the *Loan Disbursement Handbook*

<sup>10</sup> Universal procurement will apply to package 1, as it will be jointly cofinanced by ADB, AFD, and EIB.



22. **Disbursement Practice.** DWASA should submit to ADB, annual contract awards and disbursement projections at least a month before the start of each calendar year. To expedite disbursement, ADB's *Loan Disbursement Handbook* has a dedicated section in Chapter 4 and Chapter 5 on (i) actions to be taken by the Borrower, (ii) basic requirements for disbursement, and (iii) withdrawal application.

### C. Accounting

23. DWASA will maintain separate project financial statements and records by funding source and by output components for all expenditures incurred on the Project in accordance with financial reporting arrangements acceptable to ADB. The project's financial statements will follow generally accepted accounting principles and standards followed in Bangladesh. Template financial statements shall be co-developed with DWASA and appended to the PAM.

### D. Auditing

24. DWASA will cause the project financial statements, to be audited in accordance with the standards prescribed by the Office of the Comptroller and Auditor General of Bangladesh, by an independent auditor, whose qualifications, experience and terms of reference are acceptable to ADB. The audited financial statements, together with the auditors' report and management letter, will be submitted in the English language to ADB within 6 months of the end of the fiscal year by DWASA. The project audit report will include a separate opinion on (i) the use of the loan proceeds for the intended purpose of the project, (ii) the use of the imprest accounts and the SOE procedures, and (iii) the compliance with all financial covenants of the Loan Agreement. The opinion will be formulated for each source of funds (ADB, AFD, and EIB). ADB retains the right to: (i) review and examine any account, and (ii) verify the validity of the certification issued by the executing agency for each withdrawal application. Consolidated project financial statements shall be prepared for the entire project including activities financed by ADB, AFD, and EIB. The Auditor shall be requested to provide a management letter. The audited project financial statements will be disclosed on ADB's website in accordance with ADB's Public Communications Policy (2011). The government and DWASA have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited financial statements. ADB reserves the right to verify the project's financial statements to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures. Further, any critical audit observations on the project should be reported to ADB, and action taken should also be monitored. ADB also requires submission of audited financial statements (AFS) for DWASA.

## VI. PROCUREMENT AND CONSULTING SERVICES

### A. Advance Contracting and Retroactive Financing

25. All advance contracting and retroactive financing will be undertaken in conformity with ADB's *Procurement Guidelines* (March 2013, as amended from time to time) (ADB's *Procurement Guidelines*)<sup>11</sup> and ADB's *Guidelines on the Use of Consultants* (March 2013, as amended from time to time) (ADB's *Guidelines on the Use of Consultants*).<sup>12</sup> The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB

<sup>11</sup> Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>

<sup>12</sup> Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>

approval. The government has requested for advance contracting and retroactive financing to expedite implementation of the project. The government and DWASA have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the Project.

26. **Advance contracting.** Advance contracting is for (i) recruitment of management, design, and supervision consultants for Gandharbpur WTP and related works; (ii) recruitment of management and supervision consultants for DNI (ICB 2.7); (iii) recruitment of NGO for Gandharbpur WTP and related works; (iv) recruitment of NGO for DNI; (v) tendering and bid evaluation for design-build contract on Gandharbpur WTP and related works (package 1); and (vi) tendering and bid evaluation of a DNI package and packages for associated goods (ICB 2.7).

27. **Retroactive financing.** Retroactive financing is approved in principle for the recruitment of consultants, NGOs, contractors, and the operation of PMU. Retroactive financing will be up to 20% of the ADB loan amount for eligible expenditures incurred prior to the effectiveness of the loan agreement but not earlier than 12 months prior to the signing of the loan agreement.

## **B. Procurement of Goods, Works and Consulting Services**

28. 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 any civil works contract estimated to cost \$1 million or higher, and any goods contract valued at \$500,000 or higher. National competitive bidding (NCB) procedures will be used for any civil works contract estimated to cost less than \$1 million and any goods contract estimated to cost less than \$500,000. Shopping will be used for procurement of works and goods worth less than \$100,000.

29. Before the start of any NCB procurement ADB and the government will review the public procurement laws of the government to ensure consistency with ADB's *Procurement Guidelines*.

30. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C.

31. All consultants, including nongovernment organizations (NGOs), will be recruited according to ADB's *Guidelines on the Use of Consultants*.<sup>13</sup> The terms of reference for all consulting services are detailed in Section D.

32. An estimated 1,932 person-months (376 international, 1,556 national) of consulting services will be required to (i) facilitate project management and implementation, (ii) carry out detailed design, design review, and construction supervision, and (iii) strengthen the institutional and operational capacity of the executing agency. 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

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<sup>13</sup> Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>

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. This is due to the scale of the project including resettlement impacts and complex nature of the assignment that will involve review of detailed design made by the design-build contractor (package 1) (for consultancy package) and assistance to large-scale resettlement and rehabilitation (for NGO).

33. Procurement capacity assessment of the executing agency indicates that it has adequate human and physical resources for procuring goods, works, and consulting services. Some key staff in the PMU has gained direct and adequate experience in carrying out procurement works by administering ADB-funded Dhaka Water Supply Sector Development Program. As they have less experience in engaging design-build contractor(s) for large-scale surface water supply system development, bid documents and bid evaluation for these contracts will be supported by experienced consultants using PPTA savings. In addition, training programs will be provided to PMU staff by ADB and the consultants.

#### **C. Procurement Plan**

34. The procurement plan (Appendix B) is prepared in accordance with OSFMD country specific templates.

#### **D. Consultant's Terms of Reference**

35. Outline terms of reference for consultants and NGOs are available in Appendix C.

### **VII. SAFEGUARDS**

36. The PMU will contain a Safeguard Implementation Unit (SIU) staffed with two officials - 1 Environmental Officer and 1 Social and Gender Officer - at assistant engineer level. The SIU will be assisted by relevant safeguard specialists in the Management and Supervision Consultant (MSC) teams to implement safeguards. This section outlines the key roles and responsibilities for implementing ADB and government safeguard requirements under the project.

37. **Environmental Safeguards.** Two draft Environmental Management Plans (EMPs) – one for DNI (ICB 2.7) and one for WTP related works - were prepared as part of the Initial Environmental Examinations (IEEs). The following are the roles and responsibilities to implement the EMPs during the detailed design and construction stages:

38. Project Management Unit. The Environmental Officer in the SIU, assisted by the environmental specialists on the MSC teams, will oversee implementation of environmental safeguards work under the project, including the following activities: (i) update draft IEEs/EMPs prepared during feasibility study based on detailed designs in accordance with *ADB's Safeguards Policy Statement (SPS, 2009)* and *Environmental Conservation Rules (ECR 1997)* and submit to ADB for review, final approval, and disclosure prior to commencement of works

(note: a single document will be finalized to fulfill ADB and government environmental impact assessment [EIA] requirements);<sup>14</sup> (ii) facilitate and confirm overall compliance with Government of Bangladesh rules (e.g., *ECR 1997*), oversee timely preparation and finalization of EIA by contractors, and obtaining all required clearances and environmental permits in timely manner prior to construction; (iii) monitor EMP implementation by the contractors during construction including all mitigation measures and environmental parameters (air and water quality, noise, etc) and taking corrective actions where necessary; (iv) address and record grievances through the Grievance Redress Mechanism in a timely manner, and taking quick corrective actions where necessary; and (v) review quarterly environmental monitoring reports submitted to DWASA by consultants and submitting semi-annual environmental monitoring reports to ADB. All semi-annual monitoring reports submitted to ADB will be disclosed on ADB's website, as per ADB safeguards and communication policies.

39. **Contractors:** Design build contractors play a critical role in implementing environmental safeguards including the following activities (i) prepare and finalize government EIA report, where necessary, based on existing draft IEE/EMP prepared during feasibility study to reflect detailed designs and fulfill ADB's *SPS 2009 and ECR 1997* (note: a single document will be finalized to fulfill ADB and government EIA requirements); (ii) carry out all environmental mitigation measures outlined in the EMP during construction including regular testing and monitoring of environmental parameters outlined in the EMP; and (iii) address public grievances by taking quick corrective actions and reporting status of grievances and redress to PMU.

40. The following arrangement will be made for environmental safeguards during project implementation

- a. Intake-raw water pipeline-WTP (package 1): Draft IEE will be updated/developed into EIA (including EMP) by design build contractor. Management, design, and supervision consultants will review the IEE/EIA and supervise the implementation of EMP.
- b. Treated water pipeline from WTP to US embassy (package 2): Draft IEE will be updated by management, design, and supervision consultants who will undertake the detailed design of this package. The consultants will also supervise the implementation of EMP.
- c. Treated water distribution reinforcements inside Dhaka city (package 3): same as above b.
- d. DNI (ICB 2.7): Draft IEE will be updated by management and supervision consultants engaged for ICB 2.7, based on the detailed design prepared by ICB 2.7 DB contractor. The consultants will also supervise the implementation of EMP.

41. It is expected that a separate updated EMP for each package (1 from DB, and 2 from MDSC) will be prepared for their respective works, which DWASA and ADB will approve separately (not as a single document). In the end, once all are updated, DWASA and ADB will combine these three EMPs into one single document called 'final IEE' and disclose.

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<sup>14</sup> For ICB 2.7 works, the MSC environmental specialists will be responsible for updating the draft IEE based on detailed designs of the design build contractor, and submit to ADB for approval. For the WTP and associated pipeline works, environmental specialists on the design build operate contractor team will update the draft IEE in the process of preparing the government EIA based on detailed designs, and the MSC will then review the documents and submit to ADB. Note: a single document will be finalized to fulfill ADB and government EIA requirements under the project. For ADB purposes, the document is called an IEE, and for government purposes, it is called an EIA.

42. **Social Safeguards (Involuntary Resettlement).**<sup>15</sup> The project will have significant resettlement impacts and Category A for involuntary resettlement. A draft Resettlement Plan (RP) for output 1 was prepared in accordance with ADB's *Safeguards Policy Statement (SPS, 2009)* and the government's *Acquisition and Requisition of Immovable Property Ordinance 1982 (AR/PO)*. Another draft RP was prepared for output 2 (distribution network improvement). Resettlement impacts of this component will be limited to temporary impacts on road side vendors and hawkers during construction. All costs related to land acquisition and resettlement/rehabilitation will be borne by the Government. The PMU is to ensure that any physically or economically displaced persons (DPs) are compensated at full replacement cost prior to displacement (i.e., commencement of civil works) for project components or sections ready for construction, and ensure other entitlements listed in the RP are provided to displaced persons. A resettlement framework was prepared for distribution reinforcements (under output 1) as the exact location of the work has not been fixed. A resettlement plan will be prepared during detailed design of this contract package.

43. Qualified NGOs will be engaged to facilitate RPs' finalization, implementation, and livelihood income and restoration program to the affected households. As required by ADB SPS for project with category A on involuntary resettlement, an external monitoring agency will be appointed to monitor and evaluate the RP implementation of the project. The following are institutional roles and responsibilities to ensure RPs are effectively implemented following the completion of detail design and prior to construction stages.

44. Project Management Unit. The Social and Gender Officer in the SIU, assisted by the resettlement specialists on the MSC teams, will oversee implementation of involuntary resettlement safeguards work under the project, with support of qualified NGOs to implement the RPs. The SIU will oversee the following activities: (i) update RPs in accordance with ADB's *Safeguards Policy Statement (SPS, 2009)* based on detailed designs and submitting to ADB for review, final approval, and disclosure prior to commencement of works; (ii) monitor RP implementation and rehabilitation of displaced persons prior to and during construction; (iii) conduct internal and external monitoring of the resettlement process to ensure smooth implementation; (iv) monitor work of NGO<sup>16</sup>; (v) ensure timely payments of compensation and other entitlements as per the RP are made before displacement occurs; (vi) consolidate quarterly resettlement monitoring reports prepared by NGOs into semi-annual monitoring reports to be submitted to ADB; (vii) address and record grievances through the Grievance Redress Mechanism in a timely manner, and taking quick corrective actions where necessary to facilitate the redressal of grievances in coordination with contractors, NGO, and displaced persons; (viii) engage in ongoing meaningful consultations with stakeholders and affected persons; and (ix) recruit independent external monitoring agency with endorsement from ADB. The TORs of NGO to facilitate RP implementation and External Monitoring Agency are in the Appendix C. Appendixes D, E and F provide samples of draft project leaflet, grievance redress form and semiannual safeguards monitoring template.

45. Contractors: The Government will ensure that contractors comply with all applicable labor laws and core labor standards on (a) prohibition of child labor as defined in national legislation for construction and maintenance activities, (b) equal pay for women and men for work of equal value, and (c) elimination of forced labor, and (d) the requirement to disseminate

<sup>15</sup> The project will have no impacts on indigenous peoples and so ADB's Indigenous People's requirements are not applicable.

<sup>16</sup> NGOs will be engaged to implement the RPs including carrying out surveys of affected persons based on detailed designs, ensuring all APs are compensated and relocated prior to construction in relevant sections, leading the ongoing consultation and rehabilitation process.

information on sexually transmitted diseases including HIV/AIDS to employees and local communities surrounding the Project sites. In addition, the contractor shall make best efforts to provide displaced persons construction related jobs or other employment during implementation depending on the skill sets.

46. The following arrangement will be made for social safeguards during project implementation:

- a. Intake-raw water pipeline-WTP (package 1): Draft RP will be updated/finalized by an NGO (NGO #1) without waiting for detailed design by DB contractor. The area (including pipeline alignment) is being fixed by the topographic survey firm under PPTA. Implementation of RP will be assisted by the same NGO.
- b. Treated water pipeline from WTP to US embassy (package 2): same as above a. (NGO #1)
- c. Treated water distribution reinforcements inside Dhaka city (package 3): only RF exists. RP will be prepared by management, design, and supervision consultants who will undertake the detailed design of this package. Implementation of RP will be assisted by another NGO (NGO #2).
- d. DNI (ICB 2.7): Draft RP will be updated by management and supervision consultants engaged for ICB 2.7, based on the detailed design prepared by ICB 2.7 DB contractor. Implementation of RP will be assisted by another NGO (NGO #3).

### VIII. GENDER AND SOCIAL DIMENSIONS

47. **Gender.** A gender action plan (GAP), which details the gender aspects of the project, will be implemented. The project will improve water supply access of LICs through 500 household or community water supply points in zone 6 where the DNI is implemented. This will reduce the time and cost burden of woman in collection of water for the family and managing household health. Households in LICs may take individual connections, where possible or form into community based organization (CBO) to share and manage a water supply point. Women's participation in design and maintenance of water points will be ensured through 50% women membership in CBOs and in the leadership. Women will have equal opportunity to participate in training programs to be supported under the project. Efforts to ensure 20% employment opportunities for unskilled labor in construction will be in place. Community awareness raising and training activities both at the intake site and service areas will include women and will focus on economic use of water, water quality, cost sharing, and operation and maintenance of water points. The GAP will be implemented and monitored by the PMU with support of a gender and social development consultant in the management and supervision consultants and NGOs. Sex disaggregated database will be developed and progress of GAP implementation will be reported to ADB through Quarterly Progress Reports (QPR). The evaluation of GAP implementation will be carried out as part of any benefit monitoring, including at project completion.

48. **Social Development and Participation.** The Summary Poverty Reduction and Social Strategy (SPRSS) details the social aspects of the project. Improved water supply service is a priority for general citizens in Dhaka, as the current level of service is not adequate. Low income households pay high cost and get intermittent supply with poor water quality. The project will focus on the augmentation of surface water supply system and also strengthen the distribution network. The LICs will participate in consultation, planning for resettlement work, site selection of community water points, construction and maintenance work, training, and bill collection. NGOs will be engaged in implementation of the awareness raising and community

mobilization activities in LICs. Besides water issues, awareness raising activities will include the types of employment opportunities available; timeframes; and the modality of applying for the work. In the intake area, deep tube wells, free from arsenic, will be provided to communities. At the same time, awareness will be raised on water source pollution control and, if found necessary, support will be provided for low cost sanitation.

### Gender Action Plan: Dhaka Environmentally Sustainable Water Supply Project

Activities	Indicators and targets	Responsibility	Time
<b>Output 1: New surface water supply system developed</b>			
<p><b>Women's benefits from resettlement and construction from Outputs 1 and 2</b></p> <p>1.1 Inform project affected women and men about the proposed intervention and construction work.</p> <p>1.2 Ensure payment of equal compensation to households headed by women according to resettlement plan.</p> <p>1.3 Carry out motivational session/meeting/gathering for information on the types of employment available; timeframes and wage rate; the modality of applying for the work where women will get preference. Ensure that consultation sessions are held in the affected areas regarding construction work, land acquisition, and resettlement.</p> <p>1.4 Include specific clauses in the bidding documents on core labor standards (equal pay for work of equal value, occupational health and safety, water supply, sanitation, segregated shelter and facilities) and monitor their implementation.</p> <p>1.5 Employ women as unskilled and semi-skilled laborers in earth work, construction and maintenance work and enforce the labor standards Orient all PMU/field level staff on gender aspects of resettlement and core labor standards and their roles in monitoring and reporting.</p> <p>1.6 Brief all contractors on specific gender-related requirements of core labor standards, monitoring progress reporting of periodic progress.</p> <p>1.7 Ensure water quality and prevent pollution in the intake area.</p>	<ul style="list-style-type: none"> <li>• Consultations during design and implementation organized in each community with at least 40% women participants that include landowners, heads of households, and other affected women</li> <li>• 100% affected female headed households are aware of entitlements and compensation</li> <li>• Special assistance for disadvantaged/vulnerable women APs provided as per resettlement plan</li> <li>• At least 20% of unskilled labourers are local destitute women, who receive equal pay with men for work of equal value</li> <li>• Water and sanitation facilities and occupational health and safety measures for women workers at all construction sites available</li> <li>• All job advertisements for civil works and for utility agency include sentence on "Applications by women are encouraged."</li> <li>• All PMU/field level staff are aware of gender aspects of resettlement and core labor standards and monitor implementation</li> <li>• All contractors informed of gender-related applications of core labor standards and include implementation in progress reports.</li> <li>• 80% (300 households) of people living around the intake area have access to safe water supply</li> <li>• CBOs on water quality maintenance near the intake area organized and oriented</li> <li>• Low cost sanitation, if necessary, near the intake area supported</li> </ul>	<p>DWASA Contractors NGOs</p>	<p>Years 1-2</p>
<b>Output 2: Distribution Network Strengthened</b>			



Activities	Indicators and targets	Responsibility	Time
2.1 Arrange community consultation in targeted service areas on incremental water services/transfer, construction, O&M of water supply schemes, connection fees, tariffs and other charges. 2.2 Undertake awareness programs on water conservation, water quality and hygiene education through workshops, focus group discussions, community consultation and dissemination of posters, leaflets. 2.3 Rehabilitate household connections including installation of new meters. 2.4 Install communal/household water connections to be managed by the CBOs in LICs. 2.5 Establish or strengthen CBOs or committees for the management, O&M of water supply services in LIC. 2.6 Conduct training on the management and O&M of community water supply.	<ul style="list-style-type: none"> <li>• Women represent 50% participants in community consultations in target areas on design and implementation, water services connection fees etc</li> <li>• One awareness campaign designed and launched.</li> <li>• Women benefit from 32,000 household and community connections to be rehabilitated</li> <li>• Women benefit from 6,000 new or legalized household connections installed, including 500 connections in LICs (benefitting an estimated 10,000 women in LICs)</li> <li>• CBOs formed/strengthened in LICs with 50% women members and 50% women in leadership positions in all CBOs</li> <li>• Women users of community connections receive training on O&amp;M of community water supply management</li> </ul>	DWASA and Implementing NGOs	Year 1-5
<b>Output 3: Project Management and Administration Adequately Supported</b>			
3.1 Assess training needs (organizational diagnostics) and train relevant staff including the Community Programme and Consumer Relation Division of DWASA on gender mainstreaming and financial management. 3.2 Improve capacity of the Community Programme and Consumer Relation Division of DWASA. 3.3 Conduct training for relevant staff of partner NGOs and contractors on the gender action plan and their roles. 3.4 Partner NGOs specify targets for staffing. 3.5 Develop a project performance management system with social and gender indicators. 3.6 Gather baseline sex-disaggregated data and gender analytical information as part of all surveys, periodic assessments and reports.	<ul style="list-style-type: none"> <li>• All staff members of the project, including the Community Programme and Consumer Relation Division and NGOs, receive training on gender mainstreaming (target: 150 staff) and all training materials integrate gender aspects</li> <li>• 30% of a total of 100 participants in capacity development programs on financial management are women</li> <li>• Women with equal qualifications with men, prioritized in PMU positions (at least 30% women in the PMU)</li> <li>• All staff of Community Programme and Consumer Relation Division oriented on participatory methodology and monitoring of community level operation</li> <li>• NGO field staff teams have at least 1 woman member in each 3-person team, with gender related actions and targets identified and implemented</li> <li>• Sex-disaggregated project data collected and analyzed regularly</li> <li>• Quarterly progress reports include status of GAP implementation</li> </ul>	PMU of DWASA Community Programme and Consumer Relation Division NGO	Year 1 onwards

AP = affected people, CBO = Community Based Organization, DWASA = Dhaka Water Supply and Sewerage Authority, GAP = Gender Action Plan, LIC= low income community, NGO= nongovernment organization; O&M = operation and maintenance, PMU= project management unit

## IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

### A. Project Design and Monitoring Framework

49. The design and monitoring framework (DMF) of the project is in Appendix A.

### B. Monitoring

50. **Project performance monitoring:** Within 12 months of loan effectiveness, the PMU will establish a project performance management system (PPMS) using the targets, indicators, assumptions, and risks in the DMF. The PPMS will take into account the important monitoring parameters in addition to those included in the DMF. The baseline data corresponding to indicators and targets set out in the DMF and PPMS will be gathered during detailed design stage, within 6 months of commencement of design work, disaggregated by income levels and sex. Disaggregated baseline data for output and outcome indicators gathered will be updated and reported quarterly through the quarterly progress reports and after each ADB review mission. These quarterly reports will provide information necessary to update ADB's project performance reporting system.<sup>17</sup> Results of a comprehensive completion survey will be included in the project completion report.

51. **Compliance monitoring:** PMU will monitor the compliance of loan covenants—policy, legal, financial, economic, environmental, and others and ensure the compliance. All non-compliance issues, if any, will be updated in quarterly progress reports together with remedial actions. Each ADB review mission (at least 2 times a year) will also monitor the status of compliance with loan assurances and raises the non-compliance issues with the government and agrees on remedial actions.

52. **Safeguards monitoring:** The PMU will submit separate semiannual environmental and resettlement monitoring reports to ADB, which will be disclosed on ADB's website. The monitoring reports will be prepared by the MSC safeguards specialists, with inputs from the contractors and NGOs, where relevant. The status of safeguard implementation, issues, and corrective actions are to be clearly reported to ADB. The status of safeguards implementation will also be discussed at each ADB review mission and with necessary issues and agreed actions recorded in Aide Memoires. As required by ADB SPS (2009) for projects with significant involuntary resettlement impacts, DWASA through PMU will engage an external monitoring agency (EMA) to verify project monitoring reports on RP implementation and livelihood rehabilitation program, provide advice for any safeguards compliance issue, and prepare corrective action plan to address any significant issues identified to ensure project's compliance with ADB SPS (2009) on involuntary resettlement. The monitoring will be conducted semiannually and the reports from EMA will be submitted to ADB for review and disclosure.

53. **Gender and social dimensions monitoring:** The progress of GAP implementation will be reviewed at each review mission and incorporated in the quarterly and other progress reports as well as evaluation reports and sent to ADB. Sex-disaggregated data will regularly be updated.<sup>18</sup>

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<sup>17</sup> ADB's project performance reporting system is available at:

<http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>

<sup>18</sup> ADB's *Handbook on Social Analysis: A Working Document*, is available at: <http://www.adb.org/Documents/Handbooks/social-analysis/default.asp>, *Staff Guide to Consultation and*

54. Status of the implementation of the IEE/EMP and RP will be discussed at each ADB review mission and integrated into semi-annual reports for IEE/EMP and RP implementation. These will be prepared by PIUs with assistance from EPCM safeguard specialists and sent to the PMU and forwarded to ADB.

### **C. Evaluation**

55. The government and ADB will jointly review the project at least twice a year. This includes (i) the performance of the PMU, PCU, consultants, contractors, and NGOs; (ii) physical progress of the project, effectiveness of safeguards, and implementation of the GAP; (iii) compliance with loan assurances; and (iv) assessment of operational sustainability in technical and financial terms, including tariff adjustments. In addition to the regular loan reviews, the government and ADB will undertake a comprehensive midterm review in the third year of project implementation to identify problems and constraints encountered and suggest measures to address them. Specific items to be reviewed will include (i) appropriateness of scope, design, implementation arrangements, and schedule of activities; (ii) assessment of implementation progress against project indicators; (iii) capacity development of relevant sections of DWASA for ensuring sustainability; (iv) compliance with safeguard measures; (v) extent to which the GAP is being implemented; (vi) lessons learned, good practices, and corrective actions; and (vii) changes recommended. Co-financiers will be invited to review missions. Within 6 months of physical completion of the project, the PMU will submit a project completion report to ADB.<sup>19</sup>

### **D. Reporting**

56. The DWASA will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions; (c) updated procurement plan every 12 months covering the following 18 months; and (iii) a project completion report within 6 months of physical completion of the Project. To ensure projects continue to be both viable and sustainable, project accounts and the executing agency AFSs, together with the associated auditor's report, should be adequately reviewed.

### **E. Stakeholder Communication Strategy**

57. The stakeholder communication strategy will include different methodologies. The basic information of the project will be uploaded in the websites of ADB and DWASA. All procurement notices will also be uploaded in the websites. Progress will be reported to the Inter-ministerial Steering Committee and guidance will be sought. The Local Government Division, Implementation Monitoring and Evaluation Division, and other relevant ministries will receive periodic reports to review progress. The project affected persons including women will be informed by the NGOs about the proposed project intervention, necessary resettlement, as well as compensation and grievance redress mechanism through motivational sessions, meetings, and other forums in the project areas. The NGOs will also inform about construction work, available employment, timeframes, wage rate, and the opportunities for women. Contractors will be briefed about the specific clauses on core labor standards (equal pay for work of equal value,

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*Participation:* <http://www.adb.org/participation/toolkit-staff-guide.asp>, and, *CSO Sourcebook: A Staff Guide to Cooperation with Civil Society Organizations:* <http://www.adb.org/Documents/Books/CSO-Staff-Guide/default.asp>

<sup>19</sup> Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

occupational health and safety, water supply, sanitation, segregated shelter and facilities). Consultations and awareness raising programs will be organized in each community focusing on economic use of water, water quality, cost sharing, operation and maintenance of water points ensuring 50% of women representation. Leaflets, flyers and other printed and electronic media will be used to disseminate information from time to time. The project review missions will also be used for communication with different stakeholders including project beneficiaries and for receiving feedback.

## **X. ANTICORRUPTION POLICY**

58. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the Project.<sup>20</sup> All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all Project contractors, suppliers, consultants and other service providers. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the Project.<sup>21</sup>

59. To support these efforts, relevant provisions are included in the loan agreement, project agreement and the bidding documents for the Project. In particular, all contracts financed by ADB in connection with the project will include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all contractors, suppliers, consultants, and other service providers as they relate to the project. ADB will disseminate ADB's anticorruption policy to MLGRDC and DWASA.

60. The Anti-Corruption Commission (ACC), as the constitutional anticorruption agency, has powers to investigate any irregularities in the Project. This includes financial irregularities, as well as corruption of government officials and officers and employees of autonomous bodies.

61. Project-specific measures to enhance governance and prevent corruption, designed with the stages of project implementation and the disbursement chain in mind, include (i) the requirement for PMU to follow government rules and procedures for all expenses and revenue items including cash and the proper and accurate maintenance of financial records; and (ii) establishing a project website at DWASA to provide transparency on project details including procurement. DWASA will announce the Project and business opportunities associated with the Project, as relevant, on their website. Such announcements, when dealing with contracts awarded, will at least disclose: (a) the list of participating bidders, (b) the name of the winning bidder, (c) the amount of the contracts awarded, and (d) the services procured. In addition, DWASA will establish a system of handling complaints, acceptable to ADB, to deal with any complaints received in relation to the contracts, their awards and their administration.

62. For civil works, the major risks are of collusion to overprice designs and approve low volume and quality built works. PMU will hire technical auditors to carry technical audit of the project on random basis. The technical auditor will share the report with MLGRDC and ADB on confidential basis. Contractors will be made to disclose basic information of contracts in each construction site through display board. Full information disclosure and participatory monitoring are expected to be effective in reducing the risk of corruption and improving governance at central and local levels.

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<sup>20</sup> Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

<sup>21</sup> ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>

63. Within 6 months of project effectiveness, the government will prepare a grievance redress mechanism (GRM), acceptable to ADB, and establish a special committee to receive and resolve complaints/grievances or act upon reports from stakeholders on misuse of funds and other irregularities relating to the project, including but not limited to grievances due to safeguard issues. The special committee will: (i) be independent of and has no conflict of interest with DWASA; (ii) make public of the existence of the GRM; (iii) review and address grievances of stakeholders of the project, in relation to either the project, any of the service providers, or any person responsible for carrying out any aspect of the project; and (iv) proactively and constructively responding to them.

64. The EIB Covenant of Integrity will be inserted in the bidding documents and contract for the package 1 which EIB co-finances.

## **XI. ACCOUNTABILITY MECHANISM**

65. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.<sup>22</sup>

## **XII. RECORD OF PAM CHANGES**

66. Draft PAM was discussed during the loan fact-finding mission in June 2013.

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<sup>22</sup> For further information see: <http://www.adb.org/Accountability-Mechanism/default.asp>.

**List of Appendices**

Appendix A: Design and Monitoring Framework

Appendix B: Procurement Plan

Appendix C: Draft terms of reference:

C-1: Management, Design, and Supervision Consultants for Gandharbpur WTP and related works

C-2: Management and Supervision Consultants for DNI package (ICB 2.7)

C-3: NGO for assisting resettlement plan implementation for intake, raw water pipeline, Gandharbpur WTP, and treated water pipeline up to the injection point

C-4: NGO for assisting resettlement plan implementation for distribution reinforcements

C-5: NGO for assisting resettlement plan implementation, awareness raising, and supporting improved access to low income communities for DNI package (ICB 2.7)

C-6: External monitoring agency for RP implementation

Appendix D: Sample project leaflet for social safeguards

Appendix E: Grievance Redress Form

Appendix F: Semiannual Safeguard Monitoring template

### APPENDIX A: DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p><b>Impact</b> Improved access to and quality of sustainable water supply services in Dhaka</p>	<p>By 2021: Access increased to 95% in 400 km<sup>2</sup> of DWASA service areas (baseline: 90% access in 2012)</p> <p>Groundwater table drawdown is reduced to 1–2 meters a year (baseline: 2–3 meters drawdown a year in 2012)</p> <p>Diarrheal diseases are reduced to 3.6% (baseline: 4.0%<sup>a</sup> of children in Dhaka division)</p>	<p>DWASA annual reports</p> <p>DWASA annual reports</p> <p>Bangladesh Demographic and Health Survey</p>	<p><b>Assumptions</b> Other investment projects on water supply, including chlorination system improvements, are implemented on time.</p> <p>Abstraction of groundwater is reduced with the increase in surface water supply.</p> <p>Overhead tanks of buildings are maintained properly.</p> <p>Hygiene practices are improved.</p> <p><b>Risk</b> Network expansion does not keep pace with the population increase</p>
<p><b>Outcome</b> More reliable and improved security of water supply in Dhaka</p>	<p>By 2019 in zones 4, 5, 6, 8, 9, and 10: continuous water supply (baseline: 14–15 hours per day in zones 4 and 10, and 22.5 hours per day in zones 5, 6, 8, and 9)</p> <p>Water supply pressure of at least 1 bar at consumer end (baseline: 0.2–0.3 bars in 2012)</p> <p>Dependence on groundwater reduced to 30% (baseline: 100% in 2012 except zone 6)</p> <p>98% of water quality test results within DWASA distribution systems meet country standards (baseline: 90% in 2011)</p>	<p>DWASA surveys</p> <p>DWASA surveys</p> <p>DWASA surveys</p> <p>Joint surveys of DWASA and Department of Environment</p>	<p><b>Assumptions</b> NRW is reduced to less than 20% in concerned service areas, as planned by DWASA.</p> <p>River water quality at the intake is maintained.</p> <p><b>Risk</b> Tariff level not raised to cover full O&amp;M costs and debt recovery.</p>
<p><b>Outputs</b> 1. New surface water supply system developed</p>	<p>By 2019: Water intake with capacity of 2,000 MLD constructed</p> <p>21.5 km of raw water transmission pipeline laid</p>	<p>For all indicators: DWASA surveys</p>	<p><b>Assumptions</b> Timely availability of cofinancing from AFD and EIB</p> <p>Timely acquisition of required land</p>

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
	<p>WTP with production capacity of 500 MLD constructed</p> <p>34 km of treated water transmission mains installed<sup>b</sup></p>		<p><b>Risks</b></p> <p>Increasing political instability hampering project activities</p> <p>Sharp price increases of construction materials</p>
2. Distribution network strengthened	<p>By 2019 in zone 6: Rehabilitation of 376 km of water distribution network</p> <p>32,000 household and community connections rehabilitated, including replacement of meters</p> <p>NRW reduced to 15% or less in 16 district metered areas from the current level estimated at about 35% in 2013</p> <p>6,000 new or legalized household and community connections installed, including 500 connections in low-income communities (target: 10,000 women in low-income communities)</p> <p>Public awareness on water use and conservation raised in all 16 district metered areas</p>	For all indicators: DWASA surveys	<p><b>Assumption</b></p> <p>Timely issuance of permits by local governments</p>
3. Project management and administration adequately supported	<p>PMU established and fully staffed on time, with at least 30% women, by the end of 2013</p> <p>Special management unit of the new surface water system established by 2018</p> <p>Project is implemented on time and within budget</p> <p>Capacity development programs on financial management and gender mainstreaming implemented by 2019 (target: 100 staff for financial management with 30% women; 150 staff for gender mainstreaming)</p> <p>Project performance management system, with</p>	For all indicators: DWASA surveys	



Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
	social and gender indicators and sex-disaggregated data, integrated with existing DWASA management information system by 2014		
<p><b>Activities with Milestones</b></p> <p><b>1. New surface water supply system developed</b></p> <p>1.1 Mobilize design–build contractor by Q1 2015</p> <p>1.2 Conduct detailed design for treated water pipelines by Q2 2015</p> <p>1.3 Complete construction works by 2018</p> <p>1.4 Commence operation of the WTP at Gandharbpur by end of 2018</p> <p><b>2. Distribution network strengthened</b></p> <p>2.1 Mobilize design–build contractor by Q3 2014</p> <p>2.2 Complete construction works by Q3 2017</p> <p>2.3 Prepare bid documents for two future packages by 2017</p> <p><b>3. Project management and administration adequately supported</b></p> <p>3.1 DWASA provides PMU with office space and initiates staff recruitment, including project director (May 2013)</p> <p>3.2 Issue bid documents for distribution network improvement (July 2013)</p> <p>3.3 Issue bid documents for Gandharbpur WTP design–build contract by Q2 2014</p> <p>3.4 Recruit all consultants and NGOs by Q3 2014</p> <p>3.5 Engage all contractors by Q2 2016</p> <p>3.6 Develop modules of capacity development programs and implement them (continuous from 2014 until 2019)</p> <p>3.7 Undertake regular surveys and issue quarterly and semiannual monitoring reports and audit reports on time (continuous from 2014 until 2019)</p>			<p><b>Inputs</b></p> <p><b>Loans</b></p> <p><b>ADB: \$250 million</b></p> <p><b>AFD: \$100 million</b></p> <p><b>EIB: \$100 million</b></p> <p><b>Government: \$224.9 million</b></p>

AFD = *Agence Francaise de Developpement*, DMA = district metered area, DWASA = Dhaka Water Supply and Sewerage Authority, EIB = European Investment Bank, MIS = management information system, MLD = million liters per day, NGO = nongovernment organization, NRW = non-revenue water, PMU = project management unit, WTP = water treatment plant.

<sup>a</sup> Percentage of children under age five who had diarrhea in the two weeks preceding the survey.

<sup>b</sup> 13.0 km from the WTP to the injection point and 21.0 km of distribution reinforcements in the existing network.

Source: Asian Development Bank.

## APPENDIX B: PROCUREMENT PLAN

### Basic Data

<b>Project Name:</b> Dhaka Environmentally Sustainable Water Supply Project	
<b>Country:</b> Bangladesh	<b>Executing Agency:</b> Dhaka Water Supply and Sewerage Authority
<b>Loan Amount:</b> \$250 million (ADB), \$100 million (AFD), \$100 million (EIB)	<b>Loan (Grant) Number:</b>
<b>Date of First Procurement Plan:</b> 4 September 2013	<b>Date of this Procurement Plan:</b> 4 September 2013

### A. Process Thresholds, Review and 18-Month Procurement Plan

#### 1. Project Procurement Thresholds

1. Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works	
Method	Threshold
International Competitive Bidding (ICB) for Works	\$1,000,000 and above
International Competitive Bidding for Goods	\$500,000 and above
National Competitive Bidding (NCB) for Works	Beneath that stated for ICB, Works
National Competitive Bidding for Goods	Beneath that stated for ICB, Goods
Shopping for Works	Below \$100,000
Shopping for Goods	Below \$100,000

#### 2. ADB Prior or Post Review

2. Except as ADB may otherwise agree, the following prior or post review requirements apply to the various procurement and consultant recruitment methods used for the project.

Procurement Method	Prior or Post	Comments
<b>Procurement of Goods and Works</b>		
ICB Works	Prior	
ICB Goods	Prior	
NCB Works	Post	First package subject to prior review
NCB Goods	Post	First package subject to prior review
Shopping for Works	Post	
Shopping for Goods	Post	
<b>Recruitment of Consulting Firms</b>		
Quality- and Cost-Based Selection (QCBS)	Prior	
Quality-Based Selection (QBS)	Prior	
Other selection methods: Consultants Qualifications Selection (CQS), Least-Cost Selection (LCS), Fixed Budget Selection (FBS), and Single Source Selection (SSS)	Prior	
<b>Recruitment of Individual Consultants</b>		
Individual Consultants	Prior	

#### 3. Goods and Works Contracts Estimated to Cost More Than \$1 Million

3. The following table lists goods and works contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

General Description	Contract Value	Procurement Method	Prequalification of Bidders (y/n)	Advertisement Date (quarter/year)	Comments
Design-build contract for intake, pipeline, and WTP	\$216million*	ICB	N	2Q/2014	Two-stage bidding
DNI works for zone 6 (ICB 2.7)	\$41 million	ICB	N	3Q/2013	
Procurement of goods for ICB 2.7	\$6.4 million	ICB	N	4Q/2013	Total of 6 packages (\$0.3 million to \$2.7 million)

DNI = distribution network improvement.

\* Contract value with \* does not include contingencies, taxes and duties.

#### 4. Consulting Services Contracts Estimated to Cost More Than \$100,000

4. The following table lists consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

General Description	Contract Value	Recruitment Method	Advertisement Date (quarter/year)	International or National Assignment	Comments
Management, design, and supervision (intake, pipeline, and WTP)	\$17.7 million	QCBS (90:10)	3Q/2013	International	
Management and supervision for DNI	\$2.3 million	QCBS (80:20)	3Q/2013	International	
NGO for intake, pipeline, and WTP	\$1.0 million	QCBS (90:10)	3Q/2013	National	
NGO for DNI	\$0.2 million	QCBS (80:20)	3Q/2013	National	

DNI = distribution network improvement, NGO = nongovernment organization, WTP = water treatment plant.

#### 5. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000

5. The following table groups smaller-value goods, works and consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

General Description	Value of Contracts (cumulative)	Number of Contracts	Procurement / Recruitment Method <sup>1</sup>	Comments
PMU Vehicles	\$0.6 million	3	NCB	
PMU office equipment	\$0.06 million	3	Shopping	
Soils and geotechnical survey	\$0.06 million	1	Shopping	
External monitoring of RP implementation	\$0.05million	1	CQS	

RP = resettlement plan.

## B. Indicative List of Packages Required Under the Project

6. The following table provides an indicative list of all procurement (goods, works and consulting services) over the life of the project. Contracts financed by the Borrower and others should also be indicated, with an appropriate notation in the comments section.

General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Domestic Preference Applicable	Comments
Design-build contract	\$216 million*	1	ICB	No	Two-stage
Treated water pipelines	\$112 million*	2	ICB	Yes	
DNI works (zone 6)	\$41 million	1	ICB	Yes	
DNI goods (zone 6)	\$6.4 million	6	ICB	No	
Installation of one deep tubewell and distribution line near intake	\$0.39 million	1	NCB	No	
PMU vehicles	\$0.6 million	3	NCB	No	
PMU office equipment and others	\$0.12 million	4	Shopping	No	

General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Type of Proposal	Comments
Management, design, and supervision consultants	\$20 million	2	QCBS/international	Full	
NGOs for assisting implementation of RP	\$1.4 million	3	QCBS/national	Simplified	
External monitoring	\$0.05 million	1	CQS/national	Simplified	Monitoring RP implementation

DNI = distribution network improvement, RP = resettlement plan.

\* Contract value with \* does not include contingencies, taxes and duties.

## **C. National Competitive Bidding**

### **1. General**

7. The procedures to be followed for national competitive bidding shall be those set forth for the National Open Tendering Method in the Government's *Public Procurement Rules, 2008* (as updated and issued pursuant to the Bangladesh *Public Procurement Act, 2006*) with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the Procurement Guidelines.

### **2. Advertising**

8. Bidding of NCB contracts estimated at \$500,000 or more for goods and related services or \$1,000,000 or more for civil works shall be advertised on ADB's website via the posting of the Procurement Plan.

### **3. Anti-Corruption**

9. Definitions of corrupt, fraudulent, collusive and coercive practices shall reflect the latest ADB Board-approved Anti-Corruption Policy definitions of these terms and related additional provisions (such as conflict of interest, etc.).

### **4. Location of Bid Submission**

10. Submission of bids to 'primary' and 'secondary' locations, or 'multiple droppings' of bids, shall not be required or allowed. Advertisements and bidding documents shall specify only one location for delivery of bids.

### **5. Rejection of All Bids and Rebidding**

11. Bids shall not be rejected and new bids solicited without ADB's prior concurrence.

### **6. Member Country Restrictions**

12. Bidders must be nationals of member countries of ADB, and offered goods must be produced in member countries of ADB.

### **7. Lottery**

13. A lottery system shall not be used to determine a successful bidder, including for the purpose of resolving deadlocks.

### **8. Qualification Requirements**

14. A successful bidder must be determined by an assessment process that shall include the application of qualification requirements to all bids.

### **9. Rejection of Bids**

15. A bid shall not be rejected on the grounds that its bid price is not within a percentage range above or below the contract estimate.

## APPENDIX C: DRAFT TERMS OF REFERENCE

### APPENDIX C-I. Management, Design, and Supervision Consultants for Gandharbpur WTP and related works

#### A. Project Description

1. The Dhaka Environmentally Sustainable Water Supply project will provide more reliable and sustainable water supply in Dhaka by developing a new surface water source to replace the failing groundwater supply. A 2,000 MLD intake on the Meghna river at Bisnondi will be constructed with pumps for 525 MLD and 500MLD surface water treatment plant (WTP) at Gandharbpur, with some 35 km of ~2m dia. raw and treated water transmission pipelines from the intake to the WTP and onward to Dhaka where 20-30 km of additional distribution pipe reinforcement over 1m dia. will be installed. Dhaka Water Supply and Sewerage Authority (DWASA, the Client) is the implementing agency of the project.

2. This assignment is for:

- design review and supervision of construction for a D&B contract comprising water intake, raw water pipeline, and WTP (package 1),
- detailed design of two pipeline packages (package 2 and 3),
- supervision of construction of the two pipeline packages (package 2 and 3), and
- support for overall project management and implementation including support to PMU for smooth project implementation

3. Details of the packaging is given in the table below:

**Project Contract Packaging**

Package	Contract Type	Description	Estimated Value (USD) <sup>a</sup>
1	Design and Build	<ul style="list-style-type: none"> <li>• 2000 MLD river intake and sedimentation structure and 500MLD pump station</li> <li>• River training works</li> <li>• 22km, ~2.2m diameter raw pipeline to Gandharbpur WTP (31m corridor) + access road through fields and 250m river crossings</li> <li>• 500MLD water treatment plant and forwarding pumping station.</li> </ul>	140 – 170 million (capex)
2	Employer detailed design	<ul style="list-style-type: none"> <li>• Treated water pipeline (through fields), with river crossings               <ul style="list-style-type: none"> <li>○ ~2.2m diameter, 14 km treated water pipeline from Gandharbpur WTP to Dhaka city injection point</li> <li>○ 650m of river crossings</li> </ul> </li> </ul>	60 - 80 million (capex)
3	Employer detailed design	<ul style="list-style-type: none"> <li>• Treated water distribution pipeline (within Dhaka urban)</li> </ul>	40 - 60 million (capex)

Package	Contract Type	Description	Estimated Value (USD) <sup>a</sup>
		environment) <ul style="list-style-type: none"> <li>21 km<sup>b</sup> of buried network reinforcement pipes within Dhaka 1-2m diameter</li> </ul>	

Notes:

<sup>a</sup> Indicative Contract value excludes taxes and duties and price contingencies.

<sup>b</sup> Actual length of reinforcement (package 3) may be increased to about 30 km in accordance with the recommendations of the Master Plan.

## B. Scope of Work

4. The Consultants will be engaged to perform as the Engineer for all the above contracts.

The Consultants will administer the construction contracts and ensure that the works are constructed in accordance with the provisions of the construction contracts, as stated in the Conditions of Contract, Drawings, Specifications and Bills of Quantities. In parallel to these activities the Consultants shall support the PMU in their work to ensure smooth project implementation.

5. The overall duration of the consultancy supervision services is expected to be 50 months.

6. In addition to supervision of construction of the three works contracts, the Consultant will also be required to:

- Assist the Client in pre-construction activities including contract negotiation and award;
- Carry out the detailed design of the two treated water pipeline packages (package 2 and 3);
- Design review of intakes, water treatment plant, intake, pump stations and raw water pipelines in package 1;
- Assist the Client in reviewing all documents relating to environmental and social safeguards to ensure compliance with requirements of ADB and the government;
- Support the PMU in relation to e.g. project coordination, monitoring and control, financial management and reporting, risk management, tender, tender evaluation and contracting, and environmental and social safeguards;
- Provide on-the-job training to counterpart Client's officers/staff; and
- Provide assistance for commissioning and handing over of works to the Client.

## C. Detailed tasks to be undertaken by the Consultant are as follows:

### (i) Detailed design of packages 2 and 3

7. The Consultants will prepare detailed design for packages 2 and 3. The Consultants will carry out the design so as to ensure treated water production efficiency, long service life, easy and safe maintenance and operability and completeness of works.

8. The Consultants will be issued with:

- Feasibility study carried out by Grontmij
- Topographic survey along previously purchased land corridor
- PPTA final report

- Dhaka Water Supply Master Plan

9. The detailed design of the major river crossings shall be carried out by the Contractor. The Consultants shall prepare a detailed specification outlining the design criteria to be adopted in the design. The design criteria shall form part of the bidding documents.

10. The Consultants shall then review the Contractors' design for the crossings when produced.

**11. The tasks of the Consultants will include, but not be limited to:**

- a. Collect data and reports
- b. Prepare and submit reports as listed below
- c. Carry out hydraulic analysis of existing transmission system including WaterGems Model or its equivalent
- d. Identify existing utility services on routes
- e. Procure and supervise geotechnical survey
- f. Produce factual and interpretive geotechnical reports
- g. Advise on pipe material selection and pipe diameter optimization
- h. Carry out surge analysis
- i. Prepare design specification for the detailed design of the river crossings
- j. Assess right of way problems
- k. Liaise with relevant government departments (Bangladesh Inland Water Transport Authority, Bangladesh Water Development Board, Local Government Engineering Department, Roads and Highways Department, RAJUK etc) and utility suppliers
- l. Prepare details for connection to existing water supply system
- m. Collect relevant information and documents on the ongoing distribution network improvement works from the design and management consultants in coordination with PMU
- n. Prepare bidding documents and assist the Client in evaluating bids including preparation of bid evaluation reports
- o. Support the PMU and provide on the job training of client's officers/staff

**(a) Reports**

12. The following reports shall be prepared by the Consultant:

<b>Outputs</b>	<b>Date of submission of draft reports from order to commence</b>
Inception Report	4 weeks
Monthly progress reports	Monthly
Detailed survey reports	5 months
Draft detailed design report	6 months
Final detailed design report	7 months
Draft bidding documents	7 months
Final bidding documents	9 months

13. The detailed design report will contain the following:

- Basic data (topography, geology, etc.) and interpretation of these data regarding the detailed design study;
- Standards used for hydraulic and structural calculations including a comparison



- of pipeline designs for various pipe materials.
- Description of river crossings
- Description of the pipeline works to clarify the drawings and detailing construction methods and operations.
- A schedule of pipes and pipe fittings necessary for the works.
- Proposed works schedule: indication of the timing of each task links with other tasks, key dates, contractual dates.
- Bill of quantities
- Detailed cost estimate.
- Outline operation and maintenance (O&M) manual
- Update initial environmental examination (IEE) including environmental management plan (EMP); EMP will be a part of bidding documents
- Prepare a resettlement plan for distribution reinforcements in accordance with the resettlement framework of the project and detailed design
- *A drawings volume*: it will include: general layout of the proposed pipelines, pipeline profile including hydraulic profiles, location of bends, valves, pipe inverts, river, roads. River crossings. Typical drawings including thrust blocks, chambers, marker posts, erosion protection works, and any other necessary drawings.
- *A calculation notes volume*: hydraulic calculation notes regarding the pipeline carrying capacity, friction losses, flow velocities, surge, online operational control valves, sizing of thrust blocks, structural calculation notes, slope stability for deep excavations.

**(b) Bidding documents**

14. The tender documents will be in a format agreed with the financiers. The documents shall contain the following as a minimum:

- Conditions of Contract:
- Technical specifications:
- Form of tender and tender security
- Bill of quantities:
- Schedules of supplementary information:
- Form of agreement
- Drawings
- Supplementary Technical Information

**(ii) Construction supervision (all packages) and design review (package 1)**

15. The Consultant's representatives will be full-time professional engineers in the Project area under each contract and will make all necessary arrangements for quality control and implementation of the works.

16. The Consultants will carry out timely, critical reviews of the detailed designs (submitted in stages, if required by the program) prior to the commencement of that stage of works, to identify defects or omissions that compromise on consistency of the design, production efficiency, service life, easy and safe maintenance and operability and completeness of works. On completion of the reviews, the Consultants will prepare a report for each review, setting out all findings and recommendations for correcting any defects or omissions identified, for each of the three contracts. Notwithstanding these, the Consultants will immediately inform the Client of any defect or omission that may have a substantial impact on the program at the time the defect or omission is uncovered.

17. The works contracts will provide furnished site accommodation for the use of the Consultants.

18. The tasks of the Consultants will include, but not be limited to:

Pre-construction stage

- a. Review the contractor's insurance policies
- b. Review the Contractors' Environmental Management Plans (EMP)
- c. Monitor the schedule of mitigation measures for adverse environmental impacts;
- d. Agree on meeting and reporting schedules
- e. Agree on construction start and schedule
- f. Ensure that the construction methods as proposed by the Contractor for carrying out the works are satisfactory in accordance with international best practice;
- g. Check Contractor's setting out of the Works;
- h. Inspection of contractor's construction equipment; materials;
- i. Establish efficient procedures for verifying contractor performance and reporting progress and problems in a timely manner, including quality control reports, quantity survey records, requests for variation or change orders, contractor's claims and invoices;
- j. Develop and implement procedures for timely payments to the Contractors by the Client and monitor for compliance;
- k. Supervise and guide the work of NGOs that assist the implementation of resettlement plans, review the progress and reports submitted by NGOs and recommend to PMU for approval of payments;
- l. Ensure RP finalization and resettlement activities awareness by the responsible NGO

Construction stage

- a. Obtain approval of Client for changes in e.g. sub-contractor, contract price, construction schedule, time for completion.
- b. Agree measurements for works completed and in progress with the Contractor; check Contractor's interim and final valuations and prepare payment certificates;
- c. Regularly monitor physical and financial progress against the milestones as per the Contract so as to ensure completion of contract on time; maintain a daily diary of site activities including plant and labor records; hold weekly progress meetings with the Contractors to discuss progress and problems on the Contracts and take Minutes of Meetings
- d. Monitor safety of the works, property, personnel, and general public and compliance with health and safety procedures;
- e. Attend third party inspections (incl. Factory Inspection Tests) as necessary and provide certification on the quality of the supplies based on such inspections;
- f. Assess Contractors' claims for time extension, variations, additional compensation etc and recommend appropriate decisions;
- g. Check Contractors' design and drawings for all contract packages and recommend for final approval by the Client;
- h. Supervise and monitor the implementation of environmental mitigation measures required, in the event of occurrence of any unexpected environmental impacts, coordinate with the Client, to provide necessary mitigation measures; and prepare quarterly reports on

- compliance with the EMPs for the Employer and the ADB
- i. Ensure that the Contractors do not involve child labor for the execution of the civil works contracts in accordance with the provisions of the contract agreement;
  - j. Prepare and issue a monthly progress report for each Contract detailed quarterly reports giving physical and financial progress against approved Contract Programs and a detailed Project Completion Report;
  - k. Undertake all site testing of the Works and commissioning tests prior to issuing Taking Over certificates;
  - l. Provide on the job training for any counterpart staff involved in the project for strengthening their capacity in supervision of construction and managing and monitoring social and environmental safeguards;
  - m. Ensure the RP implementation and compensation prior to the civil works, and supervise and guide the work of NGOs that assist the implementation of resettlement plans, review the progress and reports submitted by NGOs and recommend to PMU for approval of payments;
  - n. Monitor and assist the PMU-SIU for grievance and redress cases during the construction activities.

#### Post-construction stage

- a. Review Contractors' submitted Operation Manuals;
- b. Monitor preparation of and approve the "as built" drawings before submission to the Employer;
- c. Prepare and submit final Project Completion Reports as required;
- d. Monitor performance of the Contractor during the Defects Liability Period;
- e. Prepare and submit draft Project Completion Report two months before end of the Defects Liability Period;

#### **(iii) Project Management and Capacity Strengthening Support to PMU and DWASA**

19. The Consultants will assist the overall project management by PMU, including necessary capacity building of the staff concerned. Capacity strengthening programs will be conducted mainly for the staff of PMU, but include other DWASA staff as relevant. The Consultants will also strengthen financial management capacity of DWASA.

20. The tasks of the Consultants will include, but not be limited to:

- Strengthen the PMU's capacity to manage and implement the Project including developing standard operating procedures, manuals, and guidelines, as well as reporting systems for smooth and efficient project management;
- Strengthen PMU's capacity for improved financial, institutional, and operational management of services;
- Develop a *Project Performance Management System* for the entire project based on the design and monitoring framework of the project, including the baseline data survey and the following regular updating and reporting up to project completion with relevant social and gender indicators and sex- disaggregated data;
- Prepare reports for financiers, including monthly and quarterly

progress reports, semiannual safeguard monitoring reports, and project completion report; inputs from the works and services relating to distribution network improvement (ICB 2.7) are consolidated for submission to government and financiers;

- Support implementation of relevant actions of the gender action plan (GAP) of the project, monitor the progress of implementation, and incorporate the progress in regular reporting;
- Review existing financial management systems in DWASA, identify rooms for improvement, advise measures for improvement, and provide training to relevant staff;
- Provide all necessary support to PMU in communicating with the Local Government Division, Inter-ministerial Project Steering Committee, various concerned ministries and government agencies, local governments, and other stakeholders;
- Support PMU in (a) preparing project specific guidelines on complaint handling and conflict resolution; (b) maintaining and regularly updating complaint/resolution data base; and (c) monitoring complaint, handling, to ensure follow up resolution efforts;
- Support PMU to establish budget control systems, according to which expenditures are compared with originally planned allocations to spot and correct significant variances;
- Assist PMU in establishing, testing, and reviewing financial accounting and ensuring accurate and timely report submissions and funds flow from the financiers with respect to the project; including the preparation of withdrawal applications;
- Provide other project-related works as requested by PMU.

**Table 1 – Indicative Staffing and Estimate of Costs of Consulting Services**

	DD	Bid Eval.	D Review	Supervision	TOTAL
<b>International</b>					
Procurement expert	4	2		2	<b>8</b>
Chief Design Engineer	6		2	1	<b>9</b>
Team Leader	9	5	6	30	<b>50</b>
Hydraulic expert	2		1		<b>3</b>
Pipeline Engineer	3		2	2	<b>7</b>
Pipeline Engineer	3		2	2	<b>7</b>
Structural Engineer	3		3	2	<b>8</b>
Structural Engineer			4	2	<b>6</b>
Geotechnical Engineer	5		3	1	<b>9</b>
Geotechnical Engineer			3	1	<b>4</b>
Senior Civil Engineer				30	<b>30</b>
Quantity Surveyor	5		1		<b>6</b>
Environmental Engineer	3		2	4	<b>9</b>
Resettlement Expert	2		2	2	<b>6</b>
Surge specialist	2		2		<b>4</b>
WTP Process Engineer			6		<b>6</b>
Mechanical Engineer			6	24	<b>30</b>
Electrical Engineer			6	24	<b>30</b>
Control Engineer			3		<b>3</b>
River Engineering specialist			3		<b>3</b>
Senior Resident Engineer			6	36	<b>42</b>

	DD	Bid Eval.	D Review	Supervision	TOTAL
Monitoring and evaluation expert	6			20	26
structural engineer - river crossing				12	12
Claim management expert				4	4
Financial management specialist	9		3	18	30
<b>Sub-total</b>	62	7	66	217	352
<b>National</b>					
Deputy Team Leader	9	5	6	30	50
Civil Engineer A	9	5	6	30	50
Civil Engineer B	9	5	6	30	50
Civil Engineer C	9		6	15	30
Design Engineer	9		6	15	30
Resettlement Expert	6	6	6	15	33
Environmental Expert	6		6	18	30
Surveyor	6		4		10
Mechanical engineer			6	24	30
Electrical engineer			6	24	30
Pipeline engineer	6		4	12	22
structural engineer	4		2	12	18
quality control specialist				36	36
Legal specialist				8	8
WTP process engineer			6	6	12
Procurement specialist	6	6			12
Financial management specialist	6	5	6	18	35
Training coordinator	4		4	16	24
CAD Staff	18		4	6	28
<b>Package 1</b>					
<i>Intake PS</i>					
Deputy Resident engineer				36	36
Assistant Resident Engineer (ARE) - civil 1				36	36
ARE-civil 2				36	36
ARE - mech/elec				36	36
ARE - mech/elec 2				36	36
<i>WTP</i>					
Deputy Resident engineer				36	36
ARE - civil				36	36
ARE-civil 2				36	36
ARE-civil 3				36	36
ARE - mech/elect				36	36
ARE- mech/elec 2				36	36
<i>Raw Water - Pipeline</i>					
Deputy Resident engineer				36	36
ARE - civil				36	36
ARE-civil 2				36	36
Environmental Inspector				36	36
<b>Package 2 - Treated Water pipeline to Dhaka</b>					
Deputy Resident engineer				30	30
ARE- civil				30	30
ARE-civil 2				30	30

	DD	Bid Eval.	D Review	Supervision	TOTAL
ARE-civil 3				30	<b>30</b>
welding inspector					<b>0</b>
Environmental Inspector				30	<b>30</b>
<b><u>Package 3 - Distribution Reinforcement pipelines</u></b>					<b>0</b>
Deputy Resident engineer				30	<b>30</b>
ARE - civil				30	<b>30</b>
ARE-civil 2				30	<b>30</b>
ARE-civil 3				30	<b>30</b>
Environmental Inspector				30	<b>30</b>
<b>Sub-total</b>	107	32	84	1155	<b>1378</b>

**APPENDIX C-II. Terms of Reference for Management and Supervision Consultants (MSC) for Distribution Network Improvement Package (ICB 2.7)**

**A. PROJECT DESCRIPTION**

**1. The Project**

1. The Dhaka Environmentally Sustainable Water Supply Project will provide more reliable and sustainable water supply in Dhaka by developing a new surface water source for supply augmentation. A surface water treatment plant with a capacity of 500 MLD will be developed at Gandharbpur together with the construction of an Intake at Meghna River and raw water transmission lines of treated water inside Dhaka. It has been decided that the project will also include distribution network improvement (DNI) of MODS zone 6 area, that will not be completed under the ongoing Dhaka Water Supply Sector Development Program (DWSSDP). The Dhaka Water Supply and Sewerage Authority (DWASA) is the executing agency (EA) of the project. The objective of the assignment is to supervise the work related to DNI under the project. The project has two main components under DNI-related tasks.

**Component A: Management and Supervision of ICB 2.7 and Preparation of Outline Design, Bid Document of ICB 2.9, 2.10**

- a) Management and Supervision of Design and Construction work undertaken by the contractor for package ICB 2.7 (Zone-6). The work consists of rehabilitation of 376 Km water distribution network and rehabilitation of about 32,000 water connections including installation of new meters.
- b) Preparation of New DNI Packages of ICB package 2.9 (MODS Zone 2 Area) and ICB 2.10 (MODS Zone 1 Area) which will include feasibility study (Pilot Project) of new area, outline design and preparation of bid documents to complete DNI (Distribution Network Improvement) in the service areas of DWASA. ICB 2.9 (Zone 2) Population in 2010 was 935,946 and for 2030 the projected population is 1,128,144, total connections 29,500, no. of production tube-well is 64, Average production 189 MLD. ICB 2.10 (Zone 1) Population in 2010 was 1,438,029 and for 2030 the projected population is 2,469,201, total connection 37,500, no. of production tube-well is 49, Average production 150 MLD.
- c) Support to Capacity (Human Resource) Development of the PMU (Project Management Unit) and Community Program and Consumer Related Division of DWASA on gender mainstreaming and social inclusiveness.
- d) Supervision of the activities of the appointed NGO (Component B)

**Component B: Resettlement, Awareness Program and Support to improving access to LICs in ICB 2.7**

- a) Assist the implementation of the resettlement plan for ICB 2.7
- b) Undertake awareness program on network rehabilitation activities, information regarding advantage of pressurized water supply through district metered area system
- c) Undertake environment and safeguard monitoring, through workshop, focus group discussions, community consultation and dissemination of posters and leaflets in the 2.7 area
- d) Support to improving access to low income communities (LIC) in the ICB 2.7 area

## **2. Consulting Services**

2. There will be two consultancy packages. Management and Supervision Consultants (MSC) and NGO. This TOR is for MSC.

### **B. SCOPE OF SERVICES**

3. The scope of the services to be undertaken by the Management and Supervision Consultant (MSC) shall cover all but not restricted to the activities described in the following sections. Throughout the services, the consultant shall all the time exercise all reasonable skill, care and diligence in the discharge of his duties and is responsible for the accuracy and completeness of his work. In all professional matters, the consultant is to act as a faithful advisor to DWASA.

#### **1. Overview**

4. The Management and Supervision Consultant (MSC) will assist the PMU in managing and implementing the Project planning, undertaking a pilot project, field verification and survey and development of network model including outline design and preparation of bid documents for packages ICB 2.9 and 2.10, assisting the PMU and PCU (Project Coordination Unit) in supervising all works under package ICB 2.7 liaising with ADB, procuring goods and works under the Project, handling financial management of the Project, and monitoring safeguards compliance of the Project. Project management activities of the consultant also include:

- a) Strengthening the PMU's capacity to manage and implement the Project
- b) Strengthening PMU by delineating its method of working, procedures, and reporting;
- c) Supervising the work under package ICB 2.7 of the contractors in full time basis.
- d) Planning & outline design including network analysis and preparing bid documents for packages ICB 2.9 and 2.10;
- e) Establishing criteria for supervision, coordination, and management, and assisting the PCUs and PMU in inspecting and monitoring.
- f) Strengthening PMU/PCUs capacity for improved financial, institutional, and operational management of services; and
- g) Ensuring and assisting the PMU for carrying out all project works in accordance with ADB's environmental and social safeguards policies (including the governance and anticorruption measures) with respect to DNI work including preparing resettlement plans (RP) for packages ICB 2.9 and 2.10, supervising the NGO in RP implementation of ICB 2.7 and monitoring of EMP by contractors
- h) Preparing reports for ADB, including monthly and quarterly progress report and project completion report and semiannual safeguard monitoring reports
- i) Supplementing and providing other project-related works, as requested by PMU

#### **2. Activities**

5. Main activities of the Management and Supervision Consultants (MSC) are described below. The description may not be exhaustive and the activities shall not necessarily be limited to those described.

##### **i. Pilot Study Project**



- To undertake a pilot project in DMA area of ICB 2.9 or 2.10 (MODS zone-1/2) areas comprises of at least 500 service connections. The work comprises of
  - (i) Isolation of a pilot area and installation of bulk water meter
  - (ii) Rehabilitation, Extension and Interconnection of waterline, service connections, etc.
  - (iii) Change of domestic meter (if needed)
  - (iv) Analysis of supply and consumption of water and prepare water balance report for 6 months
  - (v) Find out the condition of existing distribution and NRW analysis
- Detailed scope of work is summarized in Appendix B

**ii. Preparation of Outline Design and Planning for ICB 2.9 and 2.10 Pipe network:**

- Taking over from DWASA/DMC (Design Management Consultants) of the existing database, drawings, computerized GIS model, including projections based on the model for the future expansion.
- Review and verification and quality assurance of the model & take the full responsibility for using the model in network analysis with necessary modification.
- Carryout extensive survey of existing water system in ICB 2.9 (Zone 2) and ICB 2.10 (Zone 1) area and inspection of the interior condition of the pipe network by appropriate devices
- Production of a record that identifies the location and technical appropriateness of the individual service connections. Supervision and control of service connection at zonal level with appropriate materials
- Development of a network model reflecting the existing and future demand and supply, including ongoing and proposed water source development
- Up gradation of water supply system map
- Determination of production of records of - the quality / thickness / strength of the pipes.
- Identification of those pipes that need to be replaced or rehabilitated, given the existing and proposed water supply facilities. Repair and maintenance of 300, 450 mm DI/PVC by lining by appropriate materials
- Determination of the necessary expansion of the service network in areas presently supplied through inadequate piping or not served at all.
- Identification and proposal made for service pipes, connections and meters which need to be rectified / replaced.
- Considering all aspects, outline design including network analysis of water supply system to be made and place to PMU for approval.
- To provide support to PCU (Project Coordination Unit) in respect of service connections.
- Survey of existing production deep tube wells and carryout aquifer test to determine existing specific yield and existing pump capacity

**Valves and bulk meters:**

- Design the requirement of valves and bulk meters in the pipeline distribution system
- Installation of valve locators to all newly installed and existing valves in visible permanent structure
- Inspection of all existing valves and bulk meters and determination of the need for rehabilitations / replacements.

**Rehabilitation and construction of reservoirs**

- Investigation of all OHTs (Over Head Tanks)
- Determination of the need for maintenance and upgrading of the existing OHTs.
- Detailed specification and outline design of upgradation of OHTs and prepare bid document for upgradation

**iii. GIS and Database**

- Updating the GIS database by recording all existing facilities and facilities developed under the Project in collaboration with PMU for ICB 2.7, 2.9, 2.10.
- Assisting DWASA GIS cell and Zone office/PMU to maintain the GIS database and providing hands-on training to utilize, maintain, and update it
- Establish a work flow to regularly update the database even after the Project completion
- Handing over all drawing & data collected and developed, including as-built drawing to PCU and GIS Cell under the project, in electronic and printed form to DWASA for future use.

**iv. Tender Assistance**

6. Consultants will assist PMU in procuring goods, works and services (for package ICB 2.7) in accordance with ADB Procurement Guidelines (2013, as amended from time to time). The consultant will undertake the following task of ICB 2.9, 2.10.

- Structuring of suitable contracts packages for works and services under the project
- Preparation of bills of quantities for each contract packages.
- Preparation of bid documents for the above contracts using appropriate standard conditions of contract with detail of employment requirement

**v. Management and Supervision assistance**

7. The supervision assistance will continue for the entire contract (Package 2.7) implementation period and will involve not only technical matters but also the interaction with the community on the implementation program and interruption to their regular supply and to create awareness on the benefits of improved supply service, need to conserve water and the tariff structure associated with the consumption of water.

- Checking Contractors Network Design and Recommending for Approval by PMU. The consultant will review the detail design (particularly network analysis) carried out by the contractor and give comments. The contractor shall modify the design as per consultant's requirements. The consultant, after receiving revised design and drawing from the contractor, will seek approval from P.D (Project

- Director) DWASA. The contractor will commence the work after the approval of P.D/ Project Manager
- Assistance with general and detailed supervision of all construction and maintenance works.
    - The consultant will have its own supervision team for the duration of the contract, until the issue of the taking over completion certificate for each DMA under the package
    - Agreeing sub areas for implementation with contractor
    - Supervise work on daily basis, ensuring quality control
    - Encourage involvement of DWASA zonal officers/staffs
    - Interaction with environmental, social and resettlement experts
    - Weekly progress meeting with contractors
    - Highlighting O&M specific issues during implementation
  - Assistance with the interaction with the householders in rectifying the service connection, replace the meter box just near the property boundary in collaboration with the public awareness campaign supported by the resettlement NGO.
    - Mount public awareness campaigns at macro and micro community level to create awareness of benefits to be obtained and impact and disruption during construction
    - Close liaison will need to be maintained with the appointed NGO on the implementation program of the contractors
    - Appropriate campaign material to be used
    - Response from community on implementation experience to be evaluated for further fine tuning.
  - Assistance with pressure system testing of all laid, relined and burst water mains suitable segments of relined mains with new service connections.
 

For testing of completed works, specific standards apply with respect to allowable pressure loss. The process is best carried out during periods of low demand, with less chance of householders opening the closed connection valves, and it will involve

    - Notifying consumers of intension to test
    - Isolating specific segment for testing
    - Having temporary supply facility available
    - Closing all house connections at property boundary
    - Carrying out test, documenting and analyzing results
    - Making repairs, if necessary, or reactivating segment and opening connections (to be carried out by the contractor).
  - Assistance for handing over of works to DWASA after commissioning.
 

With the contractor on a sub zonal basis, the work will also be completed and handed over in stages. In the hand-over process, the contractor will provide complete as built information, test results and specific operational / maintenance requirements. The work will be jointly inspected, to ensure in particular that the as built information in relation to valves, valve and meter chambers, can be matched in the field.
  - Assistance with training of DWASA personnel based on operation and maintenance routines to be worked out by the contractor.
 

With the upgraded and rehabilitated system maintaining full pressure on the network, the DWASA zonal staff being charged with the continued O&M, will need to be familiar with the implications of such pressurized DMA system. They will need to know the standards of

workmanship for adding new lines and house connections such that no leakage can occur. Therefore the Consultant will

- Vet training programs and material developed by the contractors for instructing the DWASA zonal staff on the operations and maintenance of the network, maintaining operational pressures, identifying sources of wastage, flushing lines, maintaining bulk and consumer meters, etc.
  - Assisting with conducting training session on service connection procedure, jointing of Tee, pipe, fittings, etc.
  - Monitoring training impact and resulting performance improvements.
- Construction supervision phase deliverable include, but not limited to, the following
    - Inception report to be submitted (after one months of commencement of work)
    - Contract management manual
    - Quality assurance manual
    - Brief monthly progress report
    - Memorandums with proposal action to be undertaken to address any issues arising during the implementation of contract
    - Certificates on quality of work
    - Cash flow projections versus actual disbursements
    - Memorandums of the contractor's interim certificated payments and claims
    - Detailed annual reports
    - Project completion reports
    - O&M manuals
    -
- vi. IEE (Initial Environmental Examination), EMP (Environmental Management Plan) and RP (Resettlement Plan)**
- To update IEE (Initial Environmental Examinations) with EMP (Environmental Management Plan) and RP (Resettlement Plan) for ICB 2.7, and prepare IEEs with EMPs and RPs for ICB 2.9 and 2.10, and submit all to ADB for review prior to finalization
  - To establish a system to implement EMP to ensure compliance with ADB environmental guidelines and rules of the government of Bangladesh.
  - information disclosure of environmental and interaction with stakeholders
  - Supervise the work of NGO that assists the implementation of final RP in ICB 2.7 area
  - Develop an environmental performance checklist for the construction period (ICB 2.7)
  - Monitor the contractor's performance regarding implementation of mitigation measures and submit quarterly/semiannual report based on monitoring data/findings.
  - Ensure appropriate implementation of resettlement plan including training of PMU staffs and review of the contracts.
  - Information disclosure and interaction with stakeholders with regard to resettlement and other social matters.

**vii. Social strategy and gender issue**

- To review existing gender action plan (GAP) of Dhaka Environmentally Sustainable Water Supply Project (DESWSP) in respect of the following:
    - Objectives of the gender action plan
    - Water and associated gender issues
    - Women's participation in operation and maintenance of water supply
    - Women's involvement in construction related works
  - Make necessary improvements in the following project components
    - Building capacity of DWASA officials on gender perspective. Promote gender awareness in the institutional/capacity development component of the project.
    - Increase number of women employees. Ensure women's employment and participation. Reduce gender imbalance in staffing.
    - Addressing gender issues at project level
      - District metered area formation. Integrate gender perspective in the delivery of water supply intervention.
      - Minimization of Non-Revenue water (NRW)/Improvement of water supply situation. Integrate gender responsibilities in the usage level
    - Project implementation and monitoring. Ensuring mainstreaming of gender issue in the project implementation.
  - To prepare a detailed plan to implement gender action plan (GAP) for the incorporation of gender aspects in all pertinent parts of the project based on review and improvement of the existing DWASA Gender Action Plan (GAP)
  - Support to capacity development of PMU
    - Training needs assessment (organizational diagnostics) and training on sectorial gender issues and gender mainstreaming for implementing agencies.
    - Gender sensitization training of relevant staff of partner NGOs and contractors, NGOs specially targets for staffing
    - Gather baseline sex-disaggregated data and gender analytical information as part of any preparatory surveys, feasibility studies, assessments and reports.
    - Sex-disaggregated monitoring system.
  - Appropriate implementation of GAP, including training of PMU staffs and review of contract.  
GAP of Dhaka WASA is attached as per Appendix C for ready reference.
- viii. Support to improving access to low income communities (LICs) in the ICB 2.7 areas**

8. According to the government specific laws and rules on the supply of WSS services to slums of Dhaka City, a new division called "Community Program and Consumer Relation Division" (known as DWASA LIC cell) was created and approved by the government in 2007. The function of the division is managed on an *ad hoc* basis and coordinated by the commercial manager. DWASA has specific rules to provide water supply connection to the LIC when a land owner applies for a water supply connection on a collective basis.

9. The LIC cell of DWASA supports to Zonal/MODS managers in proactively supporting the delivery of services of low income and slum communities providing connection and in planning and developing specific program for low income and slum community expansion. It looks after the service delivery including application processes, bulk supply contract mechanisms and connection times; set zonal targets for connecting low income and slum areas; coordinate and monitor implementation across the whole DWASA service area; monitor zone operational performance against connection targets; act as a focal point of funding and implementation agencies interest in supplying urban poor service delivery; determine communication and awareness messages to encourage connection; set policy for eradication and illegal connections within DWASA network; regulation of small scale service providers etc.

10. The NGO will communicate with the LIC in the project areas in ICB 2.7 and to organize them and help them to form CBOs (Community Based Organization) to provide WatSan (Water Supply & Sanitation) services in liaison with DWASA LIC cell.

**The MSC (Management and Supervision Consultant) will monitor the activities of the NGOs and liaise with DWASA LIC cell in connection with providing water connections to LIC of the project area ICB 2.7**

**Annex D (DWASA, LIC and NGO interventions) is attached herewith for ready reference**

## C. CONSULTANTS REQUIREMENT

### Management and Supervision Consultant (MSC)

Key Specialists (Professional Staff)	Duration (Person-Month)		Total
	Management & Supervision of ICB 2.7	Outline Design and Bid Documents of ICB 2.9, 2.10	
<b>International</b>			
Project Management Specialist/Team Leader	12	4	16
Network Modeling /Design Specialist	1	3	4
Procurement/Quantity Survey Expert		4	4
<b>Sub-total</b>			<b>24</b>
<b>National</b>			
*Water Supply Expert/Deputy Team Leader	36		36
Project Financial Management Expert	6		6
Procurement/Quantity Survey Expert	7	5	12
Environmental Management Expert	5	4	9
Resettlement and Awareness Expert	18	4	22
Social Development/Gender Expert	18		18
Water Supply Engineer	30		30
Contract Management Expert	30		30
Network Modeling/Design Expert	6	3	9
GIS/CAD Expert		6	6
<b>Sub-total</b>			<b>178</b>
<b>Supervision Staff</b>			
Assistant Resident Engineer* 3	108		108
Sub-Assistant Resident Engineer* 6	216		216
Network Modeler	30		30
IT Manager	6		6
Environmental Inspector	30		30
GIS/CAD Expert	36		36

\* will also assist TL for outline design and bid document for ICB 2.9, 2.10

## D. TOR OF INDIVIDUAL CONSULTANTS

### 1. Project Management Specialist/ Team Leader (International, 16 Months)

#### (i) Tasks & Responsibilities

11. The Project Management Specialists/ Team Leader will be responsible for all overall management, implementation and supervision of design and construction work undertaken by the contractor for package ICB 2.7, which includes zone 6, 15 District Metering Areas (DMAs), and three groups of contracts of rehabilitation of approximately 376 Km of distribution pipeline of diameter varies from 150mm to 500mm and rehabilitation of about 32000 water connections including installation of meters. He is also responsible for the preparation of new Distribution Network Improvement (DNI) of Packages ICB 2.9 (Zone 2) and ICB 2.10 (Zone 1) which will include feasibility studies (Pilot project), outline design and preparation of bid documents. Consultancy services also include support to capacity development of PMU (Project Management Unit), Community Program, and Consumer relation Division of DWASA on gender mainstreaming and social inclusiveness. He will set up the management system and train other consultants and DWASA staff in their management responsibilities. The team leader will be in charge of all other consultants including timing of their inputs, quality of their inputs, liaise with DWASA PMU on a day-to-day basis and with ADB (Asian Development Bank). With each consultant, he will prepare and supervise a work plan. Once a week the team leader will hold a project progress

meeting with other consultants and the DWASA to review progress on all fronts and resolve constraints. He will also be responsible for updating the project schedule as per the critical path method of construction management. The team leader will also prepare semiannual safeguards monitoring report for ADB submission and disclosure and will prepare quarterly progress reports on GAP implementation and LIC programs. The team leader will be responsible for all reporting in a timely manner.

12. The management system must among other things show:
- a) The interrelationship of activities with one another with time as per critical path method of construction management.
  - b) Responsibilities of key stakeholders and a monthly assessment of performance
  - c) Co-ordination of activities with various implementing agencies & stakeholders including communities and NGOs. NGO will assist the implementation of resettlement plan of the package ICB 2.7 including undertaking awareness program on water conservation and hygiene education through workshop, focus group discussion, community consultation and dissemination of posters and leaflets in the 2.7 area and support to improving access to low income communities in the 2.7 area (component B)
  - d) Assist the DWASA PMU to document and develop good practice construction guideline to assist the contractor in implementing the provision.
  - e) Project cost commitments and disbursements as against budget.
  - f) Constraints encountered and progress with resolution.
  - g) Monthly reporting on project progress against project implementation schedule.
  - h) Minutes of monthly project management meetings.
  - i) Summary details on the contract
  - j) Compliance with loan covenants and assurance, including safeguards
  - k) Set up for quality assurance in construction supervision

## **(ii) Qualification and Experience**

13. The Team Leader Cum Project Management Specialist should be a Engineering Graduate (Civil/ Water Supply) plus Masters in water supply engineering/ project management/ development management.

14. He should preferably be a professionally qualified Chartered Civil/ Water Supply engineer not less than 20 years' experience in a) planning, b) designing, c) project management and contract administration of large scale water supply project, preferably rehabilitation of water transmission and distribution mains. He should have fully completed in all respects two or more urban water supply projects as team leader which are truly functional to full designed capacity. He must have a minimum 10 years' experience in developing countries, preferably in South and South East Asia. He must have demonstrated skills in human resource management. He must have experience on donor-funded project (ADB/World Bank) so that he is familiar with donor guideline. Additional credit will be given having experience in ADB funded water supply project. He shall also be required to give references for at least three of his recent clients.

## **2. Network Modeling Specialist (International, 4 Months)**

### **(i) Tasks & Responsibilities**

15. The network-modeling specialist will analyze existing and future demand and assess distribution networks of ICB package 2.7, 2.9 and 2.10 of DWASA. He shall identify pipes and other facilities for replacement/ rehabilitation in consultation with relevant team



members. He will be responsible for survey & network designing of all the above-mentioned ICB packages. He will make sure that DWASA maintains proper record of pipes and other facilities in digital form, including all works to be developed under the project. He will train and handover the model to DWASA staff to enable them update and utilize it by them. He will also carry out computer analysis of the existing water supply network. Identify existing hydraulic constraints and their rectification for incorporation in the project.

**(ii) Qualification and Experience**

16. The network modeling specialist/experts should have a Degree in civil/water supply engineering preferably a masters which include network modeling, planning & design water supply systems and a thorough knowledge on the use of popular software, namely EPANET, WaterCAD, etc. are an imperative. He/she should also have at least 10 years' experience in network modeling of urban water supplies. He ought to have experience of working in developing countries.

**3. Procurement/ Quantity Survey Expert (International, 4 Months)**

**(i) Tasks & Responsibilities**

17. The Procurement / quantity survey specialist will be responsible for preparing the bills of quantities and the legal part of the tender documents of the package ICB 2.8, 2.9 and 2.10. Using the bills of quantities and unit costs obtained from a study of similar contracts under execution, or already executed, the quantity survey specialist will prepare the confidential "engineers estimates" to be used for the financial planning process. He will be responsible for overseeing quantities to verify or otherwise the contractors claims and will participate in certifying the contractor's monthly statements for payment. He will ensure that the ICB procurement is conducted in accordance with ADB Procurement Guidelines (2013, as amended from time to time). He will make a schedule and follow-up the progress of the procurement process on all major procurement items of all above mentioned ICB packages. He will responsible to see that the quality work as envisaged can be implemented for the price tendered and that the material and work procured are according to specifications. He will conduct a skills gap analysis of the DWASA procurement staffs; propose appropriate training and capacity building intervention to address such gaps.

**(ii) Qualification and Experience**

18. The procurement/quantity survey specialist shall have a degree in any engineering discipline / quantity surveying and simultaneously have proven track record of exposure/involvement in the procurement related aspects of development projects and a good familiarity with the Procurement Guidelines of ADB or other multilateral development bank. He should have at least 15 years of experience in contract management in water supply projects, at least 5 years working experience in developing countries and handled at least one internationally funded urban water supply project. He also should have handled at least one or more water supply projects, which are truly functional in all aspects to full designed capacity.

**4. Water Supply Expert/Deputy Team Leader (National, 36 Months)**

**(i) Tasks & Responsibilities**

- Assist the Team Leader in all aspects including strengthening communication with counterpart staff to the government.
- Ensure sufficient and meaningful involvement of the counterpart staff of the DWASA in the successful implementation of the package ICB 2.7 and feasibility study

- (pilot project), planning, outline design and preparation of bid document of other packages 2.8, 2.9, 2.10.
- Assist PMU staff preparing outline design and bid document with coordination with other specialist for the package ICB 2.8, 2.9, and 2.10.
  - To manage the local consultants team
  - Support PMU with contract management and recommendation for payment
  - Establish contract-tracking system, including implementation schedule and milestone of the package ICB 2.7.
  - Arrange a training program for construction supervision, O&M staff and conduct the training for contractors in respect of ADBs procedure and guidelines
  - Develop manuals pertaining to program quality assurance and quality control
  - Check that the contractor's proposal are in agreement with all environmental and social safeguard requirement
  - Review methodology, outline designs and organization proposal of the contractor for ICB 2.7
  - Assist PMU staff supervising the site activities of the contractor for ICB 2.7
  - Coordinate with local authorities and other institutions as required for the program delivery
  - Assist PMU staff to supervise construction of all transmission networks & distribution networks, storage structures
  - Conduct training program for O&M staff during commissioning of the schemes
  - Preparation of O&M manuals
  - Assist TL in the implementation of pilot project in one DMA (District Metered Area) of ICB 2.9, 2.10
  - Assist TL in supervising activities of NGO who will undertake Resettlement Plan, Awareness Campaign & Support least income communities (LICs)
  - Assist TL in respect of IEE & EMP of Package ICB 2.7

## **(ii) Qualification and Experience**

19. The water supply specialist/Deputy team leader should be a civil engineer graduate and should have master degree in water supply preferably a chartered professional engineer (Civil or water supply). He should have at least 20 years' experience in planning, designing, construction management of large integrated water supply projects, rehabilitation of pipe using trenching technologies, water treatment plants, river intake structures, pumping station etc. He should have handled at least one urban water supply project involving process design, detailed engineering, construction and supervision, monitoring and commissioning which is truly functional in all respect to full designed capacity. He must have minimum 5 years of working in developing countries. Experience of externally funded project (ADB/World Bank) and overseas experience would be preferred.

## **5. Project Financial Management Expert (National, 6 Months)**

### **(i) Tasks & Responsibilities**

20. The project financial management expert will be responsible for financial management of the project, including budgeting, accounting and reporting. He will establish

rules and procedures in PMU for fund flow and internal control and train DWASA staff to utilize them. He will assist PMU in preparing bid documents and negotiating the contracts regarding financial matters. He will also establish a sound accounting practice and systems to manage resources available at the investment program. He will develop budgetary control process, design budget procedures and budget formats. He will train PMU staff in the preparation of annual budget estimates and disbursement plans. He will review the financial management system of government agencies involved in the program and make recommendations for optimal integration. He will direct and advise on the establishment of billing and collection system.

## **(ii) Qualification and Experience**

21. The project financial management expert should be a fully qualified accountant (corporate membership of recognized professional institution in the field of finance/accounting) with a ten years professional experience. He should be knowledgeable in current international/national accounting standards and generally accepted procedure. The specialists should have experience in design and development of accounting and budgeting systems for public enterprises.

## **6. Procurement/ Quantity Survey Expert (National, 12 Months)**

### **(i) Tasks & Responsibilities**

- To assists Procurement / Quantity survey expert (international)
- Preparation of bid documents of package ICB 2.9, and 2.10 compliance with latest bidding documents
- To review outline and detailed engineering designs of ICB packages 2.9, 2.10 in order to facilitate preparation of bid documents.

22. He will ensure that the ICB procurement is conducted in accordance with ADB Procurement Guidelines (2013, as amended from time to time). He will make a schedule and follow-up the progress of the procurement process on all major procurement items of all above mentioned ICB packages. He will responsible to see that the quality work as envisaged can be implemented for the price tendered and that the material and work procured are according to specifications. He will prepare contract package and prepare procurement time schedule for each contract package. In addition, he will carry out the following tasks:

- Receives, examines and process requisitions; prepare bid documents with specification and other necessary documents related to the purchase of supplies, materials and equipment; prepare documents with requisition or locate source of supply, and places order with appropriate bidder(s).
- Compares costs and evaluates the quality and suitability of supplies, materials and equipment.
- Confers with bid document of ICB 2.9, 2.9 and TL/PMU to determine purchasing needs and specification.
- Maintain records on the purchase price information on both open market and contract purchases and revises these as condition changes; obtain quotations on open market purchases.
- Analyses purchase trends to determine if an agency contract benefits DWASA.
- Assist PMU/DWASA in the supervision and training.

### **(ii) Qualification and Experience**

23. The procurement/quantity survey specialists shall have a master degree or degree in any engineering discipline preferably in Civil engineering or procurement, commerce, law, business or finance with relevant training in procurement. He should have at least 10 years of experience in procurement/ contract management in major urban water supply projects and handled at least one internationally funded urban water supply project. Overseas experience is preferred.

## **7. Environmental Management Expert (National, 9 Months)**

### **(i) Tasks & Responsibilities**

24. The environmental management expert will inspect and investigate source of pollution to protect the public and environment and ensure conformance with local environmental regulatory ordinances. He will also responsible for the followings

- Support TL to draw CDP (Community Development Plan) for the relevant project staff engaged for environmental assessment and management, and prepare and arrange for training programs
- Support the preparation and/or updating of initial environmental evaluation (IEE) including EMPs or environmental impact assessment (EIA) if warranted
- Guide the process of collecting and reviewing all relevant data, studies and reports in each sub project area related to the environment, screen and evaluate the direct and indirect environmental impacts and assess alternative options
- Guide the process of identifying measures to mitigate and monitor the environmental impacts, their cost estimate, and institutional arrangements, with public consultation with the stakeholders and in liaison with department of environment (DOE)
- Support the preparation/updating of the IEE/EIA report following the standard format and providing required details for submission to ADB for review and approval
- Review and guide the establishment and effective operation and quality control of environmental management plans for the project area, with provision of necessary orientation and training to the staff of PMU (Project Implementation Unit), PCU (Project Coordination Unit)
- Review the contractors' Environmental Implementation Plans to ensure compliance with the IEE/EMP.
- Oversee implementation of the EMP during construction of ICB 2.7 including environmental, health and safety monitoring of contractors;
- Coordinate with the DWASA PMU, MSC (Management and Supervision Consultant) Resettlement Specialist, NGO, and contractors on mitigation measures involving the community and affected persons and ensure that environmental concerns and suggestions are incorporated and implemented in the project;
- During the construction phase, monitor and ensure compliance of EMPs by contractors as well as any other environmental issues. Take corrective actions when necessary to ensure no environmental impacts;
- Review site specific environmental enhancement/mitigation designs, compliance reports by contractors, submit monthly environmental monitoring reports to the DWASA PMU, and advice the same on corrective actions; and
- Assist DWASA PMU in finalizing monitoring reports for submission to ADB on semi-annual basis.

### **(ii) Qualifications and Experiences**

25. The environmental management expert must have a degree, preferably with Master's in civil/environmental engineering/ management/ science and at least 15 years' experience in environmental engineering and monitoring related areas. He will also have at least 2 years of experience in administering ADB environmental guidelines. Experiences with international organizations shall be an added advantage.

## **8. Resettlement and Awareness Expert (National, 22 Months)**

### **(i) Tasks & Responsibilities**

26. The resettlement and awareness expert will be responsible for ensuring compliance with ADB resettlement guideline and relevant rules of GOB. He will make/update a resettlement plan for each groups (three groups) and each DMA (District Metered Area) of ICB 2.7 based on the draft resettlement plan. He will also responsible for awareness program on water conservation and hygiene education through workshops, focus group discussions, community consultation and dissemination of posters and leaflets in the ICB package 2.7 area. During the pre-construction period, resettlement and awareness expert will deal with resettlement issues at the local level of each three groups of 16 DMAs of package ICB 2.7. includes (i) meeting with affected persons (ii) assist PMU to distribute compensation and other entitlements to affected person in each DMA (iii) conducting public consultations through focus group discussion together with appointed NGO to discuss & plan construction work with individual communities to reduce disturbance and other impacts and provide a mechanism through which he participate in project monitoring and evaluation (iv) to ensure the views of women and vulnerable groups are equally represented in project committees and other decision making bodies. During construction period the resettlement and awareness expert will responsible to furnish and up to date flow of information to the community immediately affected by the work. Implementation program including technical aspects related to consumers connections and pressurization of the network. He/she will also be responsible for awareness campaign program through entire ICB 2.7 area and cover all existing and new connected properties. He will also be responsible for extensive motivation and educational campaign that will include (i) communication of awareness programs (ii) efficient domestic water use and prevention of wastage (iii) understanding the negative aspect on quality and other users on making an illegal connection (iv) understanding the negative aspects and illegality of using water pumps to withdraw water from a DWASA supply line for which there will be no need (v) how to read meters that will be installed and how to understand the new bills, which will be sent out in due course along with the improved methods of payment (vi) communication of the benefits of the under development customer grievance redress procedures to eradicate overcharging. In addition, he will have the following tasks and responsibilities

- Guide the preparation of appropriate resettlement plans in accordance with ADBs policy on involuntary resettlement and Handbook on Resettlement.
- Guide identifying and enumerating the people likely to be affected through a land survey, census and asset inventory, and consulting the affected persons to ascertain their preference for relocation, compensation and livelihood restoration.
- Guide establishing (a) options for relocating housing and other structures; (b) options to restore or enhance livelihood; and (c) mechanisms for redress of grievances, with support of appointed NGOs of Community Based Organizations (CBOs)
- Review and guide the establishment and effective operation and quality control of implementing RPs (Resettlement Plans) for ICB 2.7 area, with provision of necessary orientation and training to the staff of PMU
- Assist other experts in handling information disclosure and social interactions

- Familiarize with DWASAs service provision and DWASA customer working arrangement
- Mobilize urban communities to be supportive to construction time and / or construction stemmed inconveniences which the implementation of the project component may bring out
- Design program and materials for launching mass media campaign along with DWASAs PMU and appointed NGO.
- Supervise the work of NGO that assists the implementation of RP in the ICB 2.7 area
- Assist to provide water supply connections to low income communities (LICs) in the ICB 2.7 area
- Help in developing ownership, especially among the poorer section of the town, low income communities (LIC) regarding water supply features/ facilities for better maintenance of such facilities and attain the skill and assume responsibilities associated with communal ownership of infrastructure
- Assist DWASA PMU in overseeing and managing the customer grievance mechanism for the duration of the project
- Make positive efforts of improving DWASAs public relation and image and in the process, establish some transparency among the public regarding DWASA's modus operandi
- Prepare reports on the issues, progress and contribute to the preparation of routine/ specific reports
- Carryout any other relevant responsibilities assigned by the TL/DTL
- Assist the DWASA PMU in coordinating all social safeguards issues and ensuring that the project complies with Government and ADB social safeguards policies;
- Update the draft RP based on detailed designs and submit to DWASA PMU and ADB for review and clearance prior to construction.
- Organize an orientation workshop for the DWASA, PMU, and PCU officials involved in project implementation on ADB Safeguards Policy Statement, 2009, Government of Bangladesh laws and policies (Acquisition and Requisition of Immovable Property Ordinance 1982 [ARIPO]), and RP preparation process;
- Organize an induction course for the training of contractors preparing them on RP implementation, requirements related to mitigation measures, and on immediate actions to be taken to remedy unexpected negative social impacts or ineffective mitigation measures, if any during implementation.
- Undertake joint transect walks on sections ready for construction with DWASA PMU/PCU, Contractor's Safeguards Supervisor; and project NGO for roads, to determine nature of potential impacts / necessity for detailed measurement surveys (DMS). Conduct DMS and inventory of loss surveys prior to displacement in sections ready for construction, determine/finalize number of APs/vulnerable APs in consultation with DWASA PMU and project NGO, and coordinate valuation and finalization of compensation with the DWASA PMU.
- Oversee implementation of RP by the contractors to ensure that it is consistent with government and ADB policies, as agreed in the RP for the project by the government and ADB. This will include overseeing implementation of proposed rehabilitation measures, consultations with APs during rehabilitation activities, and grievance redressal.
- Work in close coordination with/provide guidance to the project NGO on safeguards related work in tenement gardens, including awareness generation on entitlements, compensation, mitigation measures, and grievance redressal.

- Support the DWASA PMU in addressing any grievances brought about through the Grievance Redress Mechanism in a timely manner as per the RP (Resettlement Plan).
- Undertake internal monitoring of RP implementation; review monthly progress reports on social safeguards by contractors; oversee monitoring surveys of APs as required to determine receipt of entitlements and satisfaction levels; and submit monthly social safeguards monitoring reports to the PMU. Provide necessary guidance to the DWASA PMU in monitoring and reporting on social safeguards to ADB during implementation.
- Develop RPs for ICB 2.9 and 2.10

## **(ii) Qualifications and Experiences**

27. The resettlement specialist shall have master degree in sociology/economics/related field with minimum 7 years experience. Past experience related to social safeguards/resettlement planning in externally funded project is required.

## **9. Social Development/ Gender Expert (National, 18 Months)**

### **(i) Tasks & Responsibilities**

28. The Social development/ Gender Expert will prepare detailed plans to implement gender action plan for the incorporation of gender aspects in all pertinent parts of the project. He / She will work with PMU as well as the Community Programme and Consumer Relation Division (the Division) of DWASA, and be responsible for strengthening the capacity of the Division and supporting overall implementation and monitoring of the social development aspects and the Gender Action Plan (GAP). The Specialist will collaborate with other consultants and NGOs. The scope of work of the Specialist will include but will not be limited to the following:

- Support the implementation of the Gender Action Plan of the Project
- Assess the training needs of the PMU and the Division
- Develop method and tools for mainstreaming gender equality, including socio-economic analysis and gender impact assessment
- Prepare/revise training materials, as necessary to train staff
- Organize/facilitate training and orientation for Community Programme and Consumer Relation Division, PMU and NGO staff on GAP and their responsibilities to implement the GAP and monitor the progress
- Review MIS and data collection mechanism to suggest incorporation of appropriate indicators in monitoring of GAP
- Support sex- disaggregated data collection, collation and gender based reporting
- Oversee that NGO teams include women and ensure women's participation in community consultation, identify their needs and ensure women's participation in CBOs
- Review the existing community training and awareness raising materials and methodologies to integrate information/topics and suggest methodologies as necessary to implement the GAP and raise voice of community women
- Oversee that the bid documents include appropriate labor related provisions
- Oversee that NGOs reach the community
- Support/participate in community orientation program, where necessary
- Oversee that NGOs facilitate women's employment opportunities in construction maintaining core labor standard by contractors and ensure reporting as per GAP
- Any other activities as necessary

## (ii) Qualifications and Experiences

29. The social development/ gender expert shall have a degree in sociology/ anthropology / social welfare/ urban and regional planning, topped up by masters in any of the above areas. He/she shall also have at least 10 years of professional experience. He/ She must have knowledge of ADB Policies and Frameworks for Gender and Development.

### 10. Water Supply Engineer (National, 30 Months)

#### (i) Tasks & Responsibilities

30. The water supply engineer will assist TL/DTL with the overall planning, outline design and implementation of the project. He will also responsible for the following

- Responsible for providing technical advices and supervision and reporting for contract of package ICB 2.7
- Assist contractor in the technical matter in implementation the contract of ICB 2.7
- Provide advice and direction on technical issues to multi-disciplinary team
- Suggest and formulate option scenarios and WS management strategies
- Prepare project plan, schedule and timeframe for publication of reports
- Oversee all procurement of services equipment and materials
- Interaction meeting with stakeholders for water supply demand and disposal of waste water
- User classification and demand computation
- Evaluation of different water supply and management options
- Attend meetings as and when required
- Responsible for water quality control of output of the study team
- Contribute and review reports and give suggestions for improvement and will complete in time
- Guide the respective training program and workshop

#### (ii) Qualifications and Experiences

31. The water supply engineer shall possess a degree, preferably a master degree in civil/ water supply engineering and have 15 years of experience in water supply engineering works. Experiences with international organizations shall be an added advantage.

### 11. Contract Management Expert (National, 30 Months)

#### (i) Tasks & Responsibilities

32. The tasks of contract management expert are as follows

- Review and approve the construction methodology and schedule submitted by the contractor
- Implement a construction management system for the works
- Supervise and monitor the contractors activity to ensure satisfactory standards, quality assurance, control of workmen ship and progress
- Approve the materials and equipment brought by the contractor
- Prepare and implement any minor adjustment required to the drawings and plans with the consultation of PMU (Project Management Unit)
- Monitor the environmental impact during construction and coordinate with the environmental management expert in the PMU
- Check monthly measurement of work and certify payment



- Coordinate with other specialists such as environment, community development, resettlement, public awareness and training
- Implement other programs such as on site sanitation and drainage program as reported by PMU
- Ensure that any dispute arising with day to day work is resolved at site level
- Advise PMU on claims, dispute and completion and defect correction certification
- Report progress of work, which are likely outcome of contracts and other related information required to the Team/ Deputy Team Leader.
- Assist PMU with handling legal matters with contractors regarding the implementation of contract
- Participate in site meetings and will handle all variation orders
- Handle all claims from the contractors and will support the supervision engineers (ARE and SARE) in all contractual matters
- Participate in preliminary handing over and final handing over sessions and will keep track of outstanding works to be carry out as a result the inspections performed in connection with the handing over sessions.
- check all safety measures both in works and labors

#### **(ii) Qualification and Experience**

33. The contract management expert should be a senior graduate civil engineer preferably chartered civil / water supply engineer with not less than twelve years of experience in water supply field. He should have minimum of six years of field experience in supervision of large water supply construction contracts. Preference will be given on overseas experience and also external aided projects (ADB/World Bank).

### **12. Network Modeling Expert/ Design Engineer (National, 12 Months)**

#### **(i) Tasks & Responsibilities**

34. The network-modeling specialist (National) will assist the network-modeling specialist (International) to analyze existing and future demand and assess distribution networks of ICB package 2.7, 2.9 and 2.10 of DWASA. He shall identify pipes and other facilities for replacement/ rehabilitation in consultation with relevant team members. He will be responsible for survey & network designing of all the above-mentioned ICB packages. He will responsible for development of network analysis strategy in conjunction with the Network Modeling Expert (International) and the creation of calibrated simulation network analysis models and promote the effective use of modeling tools for operational activities. He will also assist TL in Implementation of Pilot project in one DMA of ICB 2.9, 2.10. He will make sure that DWASA maintains proper record of pipes and other facilities in digital form, including all works to be developed under the project. He will train and handover the model to DWASA staff to enable them update and utilize it by them. He will also carry out computer analysis of the existing water supply network. Identify existing hydraulic constraints and their rectification for incorporation in the project.

#### **(ii) Qualifications and Experiences**

35. The network modeling specialist/experts should have a Degree in civil/water supply engineering preferably a masters which include network modeling, planning & design water supply systems and a thorough knowledge on the use of popular software, namely EPANET, WaterCAD, etc. are an imperative. He should also have at least 10 years' experience in network modeling of urban water supplies. Experience with international organizations shall be an added advantage.

**13. Assistant Resident Engineer (National, 36 Months, 3 Persons)**

**(i) Tasks & Responsibilities**

36. The tasks of assistant resident engineer are as follows

- Direct supervision of contractors work
- Taking measurements for the purpose of certifying payments and claims
- Quality and quality control of the materials and works
- Coordination with Dhaka City Corporation (DCC), telecommunication, electrical department and other institutions on site during construction

**(ii) Qualification and Experience**

37. The Assistant Residential Engineer shall be a graduate degree in Civil/ Water supply Engineering. He will have at least 5 years experience on construction sites in water supply field.

**14. Sub- Assistant Resident Engineer (National, 36 Months, 6 Persons)**

**(i) Tasks & Responsibilities**

38. The Sub Assistant Resident Engineer will have to work under the direction of ARE (Assistant Residential Engineer). The tasks of sub-assistant resident engineer are as follows

- Assist ARE (Assistant resident engineer) in his tasks
- Direct supervision of contractors work
- Taking measurements for the purpose of certifying payments and claims
- Quality and quality control of the materials and works
- Assist ARE to coordination with DCC (Dhaka City Corporation), DESA, Telecommunication and other institutions on site during construction

**(ii) Qualification and Experience**

39. The Sub-Assistant Residential Engineer shall be a diploma degree in Civil Engineering. He will have at least 5 years experience on construction sites in water supply project.

**15. Network Modeler (National, 30 Months)**

**(i) Tasks & Responsibilities**

40. The network modeler (National) will assist the network-modeling specialists both national and international and DTL to analyze existing and future demand and assess distribution networks of ICB package 2.7, 2.9 and 2.10 of DWASA. He will make sure that DWASA maintains proper record of pipes and other facilities in digital form, including all works to be developed under the project. He will establish and maintain relationships with GIS team to ensure accurate and up to date records are available for modeling and field delivery activities. He will provide technical support to Network modeling expert (National) through analysis of network challenges and investigations.

**(ii) Qualification and Experience**

41. The Network modeler shall be a graduate degree in Civil/ Water supply Engineering. He will have at least 5 years experience on modeling of water supply network..

**16. IT manager (National, 6 Months)****(i) Tasks & Responsibilities**

42. The IT manager will responsible for the followings
- Oversees the administration and maintenance of computer stations and software for training programs and provide additional support if necessary
  - Oversees troubleshooting, system backups, archiving, and disaster recovery and provides expert support when necessary
  - Work with project teams to help implement internal systems
  - Build and maintain vendor relationships and manage the purchase of hardware and software products
  - Ensure that assets are maintained responsibly
  - Initiate and implements improvement in all areas of IT responsibility
  - Serves as main point of contact on all IT related matters for the project
  - Identifies and provides standards for gathering information for use in trend and reports information

**(ii) Qualifications and Experiences**

43. The IT manager shall have a degree in computer science and engineering. He must have 5 years experience in IT management and relevant field. He must have experience in any Engineering/ Water Development Project.

**17. Environmental Inspector (National, 30 Months)****(i) Tasks & Responsibilities**

44. The environmental Inspector will assist the DTL/ Environmental Management Expert to implement the Environmental Management Plan (EMP) and regular monitor of regulatory measures during the implementation of ICB 2.7. He will submit day to day report regarding enforcement of environmental management plan to assistant residential engineer (ARE). He will also responsible for following tasks:

- Inspect and investigate the pollution sources
- Undertake regular monitoring of water quality parameters and sludge disposal
- Regular checking of contractor's vehicles, equipments to minimize exhaust, smoke emission
- Evaluate level for accuracy and conformance to regulation

**(ii) Qualification and Experience**

45. The Environmental Inspector shall be a diploma engineer in Civil/Environmental Engineering. He will have at least 5 years experience on environmental management and relevant field.

**18. GIS/CAD Expert (National, 36 Months)****(i) Tasks & Responsibilities**

46. The tasks and responsibilities of GIS/CAD expert are given below
- Provide the guideline and the technical details of the project
  - He will work with engineers, GIS expert and other professionals in producing drawings, input to GIS database etc.
  - He will draw maps, diagrams or plans for construction projects and others

## (ii) Qualifications and Experiences

47. The GIS/CAD expert must have degree in Civil Engineering/ Urban Planning. He shall have minimum of 5 years experience in GIS management and CAD.

### E. INSTITUTIONAL ARRANGMENT

#### 1. Project Management Unit (PMU)

48. As the EA (Executing Agency), DWASA will be responsible for the overall management, supervision, and execution of the Project. A PMU has already been established. The PMU will be responsible for all day-to-day management of the Project, including but not limited to (i) preparing the overall project implementation plan and detailed work program; (ii) providing overall monitoring and guidance on implementation of works under the Project; (iii) monitoring and supervising all project management activities; (iv) preparing necessary project progress and project completion reports; and (v) ensuring full compliance with all ADB requirements, including those on environmental and social safeguards.

49. The consultants shall provide the following services to the PMU:

- Assist with the day to day management of the project.
- Assist with the preparation of the overall project implementation
- Assist with the preparation of detailed yearly implementation plans
- Be responsible for the outline design and the preparation of bid documents for package ICB 2.9, 2.10
- Assist PMU with the general and site supervision of all construction contracts for ICB 2.7
- Assist the with the preparation of progress reports incorporating budget control sections for approval by the PSC (Project Steering Committee).
- Assist with ensuring compliance with ADB policies concerning resettlement, environmental and other safeguards issues.

### F. PROJECT COORDINATION UNIT (PCU)

50. The PCUs will be responsible for liaising and coordinating with the contractors, the Management and Supervision consultants, NGOs, and other stakeholders on all day-to-day implementation of project activities under the packages ICB 2.7, 2.9, 2.10. To strengthen the PCUs in conducting these activities and addressing their day-to-day O&M issues, DWASA will assign additional staff, for the project period.

51. The consultants shall provide the following services to the PCU's:

- Assist with the verification of the computerized network model for ICB 2.7.
- Assist with the preparation of project implementation plans for approval by the PMU.
- Assist PCU (Project Coordination Unit) staff with the site supervision of construction contracts, in particular with respect to service connection replacements.
- Assist with the verification of as built drawings and records; including the setting up of the network and consumer database records and routines for continuously updating the records.
- Assist by carrying out aquifer test of existing production wells of ICB 2.7.
- Assist the PCU (by supervising works of NGO) with the execution and supervision of the public awareness program covering community involvement, understanding of tariffs, and resource conservation.

- Assist with the preparation of annual progress reports including the indicators defined for submission to the PMU.
- Assist the PCU with ensuring compliance with ADB policies concerning resettlement, environmental and other safeguards issues.

## **G. PROJECT STEERING COMMITTEE (PSC)**

52. The project steering committee will provide policy guidance and overall coordination of project implementation.

### **1. REPORTING**

#### **a. Inception Report**

53. An inception report must be submitted one month after the commencement of the work. The Report will be compiled jointly by PMU and the MSC and will represent their joint approach to implementation of the activities leading to the project outputs. The Report shall detail specific management structures, financial and administrative systems, progress. The report shall present a detailed and budgeted planning of the work to be carried out during the remaining period of the project and an outline of activities to be carried out during the project.

#### **b) Quarterly Progress report**

54. Quarterly progress reports (narrative and financial) must be submitted, describing the progress of activities, measured against the work plan. The reports will present proposals for overcoming delays and problems encountered during the period. The reports shall present the project accounts for the period and these shall be compared with the corresponding budget. Major deviations shall be explained. Accumulated accounts shall also be shown. These quarterly financial statements will be the basis for the replenishment of an imprest account according to the procedures defined by ADB's *Loan Disbursement Handbook*, as updated periodically and with arrangements between the Government and ADB.

#### **c) Semiannual Safeguard Monitoring Report**

55. Semiannual safeguards monitoring reports must be submitted by MSC to PMU and ADB for review and disclosure. The report should be based on the consolidation of monthly safeguards monitoring report submitted by NGO.

#### **d) Pilot Project Report**

56. A comprehensive report of pilot project (upon completion by 6 months) comprising of the existing condition of the water supply network, socio-economic survey, technical investigation, community sensitization, system repairs and training and support and lessons learnt should be submitted to PMU.

#### **e) Completion Report**

57. The completion report shall describe the project achievements as against project expectations. Shortcomings and successes shall be commented upon and explained. A financial statement shall be included showing disbursement flow as against the planned cash flow. Major deviations shall be commented upon and explained.

## Annex A : Information Regarding ICB 2.7

### Package Contract No. ICB – 02.7

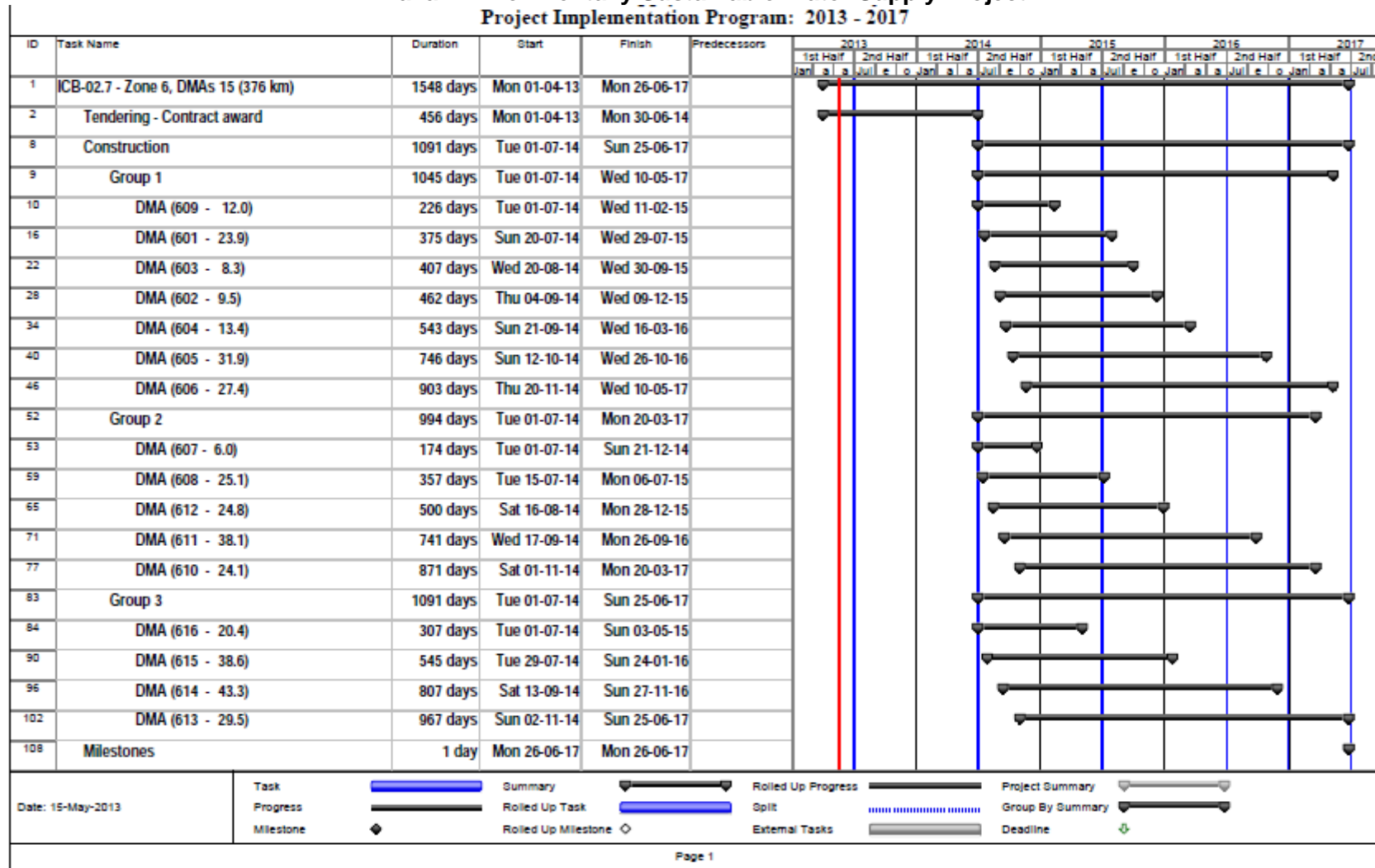
#### Scope of Work

- Pipeline rehabilitation in DMAs (**Zone 6, DMAs 15 (376Km)**)
- Well head rehabilitation, including valve and meter installation
- Service connections 32000 nos. incl. installation of meter chamber, domestic meter and float valve
- DMA boundary bulk meter installation, including chambers and valves, Valve installation
- Pressure testing and System testing in newly constructed areas
- Finally establishment of DMA

#### Project Implementation Program:

Project Implementation Program: 2014 – 2017 ICB-02.7 – Zone 6, DMAs 15 (376Km)					
DMA Name		Pipe Length (Km)	Duration (Days)	Start	Finish
<b>Group 1</b>	DMA 609 East Rampura	12.0	226	01-07-2014	11-02-2015
	DMA 601 Banashree A to F Block	23.9	375	20-07-2014	29-07-2015
	DMA 603 Meradia Bhuyan Para	8.3	407	20-08-2014	30-09-2015
	DMA 602 Banashree G to M block	9.5	462	04-09-2014	09-12-2015
	DMA 604 South Banasree	13.4	543	21-09-2014	16-03-2016
	DMA 605 Nandi Para	31.9	746	12-10-2014	26-10-2016
	DMA 606 Goran Area	27.4	903	20-11-2014	10-05-2017
<b>Group 2</b>	DMA 607 Meradia	6.0	174	01-07-2014	21-12-2014
	DMA 608 Khilgaon A Block	25.1	357	15-07-2014	06-07-2015
	DMA 612 Khilgaon A & C Block	24.8	500	16-08-2014	28-12-2015
	DMA 611 Maghbazar	38.1	741	17-09-2014	26-09-2016
	DMA 610 West Rampura	24.1	871	01-11-2014	20-03-2017
<b>Group 3</b>	DMA 616 Dhaka University and BUET	20.4	307	01-07-2014	25-06-2017
	DMA 615 Ramna Park, Officers Club area	38.6	545	29-07-2014	24-01-06
	DMA 614	43.3	807	19-09-2014	27-11-2016
	DMA 613 Gulbagh & Shahjahanpur	29.5	967	02-11-2014	26-06-2017

### Dhaka Environmentally Sustainable Water Supply Project Project Implementation Program: 2013 - 2017



**Main activities of this package**

- Commencement of works
- Survey work
- Design incl. Technical Specification
- Resettlement
- EMP (Environmental Management Plan)
- Implementation
- Traffic Planning
- Temporary Water Supply to the Consumers
- Pre commissioning (as-built records and as built drawings; and base readings)
- Obtain completion certificate
- Commissioning / Guarantee test(s)(extended approval period)
- Training period
- Obtain operational acceptance certificate
- Defects liability period
- Obtain performance certificate

**The facilities of the contract**

- Survey
- Resettlement survey
- Design
  - Detailed survey of area (location of water pipes; service connections; valves; PTW's; bulk meters; and other utility lines)
  - Detailed network modeling of the areas. Basic model (outline design) will be provided by the consultant and will be updated with additional information obtained from survey
  - Detailed design package of area incl. design drawings (1:2000) and expected work methodologies for each DMA will be submitted to the PMU and the consultant for approval.
  - Pressure testing of the existing pipeline in some DMA's, if specified, to assess installation quality, repair leaks and replace unserviceable pipes/pipeline.
- Pipe work
  - Disconnect cross connection between DMA's
  - Install bulk meters and valves at all needed cross connections between DMAs
  - Repair / Rehabilitation or replacement of existing pipe according to design
  - Extension of network to areas not adequately served
  - Pressure testing of each section of repaired / rehabilitated / replaced or new laid pipe
- Service connections
  - Installing and rehabilitating the meter chamber of each existing connection
  - Connecting the meter chamber, with the water pipes, using new materials
  - Installing water meter in meter chamber
  - Pressure testing of each service connection
  - Installing float valves at the first reservoir of the household
- Other works
  - Repair roads according to given requirements wherever needed (e.g. where permit from public road authorities has been issued)
  - Repair other utility lines in case they are damaged during the work



- Provide alternative source of water for people while being disconnected from water supply system during the implementation.

Due to the significant pressure on the transport network in Dhaka, it is foreseen that any open trenching in or near road, particularly the larger roads, will only be permitted during the night. For this reason and to minimize public disturbance, it is expected that trenchless technique will be used for replacement and rehabilitation as well as network extension and service connections. In situation where the contractor prefer the traditional trenching technology, the case must be justified and approved by the project manager.

### **General requirements of contractor's organization and staffing**

The following staff is key staff shall be fulltime employed on the project at the site:

- Contract manager (to be assigned over the entire contract period);
- Design team
  - Design manager
  - Trenching technologies / piping specialist
  - Modeling / hydraulic specialist
- Implementation team
  - Site manager
  - Trenching technologies / piping specialist
  - Control specialist
  - Quality specialist

The contract design and site manager shall be present at the site throughout working hours except when on leave, sick or absent for reasons connected with the proper performance of the contract (full time employment).

## **Annex B: Pilot Study**

### **Objective**

Understanding the existing condition of the water supply network on one DMA (District Metered Area) of ICB 2.9 and 2.10.

#### **a. Selection of Pilot project area**

The pilot project should be selected to gain experience on the implication of supplying water under pressure on 24 hour supply basis to a suitable area. The selection criteria of the pilot project are

- The area needed to be easily isolated  
The necessity of isolating the area became of prime concern as in so many network situations cross links exist to other network elements that are not documented. Without closing these links, the selected area would not be able to bring under proper 24 hour water supply conditions. It has to be mentioned that the bringing an area under 24 hour water supply is a time consuming and labor intensive task requiring a team of dedicated workers. The work would require considerable input during evening/night hours to get a proper understanding of the systems performance.
- Have about 500 connections
- Complete system data on the distribution network, valve location and house connections is readily available
- Least number of unauthorized connection is expected
- Representative mix of income groups similar to that for Dhaka as a whole
- Have an active vital community wanting to enhance its living conditions

#### **b. Information of the Existing condition of the Water Supply system**

- Checking accuracy records of water supply systems of the area
- Quality and type of materials used for pipeline & service connections
- Workmanship traditions
- Registered and unregistered connections
- Traditional way of operation and maintenance of the system
- Division of responsibilities between the various partners involved with the system at local level
- Water demand of the population
- Being able to reasonably quantify the produced water into
  - Physical losses of water by leaks
  - Administrative losses / unbilled water losses due to various reason
  - Water wasted by the consumers
  - Water serving the actual demand at the beneficiary
- Handling of water at the households
- The consumer expectation to and satisfaction with the water supply service
- The interest and the willingness of the community to participate and if needed, to contribute to the improvement of services

### **Scope of Work**

- Socio economic survey  
The social economic survey of the area is to be carried out which includes followings
  - a. Investigation of DWASA coverage, pumping pattern (hours a day)
  - b. Adequacy of level of service

- c. Information of income distribution of different ranges within the area both householders having DWASA service and those do not have.
- d. Baseline survey of un-served area
  - i. Willingness to have water connection in the pilot area
  - ii. Willingness to pay for DWASA water connection in the pilot area
- Technical investigations
  - a. Water Demand and capacity
  - b. Investigation of NRW (Non-revenue Water), unbilled water and prepare water balance calculation
  - c. Update data on pipe network regarding diameter and materials
  - d. Pipeline installation to be upgraded to an accepted construction standard regarding depth and choice of pipe material
  - e. Investigation of repair and replacement needed to control valves and network pipes
  - f. Requirement of installation of valves to control overflow of storage tanks
  - g. Use of jet pump to draw water from water lines to be discontinued
- Community sensitization
  - a. Arrangement of formal and street meetings with community members of project area. During these meetings, the project purpose, need to repair, benefit of 24 hour supply are to be communicated to them.
  - b. To carryout Focus Group Discussion and Awareness Campaign with the community members
- System repairs
 

The system may need the following minor physical activities

  - a. Installation of few District bulk water meter
  - b. Replacement of sluice valve
  - c. Construction of sluice valve/ meter chamber
  - d. Level variation survey of pipe route
  - e. Detailed technical survey and mapping of WASA pipeline
  - f. Inventory of house connections
  - g. Pressure testing and disinfection of new/extended pipe line
  - h. Interconnection of new pipeline with existing pipeline
  - i. Pressure testing and disinfection of replaced spaghetti house connections
  - j. Installation/Replacement/Repairing of new stop valves
  - k. Repairing of leakage
  - l. Rehabilitation/ shifting of house connections/ meters
  - m. Installation of float valve in underground reservoirs and roof tanks
  - n. Replacement/Repairing of Float Valves
  - o. Installation of water meter in non-metered connections
  - p. Replacement of water meter
  - q. Disconnection of bypass lines and extra lines
- Training and support
 

Training of plumbers, PMU/PCU (Zone 6, 8, 2, 10) members to carryout quality work and ensuring that they have adequate knowledge and for operation and maintenance of DMA property.

**Annex C: Gender Action Plan (GAP) of DESWSP  
(copy GAP)**

## Annex D: DWASA, LIC and NGO interventions

### Overview

According to the government specific laws and rules on the supply of WSS services to slums, DWASA has developed a mechanism to ensure W&S services in the slums of Dhaka city. A new division called “Community Program & Consumer Relation Division” (known as DWASA LIC cell) was created and approved by the government in 2007. The function of the division is managed on an *ad hoc* basis and coordinated by the Commercial Manager. DWASA has specific rules to provide water supply connection to the LIC when a landowner applies for a water connection, making him responsible for the bill. Or the dwellers can form a CBO and apply for a water supply connection on a collective basis.

**Definition of Low Income Community (LIC).** A Low Income Community is defined as a neighborhood or residential area with a minimum of 10 households or a mess unit with at least 25 members with four of the following five conditions prevailing within it:

- (i) Predominantly very poor housing
- (ii) Very high population density and room crowding
- (iii) Very poor environmental services, particularly water and sanitation facilities
- (iv) Very low socio-economic status
- (v) Lack of security of tenure (Capacity Building Service Group, 2010:14)

The LIC cell of DWASA supports to Zonal/MODS managers in proactively supporting the delivery of services of low income and slum communities providing connections and in planning and developing specific programs for low income and slum community expansion. It looks after the service delivery including application processes, bulk supply contract mechanisms and connection times; set zonal targets for connecting low income and slum areas; coordinate and monitor implementation across the whole DWASA service area; monitor zone operational performance against connection targets; act as a focal point for funding and implementation agencies interested in supporting urban poor service delivery; determine communication and awareness messages to encourage connection; set policy for eradication of illegal connections within DWASA network; regulation of small scale service providers etc.

In addition to that, the LIC cell

- (i) communicates with the LIC in the vulnerable areas and to organize them and help them to form CBOs;
- (ii) provides WSS service to the CBOs with the help of NGOs;
- (iii) organizes training for the CBO's for smooth functioning of the water point and sewerage facilities;
- (iv) coordinates among INGOs, NGOs, CBOs, Donors, DCC and Public and Social leaders;
- (v) facilitates proper working of the CBOs and set up different ToR for smooth functioning of CBOs and ensure their proper management;
- (vi) meets with CBOs and community leaders on a regular basis and to have close understanding with them on different issues and problems;
- (vii) helps organize workshops, seminars and gathering with different stakeholders;
- (viii) monitors and supervises the activities of CBOs and NGOs with regard to WatSan service and hygiene behavior;
- (ix) keeps close liaison with MODS zones, other departments within DWASA and different departments, public leaders, and CBOs;

- (x) monitors revenue collection; and
- (xi) finds out new areas of cooperation with the LIC, so that 100% WatSan coverage can be achieved.

These kinds of activities are coordinated and supervised by the cell with the support of respective NGOs. The cell also makes site visits to understand the situation and whether the CBO will be capable to pay the bill and the sustainability of the CBO. If the situation seems satisfactory, DWASA staff then helps the CBO with the application, the connection, and other software inputs for water supply.

As the utility companies were reluctant to provide water connections to people without land tenure, a significant number of people who live in slums and squatter settlements were excluded from water supply and other facilities. Recognizing the suffering of the Low Income Community (LIC) people, the NGO DSK began to convince target community households to pay for water supply services if the organization would try to negotiate with the utility agencies on their behalf. After receiving positive responses from the community, DSK started to act as an intermediary between the slum communities and the public water authorities to enable the establishment of water connections in some of the slums of Dhaka city. Then DSK proposed itself as the guarantor to the municipal authorities for making all sorts of security deposits and payment of regular bills on behalf of the slum dwellers to ensure water supply to them. Eventually, DWASA officials initially approved two water points in poor settlements of Dhaka in 1992 and 1994. Based on the experience with these two first initiatives DSK started working towards developing a replicable model for sustainable water supply for the urban poor. It managed to launch a pilot project in 12 slum communities by negotiating DWASA and Dhaka City Corporation (DCC) to build water points and to cut roads on lands own by the DCC. DSK and other NGOs came up with a very simple technical design by constructing an underground reservoir connected to a DWASA main, fitted on top with a hand pump.

**Common intervention by the NGOs to include the community people with the water service:** At the time of baseline survey the whole community (men, women, children, poor and rich) are involved in joint analysis. After the baseline survey the communities formulate an action plan together. During the initial two or three months the whole community involvement is remarkable. But in most cases the long-term day-to-day project activities; e.g., regular hygiene education sessions, are mainly targeted to women and children; due to the nature and division of work between men and women (men mainly work outside of home and they are not responsible for work related with cleanliness at household level). Some organizations work mainly with women's' groups, which they have formed for other activities e.g. women development program, or savings and credit, they facilitate hygiene promotion sessions with the same group. One of the major components of any project is the installation of hardware components (water points, individual latrines, cluster latrines or sanitation blocks) for fulfilling the practical needs of the people (men, women and children). During planning and installation of these hardware components, in many cases, men play the lead role rather than the women because of their socio economic position. The hardware components are maintained and managed by community management committees. The committee is comprised in some cases of 100% women members of the community, with men as 'advisors', in other cases it's a mixed group where both men and women share the responsibilities.

The following are the steps taken for water access for the low income community people:

- (i) Rapport building with community by partner NGO staff

- (ii) participatory community situation analysis using PRA tools to know the present water sanitation situation, available resources in the community and socio-economic status of community people with special emphasis on poor
- (iii) develop community action plan by community people
- (iv) formation community based organization (CBO)/management committee & inclusion poorest and women in the CBO
- (v) start continuous hygiene promotion activities & capacity building support to CBO which continues approximately two years
- (vi) identification of the beneficiary for water and sanitation related hardware support; poorest first
- (vii) cross check the ability of each beneficiary to finalize their % of contribution for the services
- (viii) provide hardware facility-collection beneficiary contribution (most of the beneficiary pay in weekly/monthly installment)
- (ix) support for operation and maintenance; e.g. caretaker training, follow up support and monitoring.

**Women's involvement.** The community people participate by operating water points, minor repairs and ongoing maintenance, collecting user fees, appointing caretakers and paying their salaries, regular payments of DWASA bills and repayment of NGOs capital investment. The project staff regularly visit communities and water points and continue to help build community capacity to manage the services. Through formation of community management committees with female members, they get opportunities to interact with others, often outside the home, which assists in confidence building. In addition to that, experience of dialogue and negotiation on wider issues outside the home, which creates opportunities for public mobility, and make them visible, literally, in the community.

In most cases a female caretaker from the community is selected to undertake the regular maintenance of hardware and collection of community subscriptions for repayment of the installment cost. A small amount of money is paid to caretakers as an honorarium. This sort of job opportunities for women increase their visibility and voice as community development actors and provides positive models for children, men and other women. In addition, treasurer position also tends to be occupied by the female.

Moreover, for installation of hardware components in most cases women play a vital role in site selection, which involves them in decision-making processes with men. Technical trainings for O&M are provided to one male and one female person so that if the male is out of house, the female can fix the minor repairing.

The contributions of the women were highly recognized by the slum dwellers. Women were highly encouraged in the decision making process. Management committees generally consists of 9 members and all are female. One CBO consists of 13-17 members where most members are female and the president position is reserved for a female member. Other committee formations such as advisory committee, purchase committee, water committee, sanitation committee encouraged the slum dwellers to adopt management system and achieve leadership quality.

Financial contribution of the slum dwellers are being determined based on affordability (poverty category) of the people considering their economic class. The community people repay the construction costs of establishing water point/stand and sanitation facility by installment.

**APPENDIX C-III. NGO FOR ASSISTING RESETTLEMENT PLAN IMPLEMENTATION FOR INTAKE, RAW WATER PIPELINE, GANDHARBPUR WTP, AND TREATED WATER PIPELINE UP TO THE INJECTION POINT**

**A. DESCRIPTION OF THE PROJECT**

1. The main objective of the Dhaka Environmentally Sustainable Water Supply Project (DESWSP) is to collect raw water from the Meghna river, treat the water in a treatment plant at Gandharbpur and supply treated water to the Dhaka city dwellers, mostly in Uttara, Gulshan and North Badda area through DWASA distribution system. This is to enhance use of surface raw water sources and thereby decrease reliance on groundwater abstraction. This project aims to reduce abstraction of ground water by 150 million liter per day (MLD). The raw water will be extracted from the river Meghna at Araiহার upazila and will be delivered approximately 22 km to the Water Treatment Plant (WTP) at Gandharbpur in Rupganj upazila. The treated water will then be delivered approximately 13 km to the distribution network of Dhaka city near the US embassy in Baridhara. The project area covers parts of Araiহার and Rupganj upazila of Narayanganj district and Damra upazila, Dhaka City Corporation North (DCCN) and Dhaka City Corporation South (DCCS) of Dhaka district.

2. The Project components are: (i) construction of water intake facility at Araiহার upazila; (ii) transmission pipes of raw water from intake area to treatment plants at Gandharbpur (iii) construction of water treatment plant in Gandharbpur (Gandharbpur WTP) and (iv) transmission pipes of treated water from treatment plant to distribution network in Baridhara and distribution reinforcements inside the Dhaka city water supply network.

3. To implement this project 181.3 acres of private land need to be acquired and 135.4 acre of land owned by different government agencies are going to be required. For acquisition and requisition of land, more than 3,493 households (15,213 people) are going to be displaced from their own land, structure, business and livelihood. A draft Resettlement Plan was prepared to attain all the Displaced Persons (DPs) including legal owners of the lost properties, squatters or informal owners of residential and commercial premises, or agricultural land on government land as per ADB Safeguard Policy Statement 2009. The RP will be updated under this assignment prior to implementation. Livelihood and income restoration program will need to be prepared to ensure the affected people social and economic status are restored and/or improved for the vulnerable households. To ensure adequate resource and timely implementation of the project resettlement plan, DWASA requires supports and human resources experienced with involuntary resettlement and livelihood restoration program. Qualified and experienced NGO(s) will be appointed to assist DWASA PMU and its safeguard implementation unit (SIU) in the resettlement related tasks for the project.

**B. SCOPE OF WORK- GENERAL**

4. The general scope of work for the selected resettlement implementation assistance NGO (the NGO) should include: (i) supporting PMU-SIU for RP updating and ascertain consent from affected communities on the final RP through consultations and stakeholder participation; (ii) verification of AP census and IOL data; (iii) assisting DWASA in management of AP data and documentation (MIS) for payment of compensation/resettlement benefits to DPs; (iv) assisting displaced persons (DPs) in the process of relocation/resettlement/rehabilitation; (v) assist Dhaka WASA for grievance and redress process; (vi) develop and implement livelihood restoration and community development programs for the project affected communities; (vii) develop and organize community water management activities and family health and hygiene



program (in Intake area); and (viii) maintain close coordination with DWASA staff, departments/line agencies, local government officials in the performance of tasks. Detail information of the affected households with location, quantity, and quality of structures and other assets to be affected will be given. Summary of impacts of the project are shown in Table-1 below.

**Table-1: Major Impacts of the project<sup>23</sup>**

Impacts	Components				Total
	Intake Area	Raw Water Transmission Line	Water Treatment Plant Area	Treated Water Transmission Line	
Private land to be acquired	14 acres	145.1 acres	00	22.2 acres	181.3 acres
Physical relocation	0	71	00	45	116 HH/ 510AP
Economic displacement	279	1698	331	1185	3493HH/ 15,213 APs
Structure loss	0	115,473sq2	00	66,312sq2	181785q2
Common Property loss	0	3	0	5	8 properties
Business loss	0	11	0	133	144 entities
Wage loss	0	72	0	155	227/999APs
Crop & fish harvest loss	1682	3998	3258	2443	11,381 harvest
Trees loss	0	483	7	55	545 trees
Share cropper loss	18	84	0	58	160/704APs
Agriculture labor loss	200	900	100	400	1600 labors
Lease loss	0	32	16	31	79HH/348APs

### C. SCOPE OF WORK- SPECIFIC TASKS

5. **Project Information Campaign, Public Consultation, final RP endorsement:** The resettlement NGO will design, plan and implement an information campaign in the affected areas primarily to inform the DPs about the entitlement policy and how to avail their respective entitlements. The campaign would include measures such as distribution of information booklets, leaflets, notices and other materials among the DPs, carrying out community meetings, public announcements and any other measures necessary to provide information to all DPs in the project area. The NGO will also provide assistance to DWASA-PMU SIU to disclose the final RP to the affected communities for their endorsement prior implementation.

6. **Resettlement plan (RP) updating and finalization:** Following the completion of final alignment of packages 1 and 2 of Dhaka Environmentally Sustainable Water Supply Project, the resettlement NGO will support DESWSP PMU-SIU in the updating and finalizing the resettlement plan. The final RP will be submitted by the PMU to ADB review and approval before implementation.

7. **Identification of entitled persons and issuance of ID cards:** Consult census/survey data and prepare final list of affected households, commercial business enterprises and community establishment for issuance of ID card. The ID card will be prepared by the NGO with photograph of DPs and issued by DWASA. The photograph will be attested by the Local Government Institutions (LGI) representative and pasted on ID card. The Card will be signed jointly by Area Manager of the resettlement NGO and Safeguard Officer of DWASA.

<sup>23</sup> These data need to be further confirmed by joint verification survey during project implementation.

8. **Assistance to DPs during relocation and finding replacement land:** The resettlement NGO will assist the DPs during pre and post relocation period in close coordination with Resettlement Advisory Committee. The NGO staff will also assist DPs, where necessary, in preparing grievance redress cases for consideration by the GRCs.

9. **Assistance to DWASA in payment of resettlement benefits to DPs:** The resettlement NGO will assist DWASA in processing entitlements for the DPs and making payment of resettlement benefits to them. The NGO will compile and process data and develop & operate a menu driven computerized Management Information System (MIS). The NGO will prepare DP files with type and quantity wise losses and Entitlement Card (EC) mentioning amount of compensation/benefits for each of the DPs. The NGO will also prepare payment debit voucher to facilitate DWASA in payment of compensation. The DWASA will disburse payment voucher in the name of entitled person in public place issuing prior notice in presence of LGI representatives.

10. **Assistance to DWASA for the affected families livelihood income rehabilitation and community development program (LIRCDP) in the project areas:** The appointed NGO will assist DWASA in implementing livelihood income rehabilitation and community development in the project areas. The NGO will prepare the LIRCDP program for DWASA to ensure the rehabilitation and restoration of income and livelihood of the severely affected families due to land acquisition and resettlement activities of the project. Community development program for providing of small water treatment plants for the affected communities in the Intake areas will be prepared. The NGO will prepare detail activities and schedule of the program including the criteria of the eligible APs to be included in the program.

#### **D. SCHEDULE AND DETAIL TASKS**

11. The RP will be implemented over a period of 3.5 Years with effect tentatively from August 2014 to December 2017. The resettlement assistance NGO will assist DWASA but not necessarily limited to the following:

12. **LAR Process Preparation, RP updating and implementation:** Soon after mobilization the DESWSP SIU and NGO will conduct verification on the census of the Project Displaced Persons (DPs) to finalize and/or update the RP. The NGO will assist (for example, in issuance and delivery of notice under section 3 of the LA Act) the DC office in the land acquisition process. The NGO will compare the field level data with the established database and check the available video films for any discrepancies.

13. **Joint Verification and Valuation of Property:** The NGO will participate in the assessment of the affected properties and identification of their owners/users by the Joint Verification Committee (JVC). Both JVC and the person concerned should sign verification records for each affected person. Disputes are also to be recorded. The NGO will collect, compile and process the data with regard to valuation of property by the Property Valuation Advisory Committee (PVAC) for determination of replacement market value of property affected.

14. **Issuance of Notice under Section 3:** In consultation with DWASA, the NGO will maintain liaison with DC for issuance of notice U/S- 3.

15. **Information Campaign and RP Disclosure:** The NGO will carry out consultation regarding policies and their entitlements as approved in the RP and collection of legal

documents required to claim compensation. Property owners require being advised/helped to gather all required documents. The affected people will be made aware of the GRC procedures for disputes over claims.

16. **Assessment and valuation of the acquired properties:** The NGO with Safeguard Implementation Unit (SIU) officials of DWASA, part of PIU will maintain liaison with the DC staff to record the quantity assessed by JVC and value of the properties in accordance with the acquisition law and market price determined by PVAC.

17. **Preparation of Individual entitlements:** NGO will prepare individual entitlement (entitled persons file and entitlement card) taking into account of recommendations of the Joint Verification Committee (JVC) and Property Valuation Advisory Committee (PVAC).

18. **Revision of costs estimate and budget:** The NGO will assist DWASA in revising budget in view of the JVC findings and PVAC recommendations, which will be approved by DWASA.

19. **Issuance of Notice under Section 6:** The NGO will maintain liaison with DWASA during issuance of notice under section 6 by DC and inform the owners to present required documentation for collecting CCL.

20. **Issuance of Notice under section 7:** The NGO will assist DWASA during issuance of notice U/S 7 by DC. If the legal documents are not up to date, disputes may arise. In such cases, the NGO will assist the DPs in updating legal papers. Meanwhile, GRC will be functional to resolve compensation related disputes.

21. **Issuance of ID Cards to legally identified owners:** The NGO will assist DWASA to issue ID cards to those whose legal ownership are established with DC and have no further disputes. The NGO will be responsible to prepare and distribute ID card and the DWASA will be responsible to issue it.

22. **Issuance of ID Cards to eligible non-titled DPs:** The NGO will assist DWASA to issue ID cards to those whose legal ownership are established with DC and have no further disputes. The NGO will be responsible to prepare and distribute ID card and the DWASA will be responsible to issue it.

23. **Disbursement of cash compensation under law (CCL):** When DC starts payment of CCL, legal owners will be asked to bring in all required documents at this stage to collect the payment and the NGO will assist the DPs in this connection.

24. **Disbursement of Compensation:** Payment of compensation to non-titled owners will be processed and paid by NGO under direct supervision of the DWASA. The Consultant will supervise the process and the Independent Monitoring Agency will keep record of payment.

25. **Finalizing Additional Individual Entitlements for those covered by law:** NGO will determine and finalize additional payment, if any, over the CCL amounts for the DPs.

26. **Disbursement of additional grants/allowance:** DWASA will process payment of grants to be paid to the DPs through the NGO for resettlement assistance. The NGO will prepare Entitlement Card (EC) and Indent to make payment to DPs which will need prior approval of the Project Director before making payment.

27. **Land hand-over to DWASA:** DC will pay CCL and the land will be handed over to DWASA. NGO will assist DWASA in this respect.

28. **Issuance of ID Cards to Displaced Persons (DPs):** The NGO will assist DWASA in issuance of ID cards to those whose ownerships are established during joint verification survey. The NGO will be responsible to prepare and distribute ID card and the DWASA will be responsible to issue it. The ID card will comprise name, father's/husband's name, detail address with loss type of the DPs and it will be endorsed by the NGO and DWASA representatives.

29. **Disbursement of Resettlement Benefits to squatters/ and informal DPs (without legal title to the lost property/ assets/ incomes or other allowances):** DWASA will process payment of benefits to be made to the DPs. The NGO will prepare EC to assess the benefits to be paid as per RP policy. The DWASA will disburse account payee cheque to the DPs with prior approval of the indent from the Project Director.

30. **Assist DWASA in preparing the land lease agreements with the eligible APs:** The NGO will assist DWASA and the eligible AP for drafting land lease agreements on the DWASA transmission main land not in use for service areas for agricultural activities. Terms of use and the length of lease will be determined by consultations with stakeholders.

### 1. Grievances redress procedure

31. The appointed NGO will support in the grievances redress process of the project during land acquisition and resettlement process and construction stages. Among other things the NGO will:

- (i) Ensure that the DPs are fully aware of the grievance redress procedure and the process of bringing their complaints to the grievance redress committees (GRCs).
- (ii) Assist the DPs in any usual manner (e.g., preparing applications, accompanying them to the hearing and explaining the grievance to the GRCs and the like) to bring the complaints to the committee.
- (iii) Impartially investigate the validity of the complaints and try to settle them amicably, fairly and transparently before they go to the redress committee or the courts of law.
- (iv) For more focused work in this area, the NGO will prepare a list of problem cases (based on ownership and other disputes detected while checking the status of documents, information from the DPs themselves and other sources) which would be updated as and when necessary, while RP implementation progresses. In doing so, the NGO will pay special attention to the problems and needs of the vulnerable DPs.

### 2. Livelihood and Income Rehabilitation and Community Development Program

32. Following the appointment the NGO will conduct social and economic assessment in the project affected communities to develop detail programs and activities on livelihood and income restoration programs. The program will be discussed and agreed with DWASA – SIU in order to meet the livelihood restoration objectives. The appointed NGO will have the responsibility to support the physically and economically displaced affected people (in all project areas) to:

- a) Assist the relocated AP to find and monitor the purchase of the replacement lands for the displaced farmers, households, businesses to ensure they will be able to continue their occupation and livelihood after their land and/or houses are acquired by the project;

- b) Rehabilitate and reconstruct their income generating activities of the economically displaced households through occupational/ live skills re-training, livelihood improvement, home industry and micro-credit scheme
- c) Assist the eligible AP in managing/investing working capital provided by the project to ensure their future livelihood activities.
- d) Assist DWASA in identifying replacement place for the relocated CBEs
- e) Assist and ensure the eligible APs to receive land lease priority from DWASA after the reconstruction of the transmission mains
- f) Inform and assist the eligible APs on the jobs opportunities in the project areas
- g) Inform the contractors on the interests and priorities of employments in project sites reserves for the eligible APs.
- h) Ensure the reconstructions and assistance by the contractors to rebuild the affected community properties/ facilities affected by the project activities
- i) Assist the vulnerable households in improving their livelihood conditions

33. For community development program in the Intake areas, the appointed NGO will mobilize and organize the affected communities to construct, organize the community water management facilities provided by the project as well as implementing public health education on hygiene and sanitation.

The appointed NGO will also have the responsibility to ensure special provision, as detailed in the project resettlement plan, provided to the vulnerable affected people (in all project areas):

- a) Female headed households
- b) Elderly headed households
- c) Households with disable members
- d) Poor and ultra poor households
- e) Social/religious minority households.

### **3. Management of AP data base and information system**

34. The appointed NGO will collect and maintain the computerized Census and SES data related to the pre-acquisition condition of the DP households and the nature and magnitude of all categories of losses as well as the compensation thereof to be determined by DC and the Joint Verification Committee (JVC). They should update the data based on final design. All essential information will have to be generated by using one or more menu-driven MIS. Among other things, the NGO will:

- (i) Maintain computerized baseline socioeconomic databases and collect supplementary information as and when necessary and update them, during the course of implementation.
- (ii) Collect and computerize data on individual losses and the compensation thereof, as determined by DC and JVC for all legally and socially recognized DPs.
- (iii) Collect and computerize all information on market survey and assessment of property and their owners by the PVAC (Property Valuation Advisory Committee), process data and compile reports for the PVAC recommending replacement value of land and other property.
- (iv) Collect and computerize all information related to different types of payments and additional supports as required by the RP and ADB Safeguards policy provided to the Displaced Person (DP) and update the DP file and EC.
- (v) Prepare 'entitlement card' for the individual DPs as per their types of losses and the amount of compensation due for each type of loss from legal title and the

amount of compensation if any, to be paid by DWASA through NGO as well as other non-monetary entitlements.

- (vi) Prepare and issue Identification Cards for each DP (head of the household-in case of those not covered by the law), containing his/her photograph (to be taken by the NGO itself) and other vital information.
- (vii) Record and maintain details of the issues/ disputes causing delay in the disbursement/receipt of compensation and the persons involved in them, including the cases brought to the courts of law.
- (viii) Document information on the cases, with reasons, brought to and resolved by the GRC, with decisions going in favor of or against the complainants.
- (ix) Collect and maintain relocation information on the homestead losers by categories of DP households, CBEs and CPRs.

#### **4. Progress reports**

35. The RP requires that all DPs are paid the stipulated compensations/entitlements before they are evicted or moved away from the properties and/or construction work begins. The selected NGO will provide DWASA monthly report on the progress in RP implementation, including any issue that might be hindering progress, separately for each section. The report will be brief consisting of both quantitative and qualitative information on:

- (i) The NGO in its report should reflect the status of issuance of the major notices (e.g. 3,6,7) by DC under the acquisition law, maintain a land register with valuation of the affected properties, placement of funds with DC by DWASA etc.
- (ii) Total number of DPs identified by DC for CCL and the cumulative progress made in disbursement of CCL by loss categories.
- (iii) Total number of DPs (recognized by DC) eligible for additional payment from DWASA and cumulative progress made in payment by loss and entitlement categories.
- (iv) Total number of vulnerable affected households eligible for special assistance and the progress made in implementing the related policies.
- (v) Total number of the DPs, who are not covered under GOB land acquisition law (but are RP recognized owners/users of the affected properties), identified for compensation/entitlement from DWASA and cumulative progress made in disbursement by loss and entitlement categories.
- (vi) Total number of cases received by the Grievance Redress Committee indicating the types of grievance made in favor of or against the complainants.
- (vii) Any other issues that is relevant to implementing the policies stipulated in the RP.
- (viii) The selected NGO will design tabular and other formats appropriate for reporting on the above information. To the extent possible, the tables will have to be preprogrammed in the menu-driven MIS and the quantitative reports will have to be generated directly.

#### **5. Reporting requirements**

36. The appointed NGO will report to the DWASA the progress of RP updating, implementation and livelihood restoration program at regular basis. The selected NGO shall provide 5 copies of Inception Report within 1 (one) month from the date of commencement, 10 copies of final report at the end of the project and 10 copies of monthly progress report on or before 10<sup>th</sup> day of the following month.

37. Each report shall set forth concise statement concerning the activities relevant to the jobs and will include:

- (i) A clear and complete account of work performed;
- (ii) Work planned for the next reporting period;
- (iii) Status of funding and expenditure;
- (iv) Identification of any challenges encountered or anticipated that would affect the completion of the project within the time and money constraints set forth in the agreement, together with recommended solution to such problems.

38. The appointed NGO will also assist DWASA – SIU and MSC resettlement specialist in preparing the semiannual social safeguards implementation report. This will include the progress of livelihood restoration program to the affected households and special section in the report will be dedicated to describe the condition of the vulnerable groups in the project areas to monitor their livelihood condition before and after the LAR impacts. This will include whether the special provisions as detailed in the RP are delivered by the project.

39. The appointed NGO will assist, as needed, the appointed external monitoring agency during project evaluation and monitoring activities on RP implementation.

#### **RP updating and implementation completion reports**

40. To ensure AP compensation/ rehabilitation given prior the IR impacts, in addition to the monthly progress report for DWASA, the NGO will prepare staggered RP updating and/or implementation completion report for the below sections<sup>24</sup> in the project area. They are:

- 1) Intake area
- 2) Gandharbpur WTP
- 3) Transmission main from Intake to Sejan Juice
- 4) Transmission main of raw water from Sejan Juice to Gandrabpur WTP
- 5) Transmission main of treated water from WTP to Baridhara

41. The reports should be prepared in detail with quality that acceptable to ADB standard documents. The staggered RP implementation completion report will be verified reviewed by independent external monitoring agency as well as ADB, through safeguard review mission. The PMU – SIU is responsible to submit the updated/ final RPs to ADB for review and endorsement before implementation.

42. **Co-ordination:** The NGO will meet with SIU & DWASA on a regular basis, where discussion on progress and constraints of the previous month will be held. Actions to be taken and the key actors for the tasks concerned will be identified as tasks assigned from respective agencies. In case of any items are not covered by the RP, the coordination meeting should come up with recommendations, which should be approved and implemented through executive order of the DWASA.

#### **NGO Qualification and requirements**

43. Due to the large scale of impacts and complexity of the involuntary resettlement and mitigation requirements of the project, the appointed NGO must have these following criteria:

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<sup>24</sup> Combinations of one or more sections in one updated RP are possible, base on the completion of design and the priority for civil works.

- 1) The NGO has at least 15 years experience in working and supporting the GOB and international organizations (ADB, WB, IFC, etc.) in medium to large scale resettlement activities including compensation and livelihood rehabilitation,
- 2) The NGO has at least 15 years of experienced in training programs for livelihood improvements, poverty alleviation and micro finance,
- 3) The NGO has the required capacity and networks to mobilize communities, local governments, district land offices, community leaders, and locally elected leaders
- 4) The NGO must have strong institutional capacity in terms of qualified human resources, training facilities and have central office in Dhaka city and able to open branches office in project areas,
- 5) The NGO has existing/ongoing livelihood improvement program in its institution which can absorb the project affected people into its program if they desired.
- 6) The NGO has experience and strong capacity in developing public communications modules,
- 7) Formally registered in with the NGO Affairs Bureau, or with Department Social Services or Joint Stock Companies.

### **Implementation arrangements**

44. The resettlement assistance NGO has to keep office near the concerned area during the time of implementation of the RP in order to ease contact with the DPs, the cost of which will be specified in the budget.





**Gandharbpur Water Supply Project under DWASA  
Tentative Experts' requirements for engaging Resettlement and Livelihood restoration NGO for  
Preparation and Implementation of RAP  
Period - 42 months**

<u>Particulars</u>	<b>Nos.</b>	<b>MM</b>	<b>Remarks</b>
Team Leader (resettlement)	1	38	
Deputy team leader (livelihood restoration)	1	42	
Livelihood specialist	1	36	
Financial specialist (micro finance)	1	36	
Training specialist	1	21	
Communication/public health specialist	1	21	
Data Manager/ MIS	1	42	
Data/Word Processor	2	36	
Office Manager/Accounts	1	42	
Area Manager (resettlement)	5	20	
Resettlement Organizers	16	20	parallel activities
Livelihood facilitators	21	36	parallel activities
Community Organizers (intake and WTP areas)	6	24	
<b>Subtotal</b>		<b>414</b>	
Office Assistant	2	42	parallel activities
Surveyor	26	8	parallel activities

48192.77

## **APPENDIX C-IV. NGO FOR ASSISTING RESETTLEMENT PLAN IMPLEMENTATION FOR DISTRIBUTION REINFORCEMENTS**

### **A. PROJECT DESCRIPTION**

1. The Dhaka Environmentally Sustainable Water Supply Project will provide more reliable and sustainable water supply in Dhaka by developing a new surface water supply scheme for supply augmentation, which includes development of a water intake at Meghna river, one 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 Dhaka Water Supply and Sewerage Authority (DWASA) is the executing agency (EA) of the project. The objective of the assignment is to assist the implementation of resettlement plan in areas where the distribution reinforcements will be undertaken.

### **B. SCOPE OF SERVICES OF THE NGO**

2. The scope of the services to be undertaken by NGO shall cover all but not restricted to the activities described in the following sections. Throughout the services, the NGO shall all the time exercise all reasonable skill, care and diligence in the discharge of his duties and is responsible for the accuracy and completeness of his work. The NGO will work under the guidance of PMU of DWASA.

#### **NGO Involvement**

3. The terms of reference (TOR) of the NGO comprises of:
- Assisting the implementation of resettlement plan for distribution reinforcements under the project (about 20-30 km);
  - Support and assist the finalization of resettlement plan prepared by Management, Design, and Supervision Consultant (MDSC)'s resettlement specialist
  - Undertake awareness campaign programs on water conservation and hygiene education through workshop, focus group discussion, community consultation and dissemination of leaflets in the above area;
  - Provide training to the CBOs and DWASA staff.

#### **1. Implementation of Resettlement Plan**

##### **(i) Specific objectives of the assignment**

4. The specific objectives of the assignment are to:
- act as the information source centre for community interaction with the project
  - manage the sensitization effort
  - prepare the sex-disaggregated list of the potential APs (Affected Persons) and issue ID (Identity) cards
  - prepare a video record of the project roads/ alignment one week ahead of the start of works
  - prepare the entitlement of the APs in the case of the road which will be blocked temporarily at maximum of 5 days.
  - ensure compensation payment to each APs as per resettlement plan
  - inform the affected community about the project grievance redress mechanism (GRM) and support the grievance redress activities from time to time during implementation of the works
  - maintain liaison between Community, consultant (MDSC), Contractor and PMU DWASA during the execution of the works

## (ii) Tasks to be performed

5. The appointed NGO will be responsible for ensuring that all of the required fieldwork and training associated with resettlement works are undertaken to a standard approved by the PMU in consultation with the MDSC (Management, Design, and Supervision Consultant). The scopes of the work mainly include:

- liaise with and advise the MDSC team and contractor on and before starting of any resettlement works.
- provide suitably qualified teams of field staff including women to undertake all field-work activities related to resettlement works of the project
- manage the workload of the field-workers accordingly in a timely and effective manner
- plan the work to be undertaken in conjunction with the MDSC and contractor
- advise residents and take mitigating measures on possible disturbances and measures to be undertaken during project implementation
- advise APs on the availability of grievance procedure to be followed under the project
- assist the contractor to disseminate the information about the road closures and the alternative arrangements made for the same
- prepare the list of the potential APs of the project who are likely to be affected by the project work before, during and after implementation of the actual work and issue ID card for each AP considered entitled for compensation for being affected by the project works
- develop and keep updated a sex-disaggregated database recording the APs and status of compensation payment
- ensure video-graph of the project roads/ alignments at least one month ahead of the actual project implementation works which will be considered as cut-off date of the project
- prepare the entitlement of the APs in the case of the road which will be blocked temporarily for not more than 5 days.
- ensure compensation payment by the PMU to each AP before the start of physical work
- keep the consultant (MDSC) and PMU informed about all the activities pursued under the resettlement activities of the project
- co-ordinate all field workers, activities in conducting community level information dissemination and meetings.
- mobilize APs to be supportive during construction times and construction created inconveniences, which may be brought about by the implementation of the rehabilitation project.
- adopt participatory approaches at all stages of service delivery, ensuring the views of women and vulnerable groups are equally represented in project committees and other decision making bodies.
- submit the regular monitoring and monthly and quarterly progress reports on the resettlement works to the PMU.
- carry out any other related task as may be assigned by the Project Director.

## (iii) Specific Tasks to be performed during pre-construction period

6. The contractor will be allowed to implement his works in collaboration with the NGO, who must be able to adequately respond to the detailed implementation program which will include the carrying out of technical surveys of existing network conditions, a design phase during which interaction with the community will take place, and the works execution phase when the actual physical works will impact on the community for shorter or longer duration

and to greater or lesser extent depending on the technology adopted to rehabilitate and augment the existing network.

7. In the pre-construction period, there will also be a period of close interaction with the community. In this period the NGO must deal with:

- resettlement issues at the local level in each zone, including: (i) meet APs to discuss and agree their entitlements (ii) assist PMU to distribute compensation and other entitlements to affected persons in each zone, (iii) ensure all APs receive compensation before commencement of civil works (to be communicated to PMU and contractor), and (iv) document payment to APs on official Compensation and Entitlement Forms (CEF).
- Conducting public disclosure meetings at key stages to inform the public of progress and future plans, and to provide copies of Summary Resettlement Plans in the Bangla.
- Disclosing the final Resettlement Plan by making copies available in Bangla at convenient locations in each zone, informing the public including affected women of their availability, and providing a mechanism through which comments can be made.
- conducting public consultations during detailed design including focus group discussions together with the consultant's Resettlement Specialist, having structured consultations meetings with stakeholders, and public meetings (large and small-scale) to discuss and plan construction work with individual communities to reduce disturbance and other impacts, and provide a mechanism through which stakeholders can participate in project monitoring and evaluation.
- Ensuring the views of women and vulnerable groups are equally represented in project committees and other decision making bodies and their voices heard.

8. The awareness creation on the work that is to be executed and the time table for implementation will need interaction with the contractor as well as MDSC. The MDSC will need to provide information on the extent that technologies used will reduce the impact on the population and the number of affected people.

**(iv) Specific Tasks to be performed during Construction and proofing period**

9. Before construction starts, the number of affected persons will have been identified and the compensation paid. The contractor will have his implementation program defining the technologies to be used. During this time, the NGO will play a vital role in maintaining an up-to-date flow of information to the community immediately affected by the works. The NGO will perform the following jobs:

- inform community about the jobs available for community men and women in construction and about equal wage for equal work.
- act as the source of information to both the community and contractor, acting as the go-between to have grievances redressed, either by the contractor or DWASA.
- Support contractors in updating sex-disaggregated data on employment in construction and reporting.



**D. REQUIREMENT OF STAFF (PROFESSIONALS)**

The staff involvement is envisaged to comprise:-

<b>Professional Staff</b>	<b>Total</b>
Team Leader (1 expert)	36
Field Supervisor (1 expert)	36
Field Officers (3 officers)	108

**E. TOR OF INDIVIDUAL STAFF (PROFESSIONALS)****(i) Team Leader**

- **Tasks & Responsibilities**

- Support implementation of RP ensuring meaningful community consultation.
- Support implementation of awareness campaign including development of educational materials.
- Ensure field data collection, monitoring and reporting
- Attend weekly coordination meetings with PMU resettlement focal point. Coordinate with MDSC and contractors.
- Prepare and submit to SIU PMU/ MDSC the monthly report on RP implementation progress and safeguards compliance during project implementation

- **Qualification and Experience**

Graduates with a minimum of 10 years' experience in Awareness Building and Resettlement work with orientation on social development.

**(i) Field Supervisor**

- **Tasks & Responsibilities**

Manage day to day works at the field level and ensure 100% coverage. Supervise the day to day program for the field officers. Identify shortfalls and arranging re-coverage if occupiers are unavailable. Support and supervise information meetings, and public consultations.

- **Qualification and Experience**

Graduates with a minimum of 3 years supervisory experience in public communication and consultation with orientation on social development.

**(ii) Field Officer**

- **Tasks & Responsibilities**

Conduct resettlement-related work at field level. Undertake overall activities related to information dissemination and delivery of instructional material and awareness campaigning within the area ensuring participation of both men and women of the community and target groups. Ensure compensation to affected people through door to door visits and communications. Hold public meetings and consultations. Report the progress, achievements, and constraints to supervisors in a timely manner.

- **Qualification and Experience**

Graduates with a minimum of 2 years' experience of community mobilization, focus group discussions, and community development. Familiarity with social communication tools and techniques.

## **F. SELECTION CRITERIA**

10. The NGO will be accountable to the DWASA PMU and will work in close coordination with the MSC. The NGO shall have experience of working with low income communities in Dhaka City and have team members which are graduates in sociology or related field with at least 7 years of experience in public participation, and community development techniques, community mobilization, social development work, especially in the field of infrastructure. Good background in conducting participatory community based works including public consultation and issue based focus group discussions (FGDs) and experience in working on programs for the poor and disadvantaged group in extremely funded projects is also desirable.

11. The NGOs must be registered with the NGO Affairs Bureau, or with Department Social Services or Joint Stock Companies.

The NGO must have experience and capacity in implementation of the following activities;

- Implementation of water supply and sanitation project related resettlement works with at least 3 years previous experience
- Experience and capacity in organizing and conducting mass Awareness Campaign at least 5 years' experience
- Arranging dialogues with multi-sector stakeholders
- Formation of group and conduct issue based Focus Group Discussions (FGD)

12. The NGO should have experience in all relevant communication material preparation and methodologies.

## **G. REPORTING**

13. The NGO will produce all reports and progress updates as required by the PMU which will include but not limited to

- Monthly report detailing number of properties visited, return visits required and complaints encountered and most commonly received comments.
- Quarterly report detailing costs, progress and complaints including recommendations for additional or change educational material

14. In addition, the NGO will be required to maintain detailed records of the manner in which it is performing its tasks and the results it has achieved, the meetings it has held with local communities, business and religious leaders, the community at large, affected persons and women interest groups.

15. Monthly and quarterly summaries shall be prepared and reported giving an overview of the achievements in numerical terms and as minutes of meetings documenting number of participants, subjects and understanding / appreciation of the disseminated information.



**APPENDIX C-V. NGO FOR ASSISTING RESETTLEMENT PLAN  
IMPLEMENTATION, AWARENESS RAISING, AND SUPPORTING IMPROVED ACCESS  
TO LOW INCOME COMMUNITIES FOR DNI PACKAGE (ICB 2.7)**

**A. PROJECT DESCRIPTION**

**1. The Project**

1. The Dhaka Environmentally Sustainable Water Supply Project will provide more reliable and sustainable water supply in Dhaka by developing a new surface water source for supply augmentation. A surface water treatment plant with a capacity of 500 MLD will be developed at Gandharbpur together with the construction of an Intake at Meghna River and raw water transmission lines of treated water inside Dhaka. It has been decided that the project will also include distribution network improvement (DNI) of ICB MODS Zone 6 area, that will not be completed under the ongoing Dhaka Water Supply Sector Development Program (DWSSDP). The Dhaka Water Supply and Sewerage Authority (DWASA) is the executing agency (EA) of the project. The objective of the assignment is to supervise the work related to DNI under the project. The project has two main components

**Component A: Management and Supervision of ICB 2.7 and Preparation of Outline Design, Bid Document of ICB 2.9, 2.10**

- a) Management and Supervision of Design and Construction work undertaken by the contractor for package ICB 2.7 (MODS Zone-6). The work consists of rehabilitation of 376 Km water distribution network and rehabilitation of about 32000 water connections including installation of new meters.
- b) Preparation of New DNI Packages of ICB package 2.9 (MODS Zone 2 Area) and ICB 2.10 (MODS Zone 1 Area) which will include feasibility study (Pilot Project) of new area, outline design and preparation of bid documents to complete DNI (Distribution Network Improvement) in the service areas of DWASA. ICB 2.9 (Zone 2) Population in 2010 was 935,946 and for 2030 the projected population is 1,128,144, total connections 29,500 , no. of production tube-well is 64, Average production 189 MLD. ICB 2.10 (Zone 1) Population in 2010 was 1,438,029 and for 2030 the projected population is 2,469,201, total connection 37,500, no. of production tube-well is 49, Average production 150 MLD.
- c) Support to Capacity (Human Resource) Development of the PMU (Project Management Unit) and Community Program and Consumer Related Division of DWASA on gender mainstreaming and social inclusiveness.
- d) Supervision of the activities of the appointed NGO (Component B)

**Component B: Resettlement, Awareness Program and Support to improving access to LICs in ICB 2.7**

- a) Assist the implementation of the resettlement plan for ICB 2.7
- b) Undertake awareness program on network rehabilitation activities, information regarding advantage of pressurized water supply through district metered area system
- c) Undertake environment and safeguard monitoring, through workshop, focus group discussions, community consultation and dissemination of posters and leaflets in the 2.7 area
- d) Support to improving access to low income communities (LIC) in the ICB 2.7 area

**2. Consulting Services**

2. There will be two consultancy packages. Management and Supervision Consultants (MSC) and NGO. This TOR is for NGO (Component B).

## **B. SCOPE OF SERVICES OF THE NGO**

3. The scope of the services to be undertaken by NGO shall cover all but not restricted to the activities described in the following sections. Throughout the services, the NGO shall all the time exercise all reasonable skill, care and diligence in the discharge of his duties and is responsible for the accuracy and completeness of his work. The NGO will work in close coordination with DWASA PMU for public awareness campaign to ensure dissemination of key messages that are gender sensitive, in a format easily understood by resident of the project area, timely dissemination information on implementation schedule, possible disruptions, grievance redress procedures and expected average response time, during project implementation. The NGO will generate awareness in communities (especially amongst vulnerable APs) in the project area, about employment opportunities, entitlements, livelihood compensation, transitional allowance etc. available under the project, eligibility and procedures to avail/ access the same, and facilities access to such employment. The NGO will assist DWASA & LIC (Low Income Communities) to provide water connections through formation of CBO (Community Based Organization).

### **NGO involvement**

4. The terms of reference (TOR) of the NGO comprises of:
- Assisting the implementation of resettlement plan for ICB 2.7
  - Undertake awareness campaign programs on water conservation and hygiene education through workshop, focus group discussion, community consultation and dissemination of leaflets in the ICB 2.7 area
  - Support to improving access to low income communities (LICs) in the ICB 2.7 area
  - Assist in implementation of and reporting on the relevant areas of the gender action plan
  - Provide training to the CBOs and DWASA staff

#### **1. Implementation of Resettlement Plan**

##### **(i) Specific objectives of the assignment**

5. The specific objectives of the assignment are to:
- act as the information source centre for community interaction with the project
  - manage the sensitization effort
  - update a resettlement plan in accordance with the detailed design
  - prepare the sex-disaggregated list of the potential APs (Affected Persons) and issue ID (Identity) cards
  - prepare a video record of the project roads/ alignment one week ahead of the start of works
  - prepare the entitlement of the APs in the case of the road which will be blocked temporarily for no more than 5 days.
  - ensure compensation payment to each APs as per resettlement plan
  - support the grievance redress activities from time to time during implementation of the works
  - maintain liaison between Community, consultant (MSC), Contractor and PMU DWASA during the execution of the works

##### **(ii) Tasks to be performed**

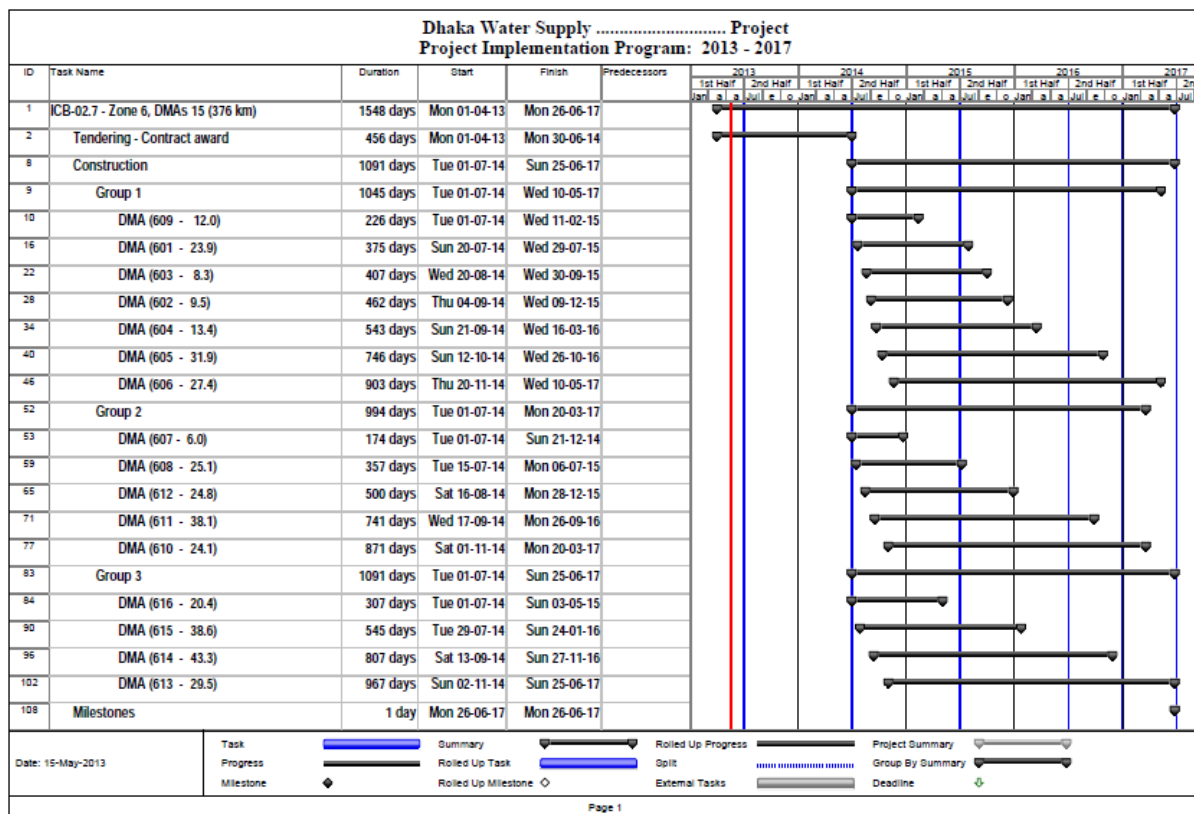
6. The appointed NGO will be responsible for ensuring that all of the required fieldwork and training associated with resettlement works are undertaken to a standard approved by the PMU in consultation with the MSC (Management and Supervision Consultant). The NGO will work under the guidance of MSC (Management and Supervision Consultant). The scopes of the work mainly include:

- liaise with and advise the MSC team and their contractor on and before starting of any resettlement works.
- provide suitably qualified teams of field staff including women to undertake all field-work activities related to resettlement works of the project
- manage the workload of the field-workers accordingly in a timely and effective manner
- plan the work to be undertaken in conjunction with the MSC contractor
- advise residents and take mitigating measures on possible disturbances and measures to be undertaken during project implementation
- advise APs on the availability of grievance procedure to be followed under the project
- assist the contractor to disseminate the information about the road closures and the alternative arrangements made for the same
- prepare the list of the potential APs of the project who are likely to be affected by the project work before, during and after implementation of the actual work and issue ID card for each AP considered entitled for compensation for being affected by the project works
- develop and keep updated a sex-disaggregated database recording the APs and status of compensation payment
- ensure video-graph of the project roads/ alignments at least one month ahead of the actual project implementation works which will be considered as cut-off date of the project
- prepare the entitlement of the APs in the case of the road which will be blocked temporarily for not more than 5 days.
- ensure compensation payment by the PMU to each AP before physical work can start
- keep the consultant (MSC) and PMU informed about all the activities pursued under the resettlement activities of the project
- coordinate all field workers, activities in conducting community level information dissemination and meetings.
- mobilize APs to be supportive during construction times and construction created inconveniences, which may be brought about by the implementation of the rehabilitation project.
- adopt participatory approaches at all stages of service delivery, ensuring the views of women and vulnerable groups are equally represented in project committees and other decision making bodies.
- submit the regular monitoring and monthly and quarterly progress reports on the resettlement works from time to time to the consultant (MSC) and PMU offices
- carry out any other related task as may be assigned by the Project Director.

**(iii) Specific Tasks to be performed during pre-construction period**

7. The contractor will be allowed to implement his works in three DMAs simultaneously and the NGO must be able to adequately respond to the detailed implementation program which will include the carrying out of technical surveys of existing network conditions, a design phase during which interaction with the community will take place, and the works execution phase when the actual physical works will impact on the community for shorter or

longer duration and to greater or lesser extend depending on the technology adopted to rehabilitate and augment the existing network. The implementation program is shown below.



8. In the first six months of a 36 months program will involve the surveys of all the DMAs in the contract, but in that period the execution of the works will also be started, such that there is an overlap of activities for the NGO input, resettlement issues during the survey period and community liaison during physical works and proofing period.

9. In the pre-construction period when the contractor is carrying out the physical conditions survey and prepares the detailed design of the network, there will also be a period of close interaction with the community. In this period the NGO must deal with:

- resettlement issues at the local level in each zone, including: (i) meet APs to discuss and agree their entitlements (ii) assist PMU (Project Management Unit) to distribute compensation and other entitlements to affected persons in each zone, (iii) ensure all APs receive compensation before commencement of civil works (to be communicated to PMU and contractor), and (iv) document payment to APs on official Compensation and Entitlement Forms (CEF).
- Conducting public disclosure meetings at key stages to inform the public of progress and future plans, and to provide copies of Summary Resettlement Plans in the Bangla.
- Disclosing completed Resettlement Plans by making copies available at convenient locations in each zone, informing the public including affected women of their availability, and providing a mechanism through which comments can be made.
- conducting public consultations during detailed design including focus group discussions together with the consultant’s (MSC) Resettlement Specialist, having structured consultations meetings with stakeholders, and public meetings (large and small-scale) to discuss and plan construction work with individual

communities to reduce disturbance and other impacts, and provide a mechanism through which stakeholders can participate in project monitoring and evaluation.

- Ensuring the views of women and vulnerable groups are equally represented in project committees and other decision making bodies and their voices heard.

10. The awareness creation on the work that is to be executed and the time table for implementation will need interaction with the contractor as well as MSC (Management and Supervision Consultant). The contractor will need to provide information on the extent to which trenchless technology will be used and where to reduce the impact on the population and by default the number of affected people in terms of resettlement.

**(iv) Specific Tasks to be performed during Construction and proofing period**

11. Before construction starts, the number of affected persons will have been identified and the compensation paid. The contractor will have his implementation program defining both the use of trenchless and conventional rehabilitation techniques. During this time, the NGO will play a vital role in maintaining an up-to-date flow of information to the community immediately affected by the works. The NGO will perform the following jobs:

- inform community about the jobs available for community men and women in construction and about equal wage for equal work.
- Inform about specific technical aspects relating to consumer connections, pressurization of the network will also have to be intimated to the community.
- act as the source of information to both the community and contractor, acting as the go-between to have grievances redressed, either by the contractor or DWASA.
- Support contractors in maintaining sex-disaggregated data on employment in construction and reporting.
- Remain in the DMA during the proofing period (3 months after completion of contract) to assist with issues on quality of service and quality of water as the case may be and to assist the project with meter reading and data logging once the rehabilitation works have been completed.

**2. Community and Social Development**

**(i) Awareness Campaign**

**a) Scope of work**

11. The NGO will be responsible for

- The delivery of the various elements of the awareness and technical education program directly to the existing and potential customers.
- Assisting in the development of and the implementation of the delivery to the public at large within the service area of Dhaka Water Supply and Sewerage Authority currently around 32,000 water connections of the administrative Zone 6;
  - Awareness raising;
  - Development of educational materials;
  - Coordinating field workers in conducting community meetings and household visits;
  - Mobilizing urban communities to be supportive in continued surveillance of service quality and any observed deterioration thereof.
- Advising DWASA on:
  - the relevant approaches to reach the consumers regarding water consumption, wastage and conservation;
  - extent of information that will be required;

- the design of leaflets, pamphlets and other devices to ensure maximum impact to the targeted audience/ dwellers.
- Planning the delivery of information dissemination programs and awareness raising information following discussions with the community and the concerned consultants.
- Providing through the MSC and the PMU of DWASA teams of fieldworkers to carry out all aspects of community based work.
- Monitoring the performance of field-based workers ensuring that all assigned work is delivered within the relevant timeframes to all locations.
- Assisting and advise the Resettlement and Awareness Expert of the MSC on the correct approaches for the implementation of community and water education programs to schools, institutions and other community groups.

#### **b) Specific Objective**

12. The specific objectives of the assignment are to:
- establish a better understanding of DWASA by the customer and vice versa;
  - establish a transparency in the operations of DWASA;
  - assist the general public in how to take meter readings, understand the billing system and the different payment options to be provided;
  - assist the public in understanding the demand for water and the common misuses to which water is frequently subjected including the illegal use of suction pumps to withdraw water from the delivery lines;
  - raise the awareness of the public in understanding the situation of the potential shortage/supply condition of water in Dhaka due to wastage;
  - familiarize customers with DWASA services;
  - Alert customers to the optimum use of water and maintaining quality of service.

#### **c) Tasks to be performed**

13. The appointed NGO will be responsible for ensuring that all of the required fieldwork and training associated with public awareness and demand control activities are undertaken to a standard approved by the PMU in consultation with the consultant (MSC).

The NGO will assist the MSC team who will prepare advisory questionnaires, pamphlets, instruments and any other means of communication deemed suitable in order to carry out the information and awareness campaigns.

Authorization by the PMU in consultation with the MSC must be received by the NGO before undertaking any activity.

14. Principal Activities of the NGO:
- Advise residents on the
    - Conservation methods suitable for households
    - Importance of repair of leaking taps valves and ball valves on cisterns
    - Types of domestic water saving devices i.e. dual flush toilets or simple volume reducers form toilets, replacement of shower heads and self-closing taps for sinks and baths
  - Legal consequences of using suction pumps, illegally connecting to DWASA services and the negative consequences of wasting water at a household level.
  - Billing methods and methods of payment
  - Reading new meters and understanding the new billing statements
  - Situation regarding availability of water and the consequences of wastage
  - A New customer grievance procedure to be implemented

## **(ii) Support to LICs**

### **a) Overview**

15. According to the government specific laws and rules on the supply of WSS (Water Supply and Sanitation) services to slums, DWASA has developed a mechanism to ensure WSS services in the slums of Dhaka city. A division called “Community Program & Consumer Relation Division” (known as DWASA LIC cell) was created and approved by the government in 2007. DWASA has specific rules to provide water supply connection to the LIC when a landowner applies for a water connection, making him responsible for the bill. Or the dwellers can form a CBO and apply for a water supply connections on a collective basis.

### **b) Definition of Low Income Community (LIC)**

16. A Low Income Community is defined as a neighborhood or residential area with a minimum of 10 households or a mass unit with at least 25 members with four of the following conditions prevailing within it:

- (i) Predominantly very poor housing
- (ii) Very high population density and room crowding
- (iii) Very poor environmental services, particularly water and sanitation facilities
- (iv) Very low socio-economic status

### **c) Scope of work**

17. The appointed NGO will be responsible to undertake necessary fieldwork activities in order to provide water supply in the LICs of ICB 2.7 area

- (i) communicate with the LIC in the ICB 2.7 areas and to organize them and help them to form CBOs ensuring participation of women and men as per target;
- (ii) organizes training for the CBO's for smooth functioning of the water points and sewerage facilities;
- (iii) coordinates among MSC, PMU, DWASA LIC cell and Public and Social leaders;
- (iv) facilitates proper working of the CBOs and set up different ToR for smooth functioning of CBOs and ensure their proper management;
- (v) meets with CBOs and community leaders on a regular basis and to have close understanding with them on different issues and problems related to Water Supply and Sanitation
- (vi) helps organize workshops, seminars and gathering with different stakeholders;
- (vii) monitors and supervises the activities of CBOs with regard to WSS service and hygiene behavior;
- (viii) keeps close liaison with MODS zones, MSC and PMU DWASA LIC cell and different departments, public leaders, and CBOs;
- (ix) monitors revenue collection by CBOs, finds out new areas of cooperation with the LIC, so that 100% WSS coverage can be achieved

### **d) Specific objectives**

- To provide water connections to the people of the low income communities (LICs) of ICB 2.7 area.
- To convince LIC households to pay for water supply services to DWASA
- To assist LICs to form CBO to set up water supply system that can be run and managed by CBO itself.

- To provide technical supervision during the construction of water supply system
- To encourage involvement of LICs women to act as caretaker to undertake the regular maintenance of hardware's of water supply system and collection of community subscriptions for repayment of the installation cost and water bill.

### **3. Training**

18. The training consist of the following

- Basic Training: 3 days
- Caretaker Training of CBOs : 2 days for each batch
- CBO (Community Based Organization) management training
- Training to CBOs on Hygiene Promotion (HP) and Behavior Change Communication (BCC)
- Training to CBOs on Supervision and Monitoring





**D. REQUIREMENT OF STAFF (PROFESSIONALS)**

20. The staff involvement is envisaged to comprise:-

Professional Staff	Duration (Person-Month)		Total
	Resettlement Work	Community and Social Development	
Team Leader*	42	-	42
Field Supervisor*2 (1 in each)	39	24	63
Field Officers*6 (3 in each)	117	72	189

\* Team Leader will also work for Community and Social Development

**E. TOR OF INDIVIDUAL STAFF (PROFESSIONALS)****1. Team Leader****(i) Tasks & Responsibilities**

- Support implementation of RP and GAP ensuring community participation confirming project benefits to LICs addressing gender targets.
- Support implementation of awareness campaign including development of educational materials.
- Support to the formation of CBOs in Low Income Communities (LICs) to provide water supply connections.
- Ensure field data collection, monitoring and reporting
- Attend weekly coordination meeting MSC and PMU resettlement focal point. Report to the NGO, MSC and PMU.

**(ii) Qualification and Experience**

Graduates with a minimum of 10 years' experience in Awareness Building and Resettlement and low income communities (LICs) work with orientation on social development and gender mainstreaming.

**2. Field Supervisor****(i) Tasks & Responsibilities**

Manage day to day works at the field level and ensure 100% coverage. Assist TL in connection with Resettlement, Awareness Program and LICs Improvement works. Supervise the day to day program for the field officers. Identify shortfalls and arranging re-coverage if occupiers are unavailable. Support and supervise information meetings, school program and water week observation.

**(ii) Qualification and Experience**

Graduates with a minimum of 3 years supervisory experience in mass communication and public contractibility with orientation on social development and gender mainstreaming.

### 3. Field Officer

#### (i) Tasks & Responsibilities

Conduct Resettlement, Awareness and LICs improvement works at field level. Undertake overall activities related to CBO formation, dissemination and information delivery of instructional material and awareness campaigning within the area ensuring participation of both men and women of the community and target groups. Awareness campaigning through door to door instruction and coaching, public meetings, after work meetings, meeting with community representatives, market committees, health institutions, and educational institutions as well as an annual water week observation program and a school program.

#### (ii) Qualification and Experience

Graduates with a minimum of 2 years' experience of group formation, community mobilization, motivation and awareness programs. Oriented towards gender mainstreaming and ensuring women's benefits. Familiarity with PRA tools and techniques. Behavior change communication.

## F. SELECTION CRITERIA

21. The NGO will be accountable to the DWASA PMU and will work in close coordination with the MSC. The NGO shall have experience of working with low income communities in Dhaka City and have team members which are graduates in sociology or related field with at least 7 years of experience in public participation, and community development techniques, community mobilization, social development work, especially in the field of infrastructure. Good background in conducting participatory community based works including public consultation and issue based focus group discussions (FGDs) and experience in working on programs for the poor and disadvantaged group in extremely funded projects is also desirable.

22. The NGOs must be registered with the NGO Affairs Bureau, or with Department Social Services or Joint Stock Companies.

The NGO must have experience and capacity in implementation of the following activities;

- Implementation of urban water supply and sanitation project related public awareness and information dissemination activities at least 5 years previous experience
- Implementation of water supply and sanitation project related resettlement works with at least 3 years previous experience
- Experience and capacity in organizing and conducting mass Awareness Campaign at least 5 years' experience
- Experience in the introduction of water supply demand control activities at least 3 years' experience
- Experience of working with Low Income Communities (LICs) areas especially providing water connections and hygiene education.
- Arranging dialogues with multi-sector stakeholders
- Formation of group and conduct issue based Focus Group Discussions (FGD)

23. The NGO should have experience in all relevant communication material preparation and methodologies.

#### **G. REPORTING**

24. The NGO will produce all reports and progress updates as required by the PMU and MSC (Management and Supervision Consultant) which will include but not limited to

- Monthly report detailing number of properties visited, return visits required and complaints encountered and most commonly received comments.
- Quarterly report detailing costs, progress and complaints including recommendations for additional or change educational material

25. In addition, the NGO will be required to maintain detailed records of the manner in which it is performing its tasks and the results it has achieved in identifying the social structure of the DMA, the meetings it has held with local community, business and religious leaders, the community at large, affected persons and women interest groups.

Monthly and quarterly summaries shall be prepared and reported giving an overview of the achievements in numerical terms and as minutes of meetings documenting number of participants, subjects and understanding / appreciation of the disseminated information.

## **APPENDIX C-VI. EXTERNAL MONITORING AGENCY FOR RP IMPLEMENTATION**

### **A. BACKGROUND OF THE PROJECT**

1. The area of the Dhaka Environmentally Sustainable Water Supply Project (DESWSP) covers parts of Araihaazar and Rugganj upazila of Narayanganj district and Damra upazila, Dhaka City Corporation North (DCCN) and Dhaka City Corporation South (DCCS) of Dhaka district. The raw water will be extracted from the river Meghna at Araihaazar upazila and will be delivered approximately 22 km to the Water Treatment Plant (WTP) at Gandharbpur in Rugganj upazila. The treated water will then be delivered approximately 13 km to the distribution net work of Dhaka city near the US embassy in Baridhara.

2. The Project has four components: (i) construction of water intake facility at Araihaazar upazila; (ii) transmission pipes of raw water from intake area to treatment plants at Gandharbpur (iii) construction of water treatment plant in Gandharbpur and (iv) transmission pipes of treated water from treatment plant to distribution network in Baridhara and distribution reinforcements inside the network.

3. The main objective for preparation of the DESWSP is to collect raw water from the Meghna river , treat the water in a treatment plant at Gandharbpur and supply treated water to the Dhaka city dwellers, mostly in Uttara, Gulshan and North Badda area through DWASA distribution system. This is to enhance use of surface raw water sources and thereby decrease reliance on groundwater abstraction. This project aims to reduce abstraction of ground water by about 150 million liter per day (MLM).

4. This project aims to attain major objective of improving water supply in Dhaka city by supplying surface water collected from the river Meghna. To implement this project 181.3 acres of private land need to be acquired and 135.4 acre of land owned by different government agencies are going to be required. For acquisition and requisition of land, more than 3,493 households (15,213 people) are going to be displaced from their own land, structure, business and livelihood. A draft Resettlement Plan was prepared to attain all the Displaced Persons (DPs) including legal owners of the lost properties, squatters or informal owners of residential and commercial premises, or agricultural land on government land as per ADB Safeguard Policy Statement 2009. The RP will be updated following the completion of engineering design. Livelihood and income restoration program have been prepared to ensure the affected people social and economic status are restored and/or improved for the vulnerable households. Land acquisition resettlement process will be conducted by DWASA with the support from qualified NGO starting in August 2014. Following ADB SPS (2009) requirements, for any ADB funded project with significant impacts on involuntary resettlement, DWASA will appoint qualified and experienced external experts as external monitoring agency (EMA) to verify and evaluate DWASA RP implementation and resettlement activities. The EMA will monitor and evaluate land acquisition and resettlement activities and provide advice for any safeguards compliance issues identified during the project implementation.

### **B. SCOPE OF WORK- GENERAL**

5. The general scope of work for the selected external monitoring agency (EMA) should include: (i) consultation with affected communities and households, especially the vulnerable groups ; (ii) verification of AP compensation payment and resettlement allowance as specified in the final RP and if any changes made during the implementation period; (iii); advise DWASA

and NGOs assisting RP implementation for any safeguards compliance issue identified during the assessment and prepare the corrective action plan when required; (iv) assess the current condition of livelihood and income generating activities of the displaced persons in comparison with their condition before the project activities; (v) assess the implementation of grievance and redress mechanism of the project; (vi) assess the resources and institutional capacity of DWASA and implementing NGO for its timely supports and adequacy in restoring the livelihood of the displaced persons; and (vii) verify the internal monitoring report on RP progress and safeguards.

6. Detail information of the affected households with location, type of impacts, and quantity of structures and other assets to be affected will be given to the EMA. Summary of impacts of the project are shown in Table-1 below.

**Table-1: Major Impacts of the project<sup>25</sup>**

Impacts	Components				Total
	Intake Area	Raw Water Transmission Line	Water Treatment Plant Area	Treated Water Transmission Line	
Private land to be acquired	14 acres	145.1 acres	00	22.2 acres	181.3 acres
Physical relocation	0	71	00	45	116 HH/ 510AP
Economic displacement	279	1658	335	1180	3451HH/ 16,218 APs
Structure loss	0	115,473sq2	00	66,312sq2	181785q2
Common Property loss	0	1	0	5	6 properties
Business loss	0	11	0	133	144 entities
Wage loss	0	72	0	155	227/999APs
Crop & fish harvest loss	1682	3998	3258	2443	11,381 harvest
Trees loss	0	483	7	55	545 trees
Share cropper loss	18	84	0	58	160/704APs
Agriculture labor loss	200	900	100	400	1600 labors
Lease loss	0	32	16	31	79HH/348APs

<sup>1</sup> These data need to be further confirmed by joint verification survey during project implementation.

## 1. Objectives of External Monitoring and Evaluation

7. In order to implement the RP properly, monitoring by an external monitoring agency has been considered effective. Through external monitoring activities, the executing agency can help in ensuring RP implementation activity efficiently. It may also identify bottlenecks and amend/improve the RP implementation procedure or payment modality through executive order, if found necessary. The major objectives of engaging the EMA will be to:

- Assess the overall approach of resettlement activities in the project area;
- Verify results of internal monitoring;
- Assess whether resettlement objectives have been met; specifically, whether livelihoods and living standards have been restored or enhanced;
- Assess resettlement efficiency, effectiveness, impact and sustainability drawing lessons as a guide to future resettlement policy making and planning; and
- Ascertain whether the resettlement entitlements were appropriate in meeting the objectives, and whether the objectives were suited to DP conditions.

<sup>25</sup> These data need to be further confirmed by joint verification survey during project implementation.

## 2. Scope of Work - Specific Tasks

8. The EMA will set up a set of baseline indicators reviewing available data and or collecting primary data for monitoring and evaluation, building upon the Projects' own record keeping system. It may also include maps, charts, photographs or affected property, copies of contracts and land titles, payments, and valuation documents relating to resettlement. Specific tasks of the monitoring agency are:

- Establish detail monitoring and evaluation plans and affected people's data base to assess progress in meeting key targets in the Resettlement Plan: budget and time frame, delivery of DP entitlements, consultation, grievance and special issues and benefits.
- Conduct regular reviews, based on internal monitoring and evaluation reports, involving key stakeholders including DP representatives. Reach consensus on actions required to improve resettlement performance and implement them.
- Establish monitoring and evaluation reporting methods and reporting requirements.
- Involve DPs, hosts, IA and community in Project monitoring and evaluation using appropriate methods.
- Undertake an ex-post evaluation of resettlement after completion of the Project.
- Review lessons learned for resettlement policy making and planning.
- Recommend and prepare, as required, corrective action plans for any safeguards compliance identified during the monitoring and evaluation periods.
- In addition, the appointed external monitoring agency should perform the following activities
- Monitor the authenticity of the data and the approach for generation of those.
- Review justification for changes in RP policy and budget.
- Verify progress and achievement of implementing agency and devise formats for estimating various indicators responsible for achievement of progress.

## 3. Monitoring indicators and Required Information

9. The EMA will be provided the below information by the PMU-SIU staff and the NGOs assisting the implementation of the resettlement plans. The basic information required for external monitoring are as follows:

- 1) Basic information on DP households
  - i) Location
  - ii) Composition and structure, ages, educational and skill levels
  - iii) Gender of household head
  - iv) Access to health, education, utilities and other social services
  - v) Housing type
  - vi) Land and other resource owning and using patterns
  - vii) Occupations and employment patterns
  - viii) Income sources and levels
  - ix) Agricultural production data
  - x) Participation in neighborhood or community groups
  - xi) Value of all assets forming entitlements and resettlement entitlements
- 2) DP's Economic and livelihood restoration
  - i) Cost of compensation and entitlements
  - ii) Existing livelihood/economic activities
  - iii) Options of livelihood/income generation activities (tasks the recruited NGO)
  - iv) Adoption of housing options developed, if any
  - v) Replacement of key social and cultural elements

- 3) Final RP
- 4) PMU internal monitoring reports on RP implementation and other relevant documents (as required).

10. Below are some monitoring indicators, but not limited, to be used by the EMA during monitoring and evaluation

- 1) Restoration of livelihoods
  - i) Cost of compensation and entitlements
  - ii) Degree of sufficiency of the compensation and entitlements as detailed in the RP (against the impacts)
  - iii) Availability of replacement/ alternative land
  - iv) Degree of sufficiency of transfer and relocation grants to cover the costs incurred
  - v) Degree of sufficiency of income substitution allowances
  - vi) Degree of sufficiency of assistance for re-establishment of business enterprises
  - vii) Degree of sufficiency of assistance for re-establishment of CPRs
  - viii) Income earning opportunities provided to the vulnerable DPs and their adequacy
  - ix) Degree of sufficiency of the jobs provided to the DPs to restore pre-Project income level
- 2) Levels of DP satisfaction
  - i) Level of consultations and knowledge about resettlement procedures and the entitlements
  - ii) Knowledge base on fulfillment of these provisions
  - iii) DP assessment on restoration of living standards and livelihoods
  - iv) Knowledge on GRC mechanism and conflict resolution procedure
- 3) Effectiveness of Resettlement Planning
  - i) Assistance provided to land loser DP
  - ii) Sufficiency of time and budget to meet objectives of the RP
  - iii) Degree of generosity of the entitlements
  - iv) Identification of vulnerable groups
  - v) Dealing with unforeseen problems by RP implementers
- 4) Other Impacts
  - i) Unintended social impacts
  - ii) Unintended impacts on employment, incomes or other social issues
  - i)

#### **4. Approach and Methodology**

##### **(i) General Approach**

11. Appropriate method will be used to collect field level information in order to review and compare the Socio-economic condition of DPs "before" and "after" resettlement program. Collected information on the key indicators of resettlement progress, efficiency, effectiveness, impact and sustainability will be analyzed. The monitoring and evaluation consultant will also conduct at least one ex-post evaluation Survey to assess the achievement of resettlement objectives, the changes in living standards and livelihoods and the restoration of the economic and social base of the DPs.

##### **(ii) Detailed Methodology**

12. The external monitor will use existing baseline census and survey data with their periodic updates. No later than one month after the appointment by Dhaka WASA, the EMA



specialist/ consultant must prepare and submit to Dhaka WASA and ADB the detail plan and methodology for their monitoring activities.

The external monitoring agency will perform its activity in the following methods:

- i. Review pre-project baseline data on income and expenditure, occupational and livelihood patterns, leadership, community organizations and cultural parameters.
- ii. Identify an appropriate set of indicators for gathering and analyzing information on resettlement/rehabilitation impacts; the indicators shall include but not limited to issues like relocation of affected people, delivery of entitlement, and level of satisfaction by the beneficiaries of the programs.
- iii. Review result of internal monitoring and verify claims through random checking at the field level to assess whether resettlement/ rehabilitation objectives have been generally met. Involve the DPs and community groups in assessing the impact of resettlement programs for monitoring and evaluation purposes.
- iv. Conduct both individuals and community level impact analysis through the use of formal and informal surveys, key informant interviewers, focus group discussions, community public meetings, and in-depth case studies of DPs/women from the various social classes to assess the impact of RP implementation.
- v. The types of DP and numbers to be covered in the monitoring activities:
  - a. 100% of vulnerable households
  - b. 60% of the total severely affected households (physically displaced, land-based HH that required occupational changes)
  - c. 30% of the total small and medium affected businesses
  - d. 30% of the DPs losing agricultural lands in the transmission mains area

## **5. Methodology for Participatory Rapid Appraisal**

13. The affected and host people should be involved in the monitoring and evaluation process to solve day-to-day problems arising during resettlement operations. DPs, local CBOs, and/or local NGOs should be involved in the process. The key players should be involved in the evaluation design and implementation. Participatory Rapid Appraisal (PRA) techniques should be undertaken to foster the involvement of DPs and other key stakeholders in resettlement monitoring and implementation. The methodology of the PRA should be as follows:

- i) Key informant interviews: select local leaders, community workers or persons with special knowledge or experience about resettlement activities and implementation.
- ii) Focus group discussion: specific topics (e.g. land compensation payments, services at resettlement sites, income restoration, and gender issues)
- iii) Field observations on status of resettlement implementation, plus individual or groups interviews for cross-checking purposes.
- iv) Informal surveys/interviews: informal surveys of DPs, community workers, resettlement staff, and implementing agency personnel using non-sampled methods.

## **6. Required Resources**

14. The tasks require personal with long experience in the field of resettlement planning, implementation and monitoring. The expert should have sufficient technical and professional skill in dealing with involuntary resettlement as per ADB requirements. The person should also have sound knowledge, background, skills and credibility in writing monitoring reports in language and quality acceptable to ADB and other international donors or financiers.

**7. Criteria for selection of EMA**

15. The expert must be able to present appropriate evidence to verify his/her satisfactory performance in resettlement planning, implementation, monitoring and evaluation and preparation of analytical/evaluation reports meeting the standards of the external financiers.

**8. Staffing for the Tasks**

16. The expert must be able to present evidence of his/her skill and sufficient qualified, experienced and trained manpower to mobilize to the field to collect data according to the requirements. In order to carry out the tasks stipulated in this Terms of Reference, the field level input should be limited as shown in Table 2. The expert should show the duration of their services and limit as per requirement in consultation with the civil works contact. However, the mobilization is based on field requirement only.

**Table 2 Staffing for Monitoring**

<b>Position</b>	<b>Nos. Unit</b>	<b>Estimated no. of man months</b>
<b>Resettlement monitoring specialist</b>	<b>1</b>	<b>16</b>
<b>Data Collector/Data Processor</b>	<b>4</b>	<b>84</b>
<b>Total</b>	<b>05</b>	<b>100</b>

**9. Stakeholders and their Responsibility**

**(i) Responsibility of Executing Agency**

17. The DWASA through its Project Management Unit (PMU) and the Safeguard Implementation Unit (SIU) will ensure timely supply of background references, data to the EMA. It will ensure uninterrupted access to work sites, relevant offices of the GOB and DWASA in particular. The EMA will sit in quarterly coordination meetings with the DWASA in presence of the supervision consultants, which DWASA should organize at PMU or SIU level as appropriate.

18. Recommendation based on the result of the monitoring should be offered to DWASA to cover up the deficiencies identified by the external monitor. The DWASA will accept the recommendations of the external monitor if it is within the scope of work and there is nothing incorrect in the report.

**(ii) Responsibility of Supervision Consultant**

19. The supervision consultant (SC) will provide appropriate protocol at site or at its Project Office for the mission of the EMA. It will, on behalf of the EA, ensure free access to work sites, impact areas and the database on resettlement and civil works. The SC will ensure timely intimation of its civil works planning as and when made or updated during the construction period and Keep the EMA informed..

**(iii) Responsibility of NGO assisting RP Implementation**

20. The NGO(s) assisting the RP implementation will assist and cooperate with the EMA through providing free access to its database and the automated management information

system (MIS). It will provide copies of the progress reports and other reports as requested by the EMA. The NGOs may have to carry out surveys as well for fulfillment of the requirements of the external monitoring.

**(iv) Asian Development Bank (ADB)**

21. The ADB will review the activities of the external monitor in light of the Safeguard Policy Statement (SPS) 2009 of ADB. The ADB will ensure timely response from the EA on queries and recommendations from the external monitor.

**10. Time Frame**

22. The independent monitor will be employed for the period of 42 months starting from August 2014 until December 2017 with intermittent inputs of total 16 months over the project period.

**11. Reporting Requirement**

23. Semi annual monitoring report should be submitted to the DWASA and simultaneously to the ADB. An evaluation report at the end of the Project should be submitted to the DWASA and concerned parties with critical analysis of the achievement of the program and performance of the EA. The EMA will report to DWASA and ADB based on some agreed upon formats developed in consultation with the DWASA and ADB.

**12. Budget and Logistics**

24. The budget will include all expenses such as staff salary, training, computer/software, transport, field expenses and other logistics necessary for resettlement monitoring. The budget contains a workshop to be conducted together with the supervision consultant to disseminate and discuss the Project experience of implementation of resettlement action plan of the subproject. Additional expense claims whatsoever outside the proposed and negotiated budget will not be entertained. VAT, Income Tax and other charges admissible will be deducted at source as per GOB rule.

## APPENDIX D: SAMPLE PROJECT LEAFLET FOR SOCIAL SAFEGUARDS

### A. Background

1. Dhaka, the capital of Bangladesh is facing shortage water supply and demand is increasing day by day. With financial assistance from ADB, AFD and EIB, Dhaka WASA is preparing Dhaka Environmentally Sustainable Water Supply Project (DESWSP) to supply treated surface water, collected from the river Meghna, to Dhaka city dwellers through the construction of Gandharbpur Water Treatment Plant (GWTP). The project also includes distribution reinforcement and network improvements to reduce non-revenue water (NRW) for safe water and support to low income communities (LICs). This project aims to reduce abstraction of ground water amounting 500 million liter per day (MLM). The project area covers parts of Arai-hajar and Rugganj upazila of Narayanganj district and various areas of Dhaka district.

### B. Project description

2. The main project components are: (a) water intake facility at Arai-hajar upazila; (b) Raw water transmission pipe (1 pipe with diameter about 2,200 mm) for a total length of 17.5 km from intake to Sejan juice; (c) Raw water transmission pipe (1 pipe with diameter about 2,200 mm) for a total length of 4.5 km from Sejan juice to Gandharbpur WTP; (d) WTP at Gandharbpur; (e) Treated water transmission pipe (1 pipes with diameter about 2,200 mm) for a total length of about 14.2 km from WTP to Vitara Baridhara; and (f) distribution reinforcements in Dhaka city areas of about 20-30 km.

### C. Resettlement Plan: Policy and Principles

3. A Resettlement Plan (RP) has been prepared for the project based on ADB's Safeguard Policy Statement 2009, and Government of Bangladesh (GOB) *Acquisition and Requisition of Immovable Property Ordinance 1982* (ARIPO).

### D. Involuntary Resettlement impact

4. In total 316.7 acres of land is needed to implement the Gandharbpur WTP component of the project. Out of the total 316.7 acres of land (and canal areas) required for the project, 135.4 acres (42.8%) owned by different agencies of the government, including Dhaka WASA and 181.3 acres (57.3%) are private land in different locations that have to be acquired by DWASA. In total XXX households with the total population of XXX persons will be affected permanently or temporarily from their private land or from the government land that they are currently using for their livelihood activities. In addition, XXX CBE owners, XX vendors will be affected for temporary period. XX sharecropper and XXX agriculture labors may lose their livelihood at least temporarily. XX informal land users cultivating in the Dhaka WASA land for the future Gandharbpur WTP will be affected and lose their access to the land. No land acquisition is expected to be required for the water supply distribution reinforcements. The impacts in these components will be limited to temporary disturbance during civil works.

### E. Entitlement

5. The project provides for compensation of all potential losses including potential income losses for vendors at replacement value. As required by ADB Safeguards Policy Statement (2009) the project will provide compensation and resettlement assistance for households' lost

land, business, structures and other lost assets in connection with the project. The RP approach incorporates (i) compensation for lost assets; (ii) resettlement issues; (iii) impact mitigation with special attention to the women and vulnerable groups and (iv) income generating support to the members of the physically displaced households and including them in the poverty reduction and livelihood enhancement program. A budgetary provision of USD XXXX for RP implementation is made, including provisional sums of USD XXXX for compensation of lost income and USD XXXX for additional assistance to vulnerable APs.

6. The eligible DPs for this project are (a) title owner who will lose land partial or total; (b) owners of affected houses, shops, sheds or other types of structures for residential, commercial purposes regardless to their title to the land; (c) owners of affected trees, crops, fish ponds affected by the land acquisition regardless to their titles to the land; (d) any DPs who will lose livelihood income permanent or temporary from any income generating activity affected by the project; (e) DP who will loss access to land or communal facility; (e) any formal and in formal lessee to land, shelters, shops, sharecroppers, shareholders, renters, etc. who will lose their access to land or shops/shelters due to acquisition of such assets by the project and (f) vulnerable DPs as defined by ADB safeguards policy. The people who have legal title of the affected properties will be compensated in two steps. Initially they will receive compensation according to the government policy (ARIPO) from DC office based on their legal documents. In the next step they will receive additional compensation from DWASA. On the other hand the non title holders identified through census and socioeconomic survey will receive compensation from DWASA through the resettlement assistance NGO directly.

#### **F. Institutional Arrangement**

7. DWASA has established, for the Project, a PMU headed by a PD, who will be responsible for the overall execution of the Project. The PMU will be supported with experienced NGOs for the implementation of resettlement activities which include livelihood rehabilitation. DWASA will implement the RP through setting a Safeguard Implementation (SIU) headed by DPD under the PMU. The SIU, under the overall responsibility of the PD, will undertake day-to-day activities with the appointed NGOs. The concerned Safeguards Officer at the level of AE, of SIU, appointed by PIU will be convener of the JVC (Joint verification committee) and PVAC (Property Valuation Advisory Committee). The DPD of SIU will perform as convener of GRC and RAC. The resettlement assistance NGOs will assist APs to put forth grievances and access information on opportunities for employment in project related activities, rights and entitlements and the grievance redress process, and make informed choices.

#### **G. Grievance Redress Mechanism (GRM)**

8. To resolve all project related grievances and complaints a common social and environmental grievance redress mechanism will be in place. Common and simple grievances will be sorted out at project site level by the Contractor's Resettlement Supervisor, supervision staff of PMU and project NGO within 7 days. More serious complaints will be sent to the safeguard officer at the PMU to be resolved in 14 days. Any unresolved grievances will be forwarded to the Grievance Redress Committee (GRC). Complaints and grievances which are not addressed by GRC within 30 days will be sent to the Program Steering Committee (SC) to be resolved within 7 days. Despite the project GRM, an aggrieved person shall have access to the country's legal system at any stage.

**H. Environmental Management**

9. Two initial environmental examinations (IEEs) with environmental management plans (EMPs), one for distribution networks (ICB 2.7) and one for the main WTP with associated works, were prepared as part of the feasibility study in accordance with ADB’s Safeguards Policy Statement (SPS, 2009) and Government of Bangladesh Environmental Conservation Rules (1997). The IEEs and EMPs will be updated and submitted to ADB for review and approval during detailed design, and DWASA will obtain all necessary permits and clearances from relevant government agencies, including Department of Environment. IEEs are available upon request from DWASA. These will also be made available on DWASA’s and ADB’s websites.

10. The IEEs concluded that no significant adverse environmental impacts are anticipated and any impacts will be mitigated through measures outlined in the EMP. The EMP will be incorporated into bidding and contract documents and implemented by contractors, and monitored by consultants. There are no sensitive environmental features located in the project area. Environmental management measures defined in the EMP, such as sound construction site management and regular monitoring of the project’s environmental performance will reduce these impacts to acceptable levels. DWASA also developed a sewerage master plan with two wastewater management projects where the investment funding has already been secured which will offset the incremental water supply caused by the project.

11. Consultation and public participation will continue throughout project implementation and any environmental complaints or disputes will be handled in accordance with the grievance redress mechanism developed for the project. The PMU will be supported by environmental specialists on the consultant team to assist EMP implementation and environmental monitoring and reporting activities.

12. DWASA will report progress to ADB on a semi-annual basis. ADB and DWASA will disclose all reports on respective websites.

**Contact detail for inquiry:**

Name : Designation : Project Management Unit Telephone No: E-mail: Address:	Name Designation Safeguards Implementation Unit Telephone No: E-mail: Address:
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**APPENDIX E: SAMPLE GRIEVANCE REDRESS FORM**

(To be available in Bangla)

The \_\_\_\_\_ Project welcomes complaints, suggestions, queries and comments regarding project implementation. We encourage persons with grievance to provide their name and contact information to enable us to get in touch with you for clarification and feedback. Should you choose to include your personal details but want that information to remain confidential, please inform us by writing/typing **\*(CONFIDENTIAL)\*** above your name. Thank you.

<b>Date</b>		<b>Place of registration</b>			
<b>Contact Information/Personal Details</b>					
<b>Name</b>		<b>Gender</b>	* Male * Female	<b>Age</b>	
<b>Home Address</b>					
<b>Place</b>					
<b>Phone no.</b>					
<b>E-mail</b>					
<b>Complaint/Suggestion/Comment/Question</b> Please provide the details (who, what, where and how) of your grievance below:					
If included as attachment/note/letter, please tick here:					
<b>How do you want us to reach you for feedback or update on your comment/grievance?</b>					

**FOR OFFICIAL USE ONLY**

<b>Registered by:</b> (Name of Official registering grievance)	
<b>Mode of communication:</b> Note/Letter  E-mail  Verbal/Telephonic	
<b>Reviewed by:</b> (Names/Positions of Official(s) reviewing grievance)	
<b>Action Taken:</b>	
<b>Whether Action Taken Disclosed:</b>	Yes No
<b>Means of Disclosure:</b>	

## APPENDIX F: SAMPLE MONITORING TEMPLATE AND OUTLINE OF SEMIANNUAL MONITORING REPORT

1. A semi-annual monitoring report shall be prepared on Resettlement Plan implementation and submitted to ADB by the PMU. It will include: (1) **the list of APs**, with compensation and details of compensation paid with signed receipts annexed to the report, socio-economic status and satisfaction levels of APs with the RP implementation process, compensation and mitigation measures; (2) **the list of vulnerable APs** and additional compensation / special protection measures planned/implemented for them; socio-economic status and satisfaction levels of vulnerable APs with the RP implementation process, compensation and mitigation measures; (3) **list of affected common facilities** affected, plan to restore access/ livelihood and/or actions taken to restore access to the same or facilities of equal quality elsewhere; (4) **list of roads for closure** and actions planned / taken to minimize disturbance; (5) **details of consultations held with APs** (with number of participants by gender, issues raised, conclusion / agreement reached, actions required/taken); (6) **details of grievances** registered, redressed, outstanding complaints, minutes of GRM meetings held; (7) **details of information disclosure** and awareness generation activities, levels of awareness among target population and behavior change, if any; (9) **implementation of livelihood and income restoration program** this will include the activities made, progress and numbers of affected families resettled and restored their income generating activities; (10) **describe the institutional capacity and coordination** for the implementation of the resettlement plan; (9) **any other relevant information** showing RP implementation progress, issues identified; and (10) **action plan or next target of activities** up to the next monitoring report. The following checklist may be used as a guideline for overall monitoring of RP implementation.

S. N.	Resettlement Plan Activities	Completed Y/N	Remarks
<b>A. Pre Construction Activities and Resettlement Plan Activities</b>			
1	Approval of final Resettlement Plan by ADB prior to contract award		
2	Disclosure of final Resettlement Plan on ADB and EA websites		
3	Circulation of summary RP in the three local languages to all stakeholders		
4	Establishment of GRC and other committees for the RP finalization/ implementation		
5	Recruitment/ appointment of external monitoring agency		
<b>I. Resettlement Plan Implementation</b>			
1	Grievance Redress Committee and telephone hotlines established		
2	Entitlements and grievance redress procedure disclosed		
3	Finalization of list of APs, vulnerable APs and compensation/ assistance/ allowances		
4	Finalization of list of affected common facilities and roads for closure; mitigation measures proposed		
5	Affected persons received entitlements as per amounts and program specified in RP		
6	Payment of compensation, allowances and assistance (No. of APs)		
7	Additional assistance for vulnerable households given (No. of vulnerable APs)		
8	Livelihood arrangements provided to vulnerable APs		
9	Reinstallation of affected common facilities		
10	Grievances No. of grievances registered No. of grievances redressed Outstanding complaints Disclosure of grievance redress statistics		
11	Consultation, participation and disclosure as per Plan		
12	Livelihood and income restoration activities: 1. No of families resettled 2. No of families attend the retraining program		



S. N.	Resettlement Plan Activities	Completed Y/N	Remarks
	3. No of families replaced their agricultural land 4. No of families join the micro finance program 5. No of families reconstruct the loss businesses		
<b>C. Monitoring</b>			
1	Survey on socio-economic status of APs (including vulnerable APs) completed and compared with baseline survey results		
2	Survey on satisfaction levels of APs with RP implementation completed		
<b>D. Labor</b>			
1	Implementation of all statutory provisions on labor like health, safety, welfare, sanitation, and working conditions by Contractors		
2	Equal pay for equal work for men and women		

NOTE: Where applicable, the information provided in the table should be supported by detailed explanatory report, receipts and other details.