

# Project Administration Manual

Project Number: 42266-025

Loan Number: L3413

Updated: July 2017

India: Kolkata Environmental Improvement  
Investment Program (Tranche 2)

## **ABBREVIATIONS**

ADB	=	Asian Development Bank
C&AG	=	Comptroller and Auditor General
DMA	=	district metering area
DMF	=	design and monitoring framework
DSC	=	design and supervision consultant
EIA	=	environmental impact assessment
EMP	=	environmental management plan
FMA	=	financial management assessment
GAP	=	Gender Action Plan
GIS	=	Geographic Information System
GRC	=	Grievance Redress Committee
GRM	=	Grievance Redress Mechanism
IEE	=	initial environmental examination
KEIIP	=	Kolkata Environmental Improvement Investment Program
km	=	kilometer
KMC	=	Kolkata Municipal Corporation
MFF	=	Multitranche financing facility
mm	=	millimeter
NCB	=	national competitive bidding
NGO	=	nongovernment organization
NRW	=	nonrevenue water
PAI	=	project administration instructions
PAM	=	project administration manual
PFR	=	Periodic financing request
PMU	=	program management unit
S&D	=	sewerage and drainage
SOE	=	statement of expenditure
SPS	=	Safeguard Policy Statement
SMU	=	safeguard monitoring unit
TA	=	technical assistance
TOR	=	terms of reference
UABPT	=	Unit Area Basis of Property Taxation

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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 the policies and procedures of the government and Asian Development Bank (ADB). The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The Kolkata Municipal Corporation (KMC), executing agency is wholly responsible for the implementation of ADB-financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. ADB staff is responsible for supporting implementation including compliance by these agencies of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At loan negotiations, the borrower and ADB have agreed to the PAM and ensure consistency with the loan agreement. Such agreement is 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 Management approval of the project's project financing request (PFR) report, 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.



## I. PROJECT DESCRIPTION

### A. Project's Rationale, Location and Beneficiaries

1. On 26 September 2013, the Asian Development Bank (ADB) approved loans under a multitranche financing facility (MFF) for the Kolkata Environmental Improvement Investment Program (KEIIP) for an aggregate amount not exceeding \$400 million until 31 August 2023. On 22 October 2013, ADB approved a loan under the MFF amounting to \$100 million for Project 1. The loan for Project 1 (Loan 3053-IND or Tranche 1) was signed on 3 March 2014 and made effective on 30 May 2014. Project 1 is designed to rehabilitate inefficient water supply facilities in Kolkata, including capacity restoration at two water treatment plants and nonrevenue water (NRW) management; extensions to the sewerage and drainage (S&D) network; and improvements to Kolkata Municipal Corporation's (KMC's) financial and project management capacity.

2. The executing agency is KMC, which created a program management unit (PMU) to implement the KEIIP. KMC is mandated to provide water supply and S&D services in the city of Kolkata under the KMC Act of 1980. KMC currently serves 81% of the city's population with water supply and 45% of its population with S&D.<sup>1</sup> However, NRW losses are estimated at around 50%<sup>2</sup> and water is only available for seven to eight hours per day on average. The Organization for Economic Cooperation and Development (OECD) conducted the first global assessment of port cities' exposure to climate risks in 2007, and identified Kolkata and Mumbai in India among the top 10 cities with high exposure to flooding under current climate change forecasts.<sup>3</sup> Over the last decade, KMC has prepared and adopted master plans and policies to increase its climate resilience.<sup>4</sup> Climate change adaptation measures were also assessed during preparation of KEIIP and Project 1. KEIIP is a result of these master plans, policies, and due diligence, and incorporates measures to increase Kolkata's resilience to climate change that include expansions in S&D network coverage to flood-prone areas and reductions to NRW.

3. The Government has submitted the Periodic Financing Request (PFR) for Tranche 2 of KEIIP, amounting to \$200 million, and a technical assistance (TA) grant from Urban Climate Change Resilience Trust Fund in the amount of \$1 million to strengthen Kolkata's climate resilience through improved planning and disaster risk management. The proposed Project 2, supported by the proposed Tranche 2 of the MFF and attached TA, will continue rehabilitation of water supply facilities, and improve the coverage, climate resilience, and operational sustainability of KMC's S&D and water supply services.

### B. Impact and Outcome

4. The impact of Project 2 under KEIIP will be improved access to water supply and sanitation in KMC's service areas.<sup>5</sup> The outcomes will be service quality, operational

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<sup>1</sup> Data provided by KMC from its annual report 2015.

<sup>2</sup> Nonrevenue water (NRW) losses are not known because KMC lacks domestic water supply metering. KMC's water supply department estimates NRW at an average of about 50%, but a survey conducted while preparing Project 1 estimated NRW in the Cossipore area of KMC at around 65%.

<sup>3</sup> World Bank. 2011. *Report No. 53282-IN, India: Vulnerability of Kolkata Metropolitan Area to Increased Precipitation in a Changing Climate*.

<sup>4</sup> Kolkata Municipal Corporation. 2014. *Sewerage and Drainage Masterplan for Kolkata City*, KMC, December 2007, and *Action Plan to Mitigate Flood, Cyclone & Water Logging*.

<sup>5</sup> Defined by the Investment Program. ADB. 2013. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranchise Financing Facility for India: Kolkata Environmental Improvement Investment Program*. Manila. <http://adb.org/sites/default/files/projdocs/2013/42266-013-ind-rrp.pdf>

sustainability, and climate resilience in water supply and S&D in the service areas of KMC increased.

## **C. Outputs**

5. The outputs of Project 2 will be as follows:

### **1. Output 1: Inefficient water supply assets rehabilitated**

6. This output will (i) demarcate and hydraulically isolate KMC's service area into district metering areas (DMAs) to improve equitable distribution and to reduce NRW from its current estimate of 50% to 25%; (ii) rehabilitate water supply to 31,800 households in Joka and adjoining areas that were recently incorporated into the KMC<sup>6</sup>, and (iii) reduce NRW in East Kolkata through a specialized performance-based NRW contract to supply continuous pressurized water to 44,700 households.<sup>7</sup> Performance indicators include:

- (i) NRW in KMC's service area reduced to 25%;
- (ii) 100 KMC water supply department staff trained on NRW reduction;
- (iii) Existing supervisory control and data acquisition (SCADA) upgraded and operational with data from bulk meters and pressure loggers from the DMAs and production centres;
- (iv) 16 additional customer service centres and one meter calibration and testing centre established;
- (v) Nine elevated and two ground-level service reservoirs, 28 kilometers (km) of transmission mains, and 300 km of distribution network rehabilitated; and
- (vi) At least 90,000 domestic water meters installed, monitored, and maintained.

### **2. Output 2: Sewerage and drainage network extension to peripheral areas continued**

7. This output will (i) expand S&D services in selected peripheral areas of KMC to at least additional 83,400 households, and (ii) reduce the vulnerability of the S&D network to any increase in flooding as a result of climate change. Performance indicators include:

- (i) At least 83,400 additional households connected to the S&D network;
- (ii) At least 128 km of additional sewer-drain pipes constructed; including 3 km of pipes with a diameter larger than 1,000 millimeters laid through micro-tunnelling; and
- (iii) Additional five pumping stations and 6 km of pumping mains constructed.

### **3. Output 3: Financial and project management capacity further developed**

8. This output will support KMC in implementing the policies on NRW reduction, enhancing climate resilience, achieving reforms and cost recovery of services, and implementing projects. Performance indicators include:

- (i) KMC's property tax collection efficiency ratio improved to 75%;
- (ii) KMC's Water Loss Policy Roadmap implemented;
- (iii) An early warning system for flood risk management designed, installed, and implemented for KMC, and at least 20 staff trained on its usage;

<sup>6</sup> Residents in these areas currently only receive 49 liters per person and 4 hours' supply on average per day.

<sup>7</sup> As estimated by the PMU of KEIP in May 2016.



- (iv) KMC's capacity development on climate resilient infrastructure and land use planning, and disaster management, completed;
- (v) KMC's land use maps updated to incorporate climate change principles; and
- (vi) An additional 50 training sessions conducted with PMU staff on project implementation, sector best practices, and ADB's policies and procedures.

## II. IMPLEMENTATION PLANS

### A. Project Readiness Activities

**Table 1: Project Readiness Activities**

Milestones	Responsible Agency	2016											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	
Advance actions													
<ul style="list-style-type: none"><li>All detailed design completed</li></ul>	PMU, KMC												
<ul style="list-style-type: none"><li>Tendering of around 50% of works packages</li></ul>	PMU, KMC												
<ul style="list-style-type: none"><li>Contract award of around 50% of works packages</li></ul>													
<ul style="list-style-type: none"><li>Tendering of all remaining works packages</li></ul>	PMU, KMC												
<ul style="list-style-type: none"><li>Contract award of all remaining works packages</li></ul>													
ADB loan fact finding mission fielding	ADB	X											
Loan negotiations	ADB, DEA, GoWB												
ADB Management approval	ADB												
Signing of Loan agreement	ADB, DEA, GoWB												
Government legal opinion provided	ADB, DEA, GoWB												
<sup>8</sup> Government budget inclusion	GoWB, KMC	X											
Loan effectiveness	ADB, DEA												

ADB = Asian Development Bank, DEA = Department of External Affairs, GoWB = Government of West Bengal, KMC = Kolkata Municipal Corporation, PMU = program management unit.

Source: Asian Development Bank.

## B. Overall Project Implementation Plan

**Table 2: Overall Project Implementation Plan**

Outputs (paraphrased) and Activities	2015	2016	2017	2018	2019	2020	2021	2022
<b>1. Inefficient water supply assets rehabilitated</b>								
1.1 Demarcate and hydraulically isolate the DMAs in KMC								
1.2 Upgrade water supply services in Joka and its adjoining areas								
1.3 Implement nonrevenue water reduction measures in East Kolkata								
1.4 Train WLM unit and KMC through on-the-job training.								
1.5 Install around 240 bulk meters and 90,000 consumer meters								
1.6 Establish the new customer centres, and the meter calibration and testing laboratory								
<b>2. Sewerage and drainage extension peripheral areas continued.</b>								
2.1 Construct sewerage and drainage network and two pumping stations in borough XI								
2.2 Construct sewage network and three pumping stations in borough XIII and XVI								
2.3 Construct sewage network and one pumping station in borough XIII and XVI								
2.4 Construct sewage network in borough XIV								
2.5 Construct one pumping station in borough I								
2.6 Provide house connections								
<b>3. Financial and project management capacity further developed.</b>								
3.1 Develop capacity of KMC on climate resilient planning and disaster management, update land use maps, and install early flood warning system for KMC								
3.2 Training and capacity building of PMU								
3.3 Engage project management, design and supervision consultants								
3.4 Disclose project information to public								

■ = activities/works and commissioning/operations

ADB = Asian Development Bank, DMA = district metering areas, KMC = Kolkata Municipal Corporation, NRW = nonrevenue water, PMU = program and project management unit, WLM = water loss management.

### III. PROJECT MANAGEMENT ARRANGEMENTS

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

**Table 3: Project Implementation Organizations - Roles and Responsibilities**

Investment Program implementation organizations	Key Management Roles and Responsibilities
KMC	Executing agency
<b>Steering Committee</b> , comprising: <ul style="list-style-type: none"> <li>(i) Minister-in-Charge, MA Department, as the Chair;</li> <li>(ii) Mayor, KMC, as member;</li> <li>(iii) Principal Secretary, MA Department, as member;</li> <li>(iv) Chief Executive Officer, KMDA, as member;</li> <li>(v) Municipal Commissioner, KMC, as member;</li> <li>(vi) Project Director, PMU, as member-secretary; and</li> <li>(vii) Director General, WSD KMC and Director General, S&amp;DD KMC, as invitees.</li> </ul>	<b>Steering Committee</b> will <ul style="list-style-type: none"> <li>(i) Meet every 6 months to provide strategic guidance, and oversee the implementation of the investment program.</li> <li>(ii) Appoint auditors and fix their remuneration, and ensure auditing of each project account.<sup>9</sup></li> <li>(iii) Review and provide policy direction on: <ul style="list-style-type: none"> <li>(a) Implementation of the urban and institutional reform agenda;</li> <li>(b) Compliance with loan covenants under the ADB loans;</li> <li>(c) Compliance with environment and social safeguards; and</li> <li>(d) Critical implementation issues and in inter-departmental coordination.</li> </ul> </li> <li>(iv) Approve (footnote 9). <ul style="list-style-type: none"> <li>(a) Balance sheets, audit report, and other annual reports of the investment program and each project, if necessary;</li> <li>(b) Evaluation reports prepared by tender evaluation and consultant selection committees; and</li> <li>(c) Contract award and variation proposals.</li> </ul> </li> <li>(v) Consider and take decision on: <ul style="list-style-type: none"> <li>(a) Annual budget; and</li> <li>(b) Annual action plan.</li> </ul> </li> <li>(vi) Establish PMU (footnote 9).</li> <li>(vii) Delegate powers, other than those of making rules, to the project director or other authorities.</li> <li>(viii) Ensure timely release of funds to each project (footnote 9).</li> </ul>
<b>PMU</b> , comprising: <ul style="list-style-type: none"> <li>(i) Project Director;</li> <li>(ii) Contract management unit (40 staff comprising sewerage wing and water supply wing);</li> <li>(iii) Project accounts unit (12 staff);</li> <li>(iv) Safeguards Monitoring (16 staff);</li> <li>(v) WLM unit (9 staff); and</li> <li>(vi) Utility finance improvement unit (6 staff).</li> </ul>	<b>PMU</b> will: <ul style="list-style-type: none"> <li>(i) Liaise and correspond with ADB on all issues related to the investment program and each project.</li> <li>(ii) Coordinate with: <ul style="list-style-type: none"> <li>(a) National and state agencies to resolve any inter-departmental issues; and</li> <li>(b) Other aide agencies for implementation of non-physical investment activities.</li> </ul> </li> <li>(iii) Prepare and submit: <ul style="list-style-type: none"> <li>(a) Reports to the Steering Committees for consideration and approval;</li> <li>(b) Periodic progress reports on each investment activities; and</li> <li>(c) Reports mandated under the loan and</li> </ul> </li> </ul>

<sup>9</sup> These activities are governed under the KMC Act, 1980 and will be executed in accordance with the provisions under the said Act.

Investment Program implementation organizations	Key Management Roles and Responsibilities
	<p>project agreements.</p> <ul style="list-style-type: none"> <li>(iv) Approve: <ul style="list-style-type: none"> <li>(a) Detailed engineering design; and</li> <li>(b) Training and capacity building program.</li> </ul> </li> <li>(v) Facilitate collection of data for detailed engineering design.</li> <li>(vi) Procure works, goods, and consultancy services for implementation of each project.</li> <li>(vii) Manage PMCs, DSCs, contractors, and suppliers as an employer.</li> <li>(viii) Implement: <ul style="list-style-type: none"> <li>(a) Resettlement plans; and</li> <li>(b) Environmental management plan.</li> </ul> </li> <li>(ix) Plan, implement, and monitor: <ul style="list-style-type: none"> <li>(a) Public relations activities;</li> <li>(b) Gender mainstreaming initiatives;</li> <li>(c) Community participation activities; and</li> <li>(d) Safeguard compliance activities.</li> </ul> </li> <li>(x) Maintain each project account and submit consolidated monthly reports.</li> <li>(xi) Obtain statutory clearances.</li> <li>(xii) Coordinate for obtaining right of way clearances with related state and national agencies.</li> <li>(xiii) Make payments.</li> <li>(xiv) Disbursement application to ADB.</li> <li>(xv) Safeguards plans and corrective action plans consistent with safeguard frameworks.</li> <li>(xvi) Submit reports of external auditor to the Steering Committee.</li> <li>(xvii) Monitor physical and non-physical investment activities under each project.</li> <li>(xviii) Monitor implementation of safeguards plans, guide PIU, as and when necessary, and prepare reports.</li> <li>(xix) Disseminate information related to the investment program and each project to the public and media.</li> <li>(xx) Establish and maintain PPMS at each subproject level, as well as a project and investment program levels.</li> </ul>
<p><b>Special Committee for WLM</b>, comprising:</p> <ul style="list-style-type: none"> <li>(i) Project Director, PMU, as chair</li> <li>(ii) Director General (Water Supply), KMC as member;</li> <li>(iii) Director General (Project), PMU as member;</li> <li>(iv) Team leader, DSC as member;</li> <li>(v) Team leader, PMC as member;</li> <li>(vi) Water Loss Contractors' representative; and</li> <li>(vii) Head of the WLM unit as convener.</li> </ul>	<ul style="list-style-type: none"> <li>(i) Seek Mayor's policy decisions related to 24x7-pressured water supply in pilot areas.</li> <li>(ii) Implement the Mayor's policy decisions on 24x7-pressured water supply in pilot areas in collaboration with KMC departments.</li> <li>(iii) Endorse annual program on repair works proposed by WLM contractor.</li> <li>(iv) Endorse technical solutions proposed by WLM contractor.</li> <li>(v) Endorse the measured performance of WLM contractors for performance-based payment.</li> </ul>

ADB = Asian Development Bank, DSC = design and supervision consultants, KMC = Kolkata Municipal Corporation, KMDA = Kolkata Metropolitan Development Authority, MA = Municipal Affairs, PIU = project implementation unit, PMC = program management consultants, PMU = program and project management unit, PPMS = project performance monitoring system, PPTA = project preparatory technical assistance, WLM = water loss management, S&DD = Sewerage & Drainage Department, WSD = Water Supply Department.

**Table 4: Project Implementation Committees – Roles and Responsibilities**

<b>Investment program implementation Committees</b>	<b>Key Management Roles and Responsibilities</b>
<b>Consultant Selection Committee</b> comprising of: (i) Project Director, PMU, Chair; (ii) Deputy Municipal Commissioner (Finance), PMU; (iii) Director General (Projects), PMU; and (iv) One representative of KMC as nominated by the Municipal Commissioner of KMC.	(i) Open EOIs and proposals (ii) Evaluate EOIs and proposals (iii) Prepare evaluation reports (iv) Submit recommendation to KMC
<b>Tender Evaluation Committee</b> comprising of: (i) Project Director, PMU, Chair; (ii) Director General (Projects), PMU; (iii) Deputy Municipal Commissioner (Finance), PMU; (iv) Administrative Officer, PMU; (v) Representative of PMC; and (vi) Representative of DSC.	(i) Open tender (ii) Evaluate bids (iii) Prepare evaluation reports (iv) Submit recommendation to KMC

CMU = construction management unit, DSC = design and supervision consultant, EOI = expression of interest, KMC = Kolkata Municipal Corporation, PMC = project management consultant, PMU = program and project management unit.

## **B. Key Persons Involved in Implementation**

### **Executing Agency**

Kolkata Municipal Corporation

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### **ADB**

South Asia Department  
 Urban Development and Water  
 Division

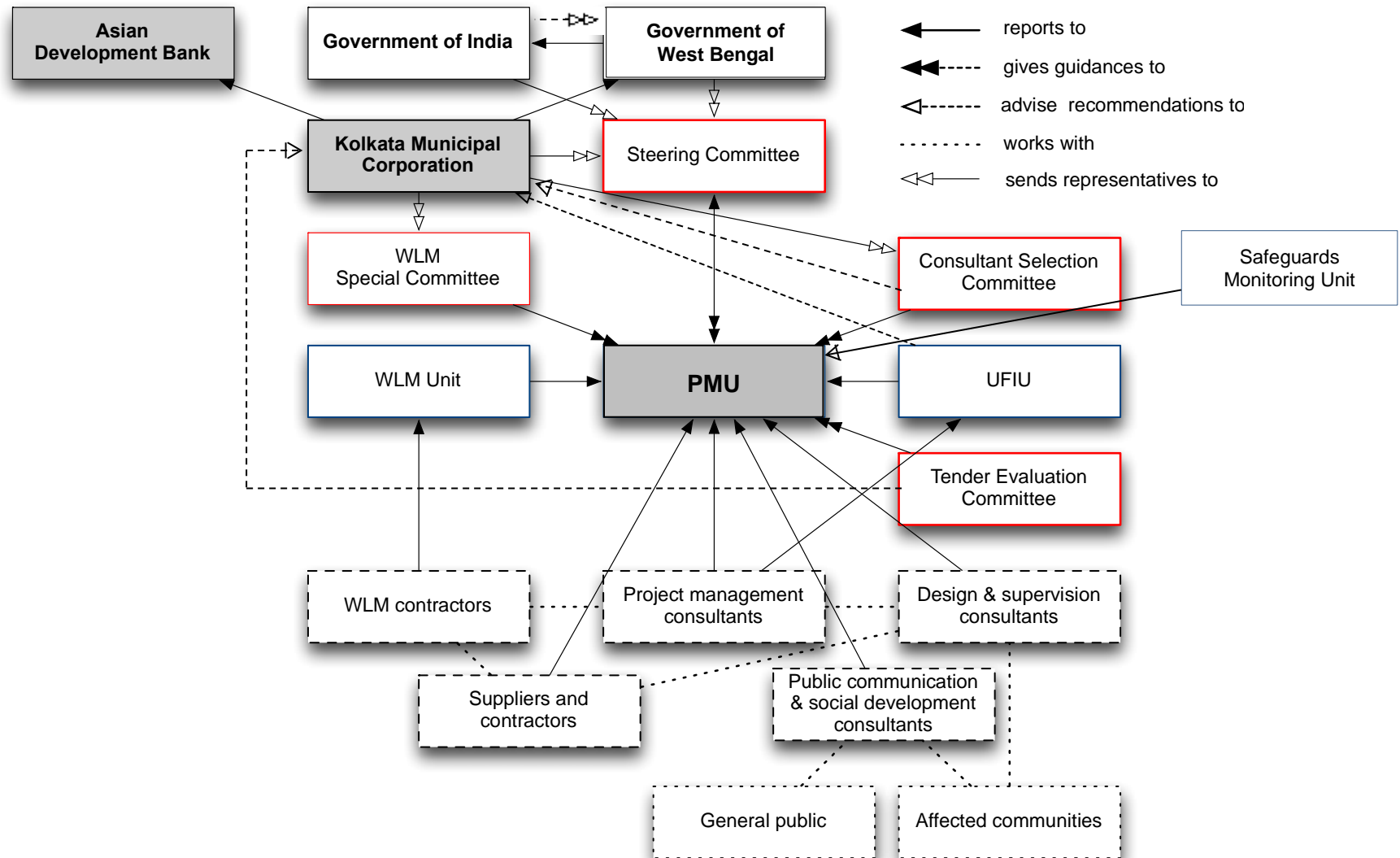
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### C. Project Organization Structure

**Figure 1: Project Organization Structure**



PMU= program and project management unit, UFIU = utility finance improvement unit, WLM = water loss management.

#### IV. COSTS AND FINANCING

9. Project 2 is expected to cost \$ 286 million, and its investment plan is shown in Table 5.

**Table 5: Project 2 Investment Plan  
(in \$ million)**

Item	Amount <sup>a</sup>
<b>A. Base Cost<sup>b</sup></b>	
1. Inefficient water supply assets rehabilitated	113.78
2. Sewerage and drainage network extension to peripheral areas continued	128.25
3. Financial management and project management capacity further developed	12.54
<b>Subtotal (A)</b>	<b>254.57</b>
<b>B. Contingencies<sup>c</sup></b>	<b>20.26</b>
<b>C. Financing Charges During Implementation<sup>d</sup></b>	<b>11.17</b>
<b>Total (A+B+C)</b>	<b>286.00</b>

<sup>a</sup> Includes taxes and duties of \$8.01 million to be financed from government sources in cash.

<sup>b</sup> In end-2015 prices.

<sup>c</sup> Physical contingencies computed at 3%. Price contingencies computed at an average of 1.5% on foreign exchange costs and 5.5% on local currency costs in line with escalation rates published by ADB at <https://lnadbg1.adb.org/erd0004p.nsf/>; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

<sup>d</sup> Includes interest and commitment charges. Interest during construction for ADB loan has been computed at the 5-year fixed USD swap rate plus a spread of 50 bps effective contractual spread. Commitment charges for the ADB OCR loan are 0.15% per year to be charged on the undisbursed loan amount.

Source: Asian Development Bank estimates

#### A. Cost Estimates Preparation and Revisions

10. The cost estimates have been prepared by ADB consultants and staff, based on information provided by KEIIP PMU, in particular the detailed project report and the draft procurement plan. The cost estimate model has been prepared using Microsoft Excel, is available with the project team and KEIIP. Cost Estimates shall be further revised during implementation by the Finance Advisor and his team at the KEIIP PMU.

#### B. Key Assumptions

11. The following key assumptions underpin the cost estimates and financing plan:
- (i) Exchange rate: 65.55 = \$1.00 (as of January 2016)
  - (ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows:

**Table 6: Escalation Rates for Price Contingency Calculation (in %)**

Item	2016	2017	2018	2019	2020	Average
Foreign rate of price inflation	1.5%	1.4%	1.5%	1.5%	1.5%	1.5%
Domestic rate of price inflation	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%

Source(s): Asian Development Bank estimates

- (iii) In-kind contributions cannot be easily measured and have not been quantified.

### C. Financing Plan

12. The government submitted a PFR requesting a loan of \$200 million from ADB's ordinary capital resources to help finance Project 2. The loan will have a 20 year term, including a 5 year grace period, an annual interest rate determined following ADB's London interbank offered rate-based lending facility, a commitment charge of 0.15% per year, and such other terms and conditions as set forth in the loan and project agreements.<sup>10</sup> The financing plan is in Table 7. The ADB loan will partly finance civil works, equipment, goods, consulting services, capacity building, and project administration costs. The government has provided ADB with (i) reasons for its decision to borrow under ADB's London interbank offered rate-based lending facility based on the terms and conditions, and (ii) an undertaking that the choice was its own decision and not made based on any communication or advice from ADB.<sup>11</sup>

**Table 7: Project 2 Financing Plan**

<b>Source</b>	<b>Amount (\$ million)</b>	<b>Share of Total (%)</b>
Asian Development Bank		
Ordinary Capital Resources <sup>a</sup>	200.0	70.00
Government	86.0	30.00
<b>Total</b>	<b>286.0</b>	<b>100.00</b>

<sup>a</sup> Climate financing is tracked as \$56.47 million including (i) \$54.41 million for NRW reduction, and (iii) \$2.07 million for capacity development. See Appendix 6 for more details.

Source: Asian Development Bank estimates

<sup>10</sup> Will follow the straight line method of repayment. The average maturity is 12.75 years, and the maturity premium payable to ADB is 0.0% per annum.

<sup>11</sup> Financing includes minor taxes on training costs to simplify disbursement arrangements. The estimated expenditure is not excessive and will apply only with respect to ADB-financed expenditures.



**D. Detailed Cost Estimates by Expenditure Category**

**Table 8: Detailed Cost Estimates by Expenditure Category**  
(in \$ million)

Item	Foreign Exchange	Local Currency	Total Gross Cost	Total Net Cost	Tax	% of Total Base Cost
<b>A. Investment Costs</b>						
1. Land	0.00	1.12	1.12	1.12	-	0.44%
2. Civil works	0.10	181.19	181.29	175.98	5.31	71.21%
3. Equipment, Vehicle and Furniture	0.00	13.84	13.84	13.47	0.37	5.44%
4. Goods	0.00	36.88	36.88	35.81	1.07	14.49%
5. Others (research, surveys and performance based O&M)	2.21	6.19	8.40	8.22	0.18	3.30%
6. Resettlement Costs	0.00	0.50	0.50	0.50	0	0.20%
<b>Subtotal (A)</b>	<b>2.31</b>	<b>239.72</b>	<b>242.03</b>	<b>235.10</b>	<b>6.93</b>	<b>95.07%</b>
<b>B. Recurrent Costs</b>						
1. Consultants						
a. Project management and design supervision	0.00	7.01	7.01	6.12	0.89	2.75%
b. Capacity development		0.10	0.10	0.10	0	0.04%
2. Incremental Recurrent Costs	0.00	5.43	5.43	5.43	0	2.13%
<b>Subtotal (B)</b>	<b>0.00</b>	<b>12.54</b>	<b>12.54</b>	<b>11.65</b>	<b>0.89</b>	<b>4.93%</b>
<b>Total Base Cost</b>	<b>2.31</b>	<b>252.26</b>	<b>254.57</b>	<b>246.75</b>	<b>7.82</b>	<b>100%</b>
<b>C. Contingencies</b>						
1. Physical	0.04	6.51	6.55	6.36	0.19	2.57%
2. Price	0.00	13.72	13.72	13.72	0	5.39%
<b>Subtotal (C)</b>	<b>0.04</b>	<b>20.23</b>	<b>20.26</b>	<b>20.08</b>	<b>0.19</b>	<b>7.96%</b>
<b>D. Financial Charges During Implementation</b>						
1. Interest during construction	10.09	0.00	10.09	10.09	0	3.96%
2. Commitment charges	1.08	0.00	1.08	1.08	0	0.42%
<b>Subtotal (D)</b>	<b>11.17</b>	<b>0.00</b>	<b>11.17</b>	<b>11.17</b>		<b>4.39%</b>
<b>Total Project Cost (A+B+C+D)</b>	<b>13.52</b>	<b>272.49</b>	<b>286.00</b>	<b>277.99</b>	<b>8.01</b>	<b>112.35%</b>

Notes: Numbers may not sum precisely because of rounding.

Source(s): Asian Development Bank Estimates

**E. Allocation and Withdrawal of Loan Proceeds****Table 9: Allocation and Withdrawal of Loan Proceeds<sup>12</sup>**  
(in \$ million)

<b>No.</b>	<b>Item</b>	<b>Total Amount Allocated for ADB Financing (OCR) Category</b>	<b>Basis for Withdrawal from the Loan Account</b>
1	Civil Works, Goods and Others	167.21	74% of total expenditure claimed
2	Equipment and Furniture	13.45	97% of total expenditure claimed
3	Consultancy Services and Capacity Building	6.12	87% of total expenditure claimed
4	Trainings and Workshops	0.1	100% of total expenditure claimed
4	Project Management – Recurrent Costs	1.00	18% of total expenditure claimed
5	Unallocated	12.12	
	<b>Total</b>	<b>200.00</b>	

<sup>12</sup> Financing includes minor taxes on training costs to simplify disbursement arrangements. The estimated expenditure is not excessive and will apply only with respect to ADB-financed expenditures.

## F. Detailed Cost Estimates by Financier

**Table 10: Detailed Cost Estimates by Financier**  
(in \$ million)

Item	ADB OCR			GoWB and KMC			Total	
	Total Amount	%	ADB's Climate Finance <sup>13</sup>	Amount	Taxes	Total	%	Amount
<b>A. Investment Costs</b>								
1. Land	-	0%	-	1.12	-	1.12	100%	1.12
2. Civil works	133.77	74%	33.49	42.21	5.31	47.52	26%	181.29
2. Equipment, Vehicles and Furniture	13.45	97%	13.43	0.02	0.37	0.39	3%	13.84
3. Goods	27.20	74%	3.78	8.61	1.07	9.68	26%	36.88
4. Others (research, surveys and performance based O&M)	6.24	74%	3.71	1.98	0.18	2.16	26%	8.40
6. Resettlement	-	0%	-	0.50	-	0.50	100%	0.50
<b>Subtotal (A)</b>	<b>180.66</b>	<b>75%</b>	<b>54.41</b>	<b>54.44</b>	<b>6.93</b>	<b>61.37</b>	<b>25%</b>	<b>242.03</b>
<b>B. Recurrent Costs</b>								
1. Consultancy Costs								
a. Project Management and Design Supervision	6.12	87%	2.07	-	0.89	0.89	13%	7.01
2. Training and Workshops	0.10	100%	-	-	-	-	0%	0.10
3. Incremental Recurrent Costs	1.00	18%	-	4.43	-	4.43	82%	5.43
<b>Subtotal (B)</b>	<b>7.22</b>	<b>58%</b>		<b>4.43</b>	<b>0.89</b>	<b>5.32</b>	<b>42%</b>	<b>12.54</b>
<b>Total Base Cost</b>	<b>187.88</b>	<b>74%</b>	<b>56.47</b>	<b>58.87</b>	<b>7.82</b>	<b>66.69</b>	<b>26%</b>	<b>254.57</b>
<b>C. Contingencies</b>								
1. Physical Contingency	4.92	75%	-	1.44	0.19	1.63	25%	6.55
2. Price Contingency	7.20	76%	-	6.52	-	6.52	48%	13.72
<b>Subtotal (C)</b>	<b>12.12</b>	<b>76%</b>		<b>7.96</b>	<b>0.19</b>	<b>8.15</b>	<b>40%</b>	<b>20.26</b>
<b>D. Financing Charges During Implementation</b>								
1. Interest during Construction (IDC)	-	0%	-	10.09	-	10.09	100%	10.09
2. Commitment Charges	-	0%	-	1.08	-	1.08	100%	1.08
<b>Subtotal (D)</b>	<b>-</b>	<b>0%</b>		<b>11.17</b>	<b>-</b>	<b>11.17</b>	<b>100%</b>	<b>11.17</b>
<b>Total Project Cost (A+B+C+D)</b>	<b>200.00</b>	<b>70%</b>	<b>56.47</b>	<b>77.99</b>	<b>8.01</b>	<b>86.00</b>	<b>30%</b>	<b>286.00</b>

ADB = Asian Development Bank, GoWB = Government of West Bengal, KMC = Kolkata Municipal Corporation, O&M = operation and maintenance.

Note: Numbers may not sum precisely because of rounding.

Source(s): Asian Development Bank Estimates

<sup>13</sup> Climate financing is included in \$200 million from ADBs Ordinary Capital Resources. Please see Appendix 6 for calculations on climate financing.

# G. Detailed Cost Estimates by Outputs

**Table 11: Detailed Cost Estimates by Outputs**  
(in \$ million)

Item	Total Cost	Output 1		Output 2		Output 3	
		Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category
<b>A. Investment Cost</b>							
1 Land	1.12	-	-	1.12	100.00	-	-
2 Civil Works	181.29	82.34	45.42	98.95	54.58	-	-
3 Equipment, Vehicles, and Furniture	13.84	13.83	99.92	0.01	0.08	-	-
4 Goods	36.88	9.14	24.82	27.74	75.18	-	-
5 Others <sup>a</sup>	8.40	8.23	97.97	0.17	2.03	-	-
7 Resettlement	0.50	0.24	47.01	0.26	52.99	-	-
<b>Subtotal (A)</b>	<b>242.02</b>	<b>113.78</b>		<b>128.25</b>		-	
<b>B. Recurrent Costs <sup>b</sup></b>							
1 Project Management and Capacity Development							
a. Project Management and Design Supervision	7.01	-	-	-	-	7.01	100.00
b. Training and Workshops	0.10	-	-	-	-	0.10	100.00
2 Incremental Administrative Costs	5.43	-	-	-	-	5.43	100.00
<b>Subtotal (B)</b>	<b>12.54</b>	-		-		<b>12.54</b>	
<b>Total Base Cost (A+B)</b>	<b>254.57</b>	<b>113.78</b>	<b>44.70</b>	<b>128.25</b>	<b>50.37</b>	<b>12.54</b>	<b>4.93</b>
<b>C. Contingencies</b>							
1 Physical	6.55	3.01	45.93	3.54	54.07	-	-
2 Price	13.72	6.14	44.73	6.92	50.47	0.66	4.80
<b>Subtotal (C)</b>	<b>20.26</b>	<b>7.22</b>	<b>45.22</b>	<b>8.30</b>	<b>51.94</b>	<b>0.45</b>	<b>2.84</b>
<b>D. Financing Charges During Implementation</b>							
1 Interest during Construction	10.09	4.51	44.73	5.09	50.47	0.48	4.80
2 Commitment Charges	1.08	0.48	44.73	0.55	50.47	0.05	4.80
<b>Subtotal (D)</b>	<b>11.17</b>	<b>4.99</b>	<b>44.73</b>	<b>5.64</b>	<b>50.47</b>	<b>0.54</b>	<b>4.80</b>
<b>Total Project Cost (A+B+C+D)</b>	<b>286.00</b>	<b>127.91</b>	<b>44.73%</b>	<b>144.35</b>	<b>50.47%</b>	<b>13.74</b>	<b>4.80</b>

<sup>a</sup> Includes research, surveys and performance based operation and maintenance.

<sup>b</sup> Costs associated with Gender Action Plan and Consultation and Participation Plan implementation are included in B1 and B2.

Note: Numbers may not sum precisely because of rounding.

Source(s): Asian Development Bank Estimates

## H. Detailed Cost Estimates by Year

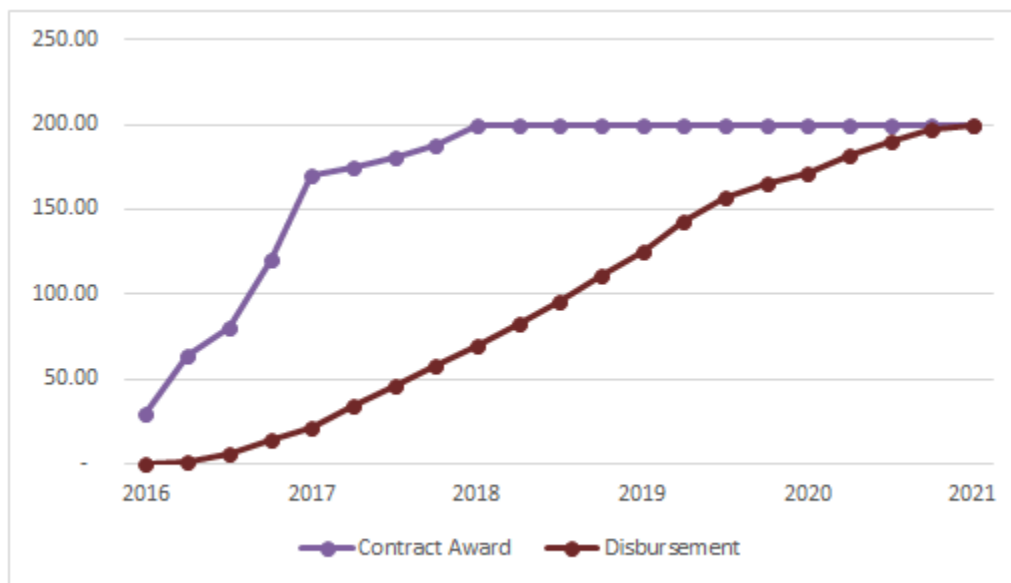
**Table 12: Detailed Cost Estimates by Year**  
(in \$ million)

Item	Total Cost	2016	2017	2018	2019	2020	2021
<b>A. Investment Costs</b>							
1 Land	1.12	1.12	-	-	-	-	-
2 Civil Works	181.29	-	18.18	44.55	51.19	41.34	26.03
3 Equipment, Vehicles, and Furniture	13.84	-	0.07	0.48	2.29	5.94	5.06
4 Goods	36.88	-	4.13	10.10	11.34	7.71	3.60
5 Others (research, surveys and O&M)	8.40	-	0.59	1.46	1.83	2.32	2.19
6 Resettlement	0.50	-	0.10	0.10	0.10	0.10	0.10
<b>Subtotal (A)</b>	<b>242.02</b>	<b>1.12</b>	<b>23.06</b>	<b>56.70</b>	<b>66.75</b>	<b>57.41</b>	<b>36.98</b>
<b>B. Recurrent Costs</b>							
1 Project Management and Capacity Development							
a. Project Management and Design Supervision	7.01	-	1.40	1.40	1.40	1.40	1.40
b. Training and Workshops	0.10	-	0.02	0.02	0.02	0.02	0.02
2 Incremental Administrative Costs	5.43	0.54	1.09	1.09	1.09	1.09	1.09
<b>Subtotal (B)</b>	<b>12.54</b>	<b>0.54</b>	<b>2.51</b>	<b>2.51</b>	<b>2.51</b>	<b>2.51</b>	<b>2.51</b>
<b>Total Base Cost</b>	<b>254.57</b>	<b>1.67</b>	<b>25.57</b>	<b>59.20</b>	<b>69.26</b>	<b>59.92</b>	<b>38.95</b>
<b>C. Contingencies</b>							
1 Physical Contingencies	6.55	-	0.63	1.55	1.82	1.56	0.99
2 Price Contingencies	13.72	-	0.59	2.29	3.51	3.99	3.34
<b>Subtotal (C)</b>	<b>20.26</b>	<b>-</b>	<b>1.22</b>	<b>3.84</b>	<b>5.33</b>	<b>5.55</b>	<b>4.33</b>
<b>D. Financing Charges During Implementation</b>							
1 Interest during Construction	10.09	-	0.22	0.92	1.99	3.06	3.88
2 Commitment Charges	1.08	0.30	0.28	0.23	0.16	0.08	0.02
<b>Subtotal (D)</b>	<b>11.17</b>	<b>0.30</b>	<b>0.50</b>	<b>1.16</b>	<b>2.15</b>	<b>3.15</b>	<b>3.91</b>
<b>Total Project Cost (A+B+C+D)</b>	<b>286.00</b>	<b>1.97</b>	<b>27.29</b>	<b>64.20</b>	<b>76.74</b>	<b>68.61</b>	<b>47.18</b>
<b>% of Total Project Cost</b>	<b>100%</b>	<b>0.69%</b>	<b>9.54%</b>	<b>22.45%</b>	<b>26.83%</b>	<b>23.99%</b>	

O&M = operation and maintenance.

Source: ADB Estimates

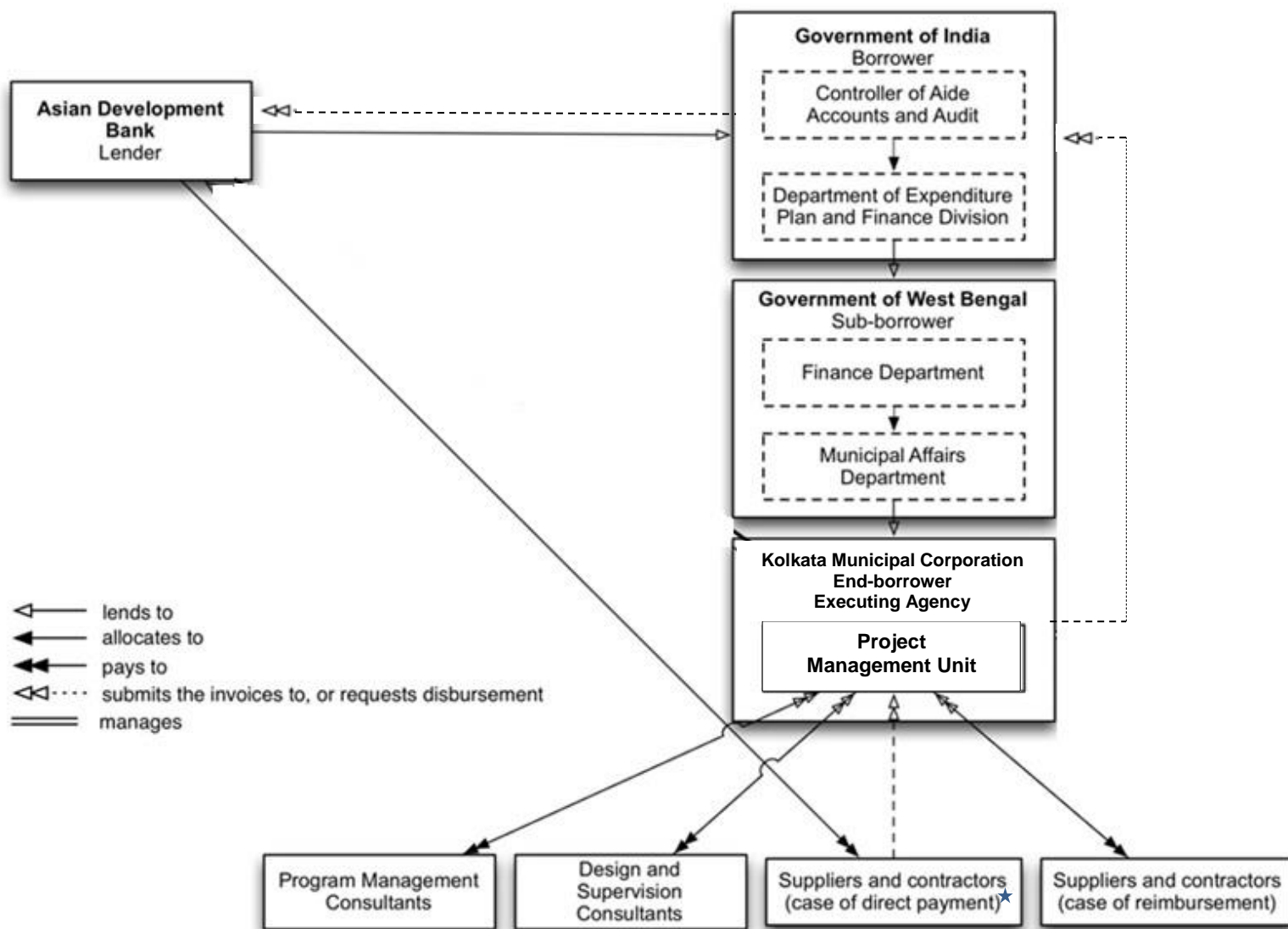
Note: Numbers may not sum precisely because of rounding.

**I. Contract and Disbursement S-Curve****Figure 2: S-Curve based on Values (ADB Portion)****Notes:**

Implementation Period: 60 months (tendering under advance action started from February 2016;  
Physical Completion Date: 31 October 2021; Loan Closing Date: 30 April 2022).

## J. Fund Flow Diagram

Figure 3: Project 2 Fund Flow Diagram



★ Subject to Borrower's approval

## V. FINANCIAL MANAGEMENT

### A. Financial Management Assessment

13. The financial management assessment (FMA) was updated in January 2016, in accordance with *ADB's Financial Management Assessment Technical Guideline Note - 2015 and Analysis of Projects and the Financial Due Diligence: A Methodology Note*. The FMA considered the capacity of the KMC as well as the PMU, including funds-flow arrangements, staffing, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements. Based on the assessment, the key financial management risks identified are (i) further integration required in the financial accounting system, (ii) minor delays in submission of the audited project financial statements, and (iii) high water losses partially due to lack of metering and volumetric tariff for domestic consumers. It is concluded that the overall pre-mitigation financial management risk of KMC is **moderate**. KMC, in particular the PMU, has agreed to implement an action plan as the key measure to address the deficiencies. The financial management action plan is provided in Table 14 below.

**Table 13: Financial Management Action Plan**

Key Risk	Risk Mitigating Activity	Timeline	Responsible Entity
Wastage of water due to fixed tariff rates	Mobilizing of the UFU in the KEIIP. KMC approved a Water Loss Policy Road Map on 11 February 2016, to be implemented during 2016-2018, outlining various measures for water loss reduction across KMC's water service areas, including establishment of a WLMU, introduction of 100% household metering, and ultimately volumetric tariff for all consumers.	2016-2018	KMC
Further integration of KMC and KEIIP accounts	Enhancement of the project financial accounting system in KEIIP	2017-2018	KEIIP
APFS not prepared in line with the C&AG Approve ToRs	Capacity building of relevant staff for the enhancement of the quality of the APFS in line with C&AG approved ToRs.	Ongoing	ADB/ KEIIP
Delay in submission of APFS to ADB	Meet the Auditor General and request the inclusion of Project 2 in their annual work plan to avoid delays	Immediately	KEIIP PMU

ADB = Asian Development Bank, APFS = audited project financial statements, C&AG= Comptroller and Auditor General, KEIIP = Kolkata Environmental Improvement Investment Program, KMC = Kolkata Municipal Corporation, PMU = program management unit, ToRs = Terms of Reference, UFU = Utility Finance Unit, WLMU = Water Loss Management Unit.

14. The FMA is based on (i) FMA questionnaire completed by the PMU and KMC staff, (ii) lessons learnt during the implementation of previous projects and Project 1 of KEIIP, and (iii) lessons from project implementation experience in the sector and India in general. The FMA questionnaire is available on request. The detailed FMA is available in Supplementary Appendix C of the PFR Report for Project 2.

15. The PMU has significant experience in implementing ADB funded projects. There were no significant issues with the withdrawal applications submitted in the past. PMU staff have an understanding of ADB's procurement and disbursement guidelines and no significant issues were raised in the audited project financial statements. KMC itself also has strong internal



control, accounting and audit mechanisms in place. It is a long established entity, which has computerized its accounting and is following the accrual system of accounting since 1978. In addition, as reported in the ADB Kolkata Environmental Improvement Project (KEIP) Completion Report for Loans 1813 and 2293,<sup>14</sup> KMC has achieved substantial improvement in its financial and accounting systems and performance under the capacity-building program financed by the Department for International Development, and has continued to improve the existing structure of municipal finance and accounting department and internal audit. As of January 2016, the KMC had presented accounts until fiscal year FY 2014-15 for audit and to the Examiner of Local Accounts of Comptroller and Auditor General (C&AG) of India. The statutory auditor issued a true and fair certificate for KMCs accounts up to FY 2013-14, which highlights primarily legacy opening balance issues. Audited project financial statements for Project 1 for the FY 2014-15 were submitted with slight delay.

16. KEIP is also generally compliant with the required financial management assurances required in the Report and Recommendation to the President<sup>15</sup> including the following: (i) periodic analysis of the flow from commissioning of each bulk flow meter; (ii) recovery of operation and maintenance charges for water supply and sewerage of over 90% , after taking into account property tax allocation and government subsidy for energy and staff costs; (iii) drafting a policy on subsidy and cost recovery; and (iv) submitting KMC's audited financial statements for the FY 2013-2014. KMC's audited financial statements for the FY 2014-2015 are undergoing audit and not yet due.

17. KMC is also in the process of introducing Unit Area Basis of Property Taxation (UABPT) through self-assessment of the property by the property owners. The UABPT was finalized after several rounds of stakeholder consultations. The KMC Act was also amended by Government of West Bengal for introduction of UABPT, and is expected to be rolled-out in the FY 2016-2017. GIS Mapping of the properties will further support property tax collection, which is planned for the FY 2016-2017. Assurance has been obtained to improve the property tax collection efficiency ratio.

18. In addition, financial management improvement initiatives for KMC are required as follows (i) full mobilizing of Utility Finance Unit, (ii) enhancement of the project financial accounting system in the PMU, and (iii) capacity building of relevant staff for enhancement of quality in line with C&AG approved terms of reference (ToRs).

19. Most importantly, the Mayors in Council of KMC approved the Water Loss Policy Roadmap in February 2016. This includes measures (i) for operationalizing the Water Loss Management Unit; (ii) metering up to household level; and (iii) GIS mapping of properties including commercial and domestic consumers, all of which will enhance financial sustainability of KMC.<sup>16</sup>

20. Based on the above, the overall financial management risk is considered **moderate**. With the ongoing actions under the reforms program of KEIP, assurances incorporated and additional mitigation measures identified for improved financial management, the financial

<sup>14</sup> ADB. 2015. Completion Report: *Kolkata Environmental Improvement Project*. Manila. <http://www.adb.org/sites/default/files/project-document/173721/29466-013-pcr.pdf>

<sup>15</sup> ADB. 2013. Report and Recommendation of the President to the Board of Directors: *Kolkata Environmental Improvement Investment Program*. Manila. <http://www.adb.org/sites/default/files/project-document/78962/42266-013-ind-rrp.pdf>

<sup>16</sup> Approved WLP Roadmap is in Supplementary Appendix A of the PFR Report for Project 2.

management arrangements are considered satisfactory. A summary of the Financial Management Internal Control Risk Assessment is given below:

**Table 14: Risk Mitigation Measures on Financial Management**

<b>Risk</b>	<b>Risk Description</b>	<b>Risk Assessment</b>	<b>Risk Mitigation Measures</b>
1. Country-Specific : Inability to charge for water	KMC has significant water losses, does not meter all its customers, and large water wastage. In addition revenue from water supply and sewerage does not meet the O&M costs, unless both allocation from property taxes, and State government subsidy is considered. The KMC Act, 1980, has provisions allowing KMC to levy charges on all categories of consumers.	Substantial	Road Map for introduction of 100% household metering, establishment of a Water Loss Management Unit and ultimately volumetric tariff for all consumers was approved in February 2016, and to be implemented during 2016-2018.
2. Entity-Specific: Poor collection efficiency ratio for property taxes and inability to measure NRW due to inadequate metering	Property tax is the major source of revenue. KMC is able to collect between 60% and 65% of the demands that they raise every year. Demands are based on ARV of property taxation. As understood, not all properties within the 144 wards are within the property tax net. In addition, due to various reasons over the years, there are redundant demands. KMC need to improve the mechanism for recording correct demand, include all properties under the tax net, including newly constructed properties, and improve collection through proper enforcement.	Substantial	GIS mapping of properties is being carried out, and more aggressive collection mechanisms are planned by KMC's Revenue Department.  Commitment to roll-out UABPT by FY 2016-2017 has been obtained from KMC.
3. Project-Specific	Lessons identified from the previous KEIP loans have been incorporated, and the PMU has strong implementation capacity. The accounting, reporting, internal control and audit mechanisms are also well in place.	Low	Not Applicable
<b>Overall Inherent Risk</b>		<b>Moderate</b>	

ARV = annual rental value, FY = fiscal year, KEIP = Kolkata Environmental Improvement Project, KMC = Kolkata Municipal Corporation, NRW = nonrevenue water, O&M = operation and maintenance, PMU = program management unit, UABPT = unit area basis of property taxation.

21. **Control Risk** is the risk that the project's accounting and internal control framework are inadequate to ensure project funds are used economically and efficiently and for the purpose intended, and that the use of funds is properly reported.

**Table 15: KMC Control Risk Summary**

<b>Risk Type</b>	<b>Risk Description</b>	<b>Risk Assessment</b>	<b>Proposed Mitigation Measures</b>
1. Executing Agency	PMU is responsible for the accounting, reporting and implementation of KEIP, including Project 2. It is very experienced in implementing State and central government sponsored programs as well as externally funded projects, including ones funded by ADB.	Low	Not applicable
2. Funds Flow	Delays in allocation and release of funds	Moderate	PMU will manage overall project funds. Direct payment mechanism may be used for Project 2 as in the case of Project 1, subject to borrower's approval, similar to past loans funded by ADB, as it has been successfully used in the past to mitigate this risk.
3. Staffing	PMU Finance Section is adequately staffed with competent and experienced personnel, and provides professional quality service.	Low	Not applicable
4. Budgeting	Budgeting is aligned to the KMC Act, 1980 and GoWB requirements. Focuses on annual requirements. Actual expenditure is between 80-90% of budgeted amounts.	Moderate	KMC has still not migrated to a regime of preparing long-term investment plans (say 5-year) and then link the same to annual budgets as per its priority of funding. Nonetheless, KMC is regularly preparing annual budgets factoring some long-term projects. like that of KEIP and KEIP.
5. Accounting Policies and Procedures	Policies and procedures are well documented. PMU uses Indian Accounting Standards.	Low	Not applicable
6. Internal Audit	Internal audit is conducted regularly by the Internal Audit Department of KMC, which is headed by the Chief Municipal Auditor, appointed by GoWB. Reports are presented annually to the Mayor of KMC, although copies of reports are maintained confidentially and not widely shared.	Moderate	Internal audit of the project accounts may be prepared and shared with GOWB, Government of India, and ADB.
7. External Audit (project level)	C&AG has the constitutional mandate to conduct external audits of donor funded projects. Annual project audit reports are typically produced within 6 to 9 months of the end of the	Moderate	Not applicable. The Project Director through the Municipal Commissioner may request the C&AG to complete the annual audit of the project annual financial statements by 30

Risk Type	Risk Description	Risk Assessment	Proposed Mitigation Measures
	financial year. Compliance reports are prepared and submitted in response to audit findings for disposal of the same.		September every year.
8. External Audit (entity level)	C&AG conduct audit of the KMC as part of its overall state level audits. Last audit report for FY 2013-2014 is unqualified and contains mostly legacy issues.	Low	Not Applicable
9. Reporting and Monitoring	KMC prepares its financial statements as per Section 155 of the KMC Act. KMC adopted accounting policies and standards for preparation of the financial statements under a conventional format. For project accounts, KMC adopted a separated accounting policy. Along with KMC, the PMU also prepares its financial statements that include receipts and payments account for the year and balance sheet as at the end-day of the financial year. The PMU is not required to prepare any income statement. KMC incorporates accounts of KEIP/PMU in its annual accounts.	Low	Not applicable
10. Information Systems	The accounting and financial management system is computerized. At present, KMC use Oracle 7i for its database and Developer 2000 as the front-end tool. The PMU uses Oracle Financials, ERP package.	Moderate	PMU decided to upgrade the existing accounting system using cloud technology and incorporating further reforms of the system (the bidding process of the relevant Package 8A is under process)
<b>Overall Control Risk</b>		<b>Moderate</b>	

ADB = Asian Development Bank, C&AG= Comptroller and Auditor General, ERP = enterprise resources planning, GoWB = Government of West Bengal, KEIP = Kolkata Environmental Improvement Program, KEIP = Kolkata Environmental Improvement Project, KMC = Kolkata Municipal Corporation, LED = light-emitting diode, PMU = program management unit.

22. Financial management risks and mitigation will be updated throughout the life of Project 2. These measures will be updated at the mid-term review of Project 2, expected in Q3 of 2019, and after review missions as needed.

## B. Disbursement

### 1. Disbursement Arrangements for ADB

23. The loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2015, as amended from time to time), and detailed arrangements agreed upon between the government and ADB. Online training for KMC staff on disbursement policies and procedures is available.<sup>17</sup> KMC and PMU staff will avail of this training to help ensure efficient disbursement and fiduciary control.

24. ADB will lend to the Government of India, which will onlend to the State of West Bengal, and through the State to KMC, in Indian rupees on all other terms and conditions on a back-to-back basis. KMC will use the same fund flow and disbursement arrangements for Project 2 as Project 1. The Government of India will pass on the rupee equivalent of the loan proceeds to the State and then to KMC through the budgetary mechanism. The disbursement procedures include, but are not limited to, direct payment procedure, subject to borrower's approval; commitment letter procedure, reimbursement procedure, and statement of expenditures (SOE) procedure. The PMU will be signatories to the contracts and the payment checks.

25. **Imprest Fund Procedure.** Immediately upon loan effectiveness of the Project, India may open and maintain an imprest account in the name of the CAAA with the Reserve Bank of India. The maximum ceiling of the imprest account will not, at any time, exceed 10% of the loan amount. The imprest account will be denominated in US dollars (loan currency). The initial advance or replenishment by ADB into the imprest account will be converted into equivalent rupees by the CAAA following its policy. The executing agency may open a sub-account in a commercial bank acceptable to ADB. If requested by the executing agency, the proceeds will be transferred from the imprest account in rupees in accordance with relevant procedures of the Government of India to the sub-account. The Government of India will assure ADB that the funds from the imprest account will be transferred to the sub-account within 30 calendar days of the receipt of the advance or replenishment.

26. The sub-account will allow withdrawal of all funds in credit at any time and places no restrictions on the number or amount of withdrawals at any time. Any interest earned on the credit balance in sub-account can be utilized to meet project expenditure. It is clarified that any temporary surplus balances in the sub-account should be retained in the savings account only, and may not be further re-deployed as fixed deposits. The request for initial advance to the imprest account should be accompanied by an Estimate of Expenditure Sheet setting out the estimated expenditures for the first 6 months of project implementation, and submission of evidence satisfactory to ADB that the sub-account has been duly opened. For every liquidation and replenishment request of the imprest account, the executing agency will furnish to ADB (i) Statement of Account (Bank Statement) from the commercial bank where the sub-account is maintained, and (ii) the Imprest Account Reconciliation Statement reconciling the above mentioned bank statement against the executing agency's records.<sup>18</sup>

27. The executing agency will be responsible for the use, management, replenishment, and liquidation of the accounts, based on the submission of suitable supporting documentation to ADB.

<sup>17</sup> Disbursement eLearning. [http://wpqr4.adb.org/disbursement\\_elearning](http://wpqr4.adb.org/disbursement_elearning)

<sup>18</sup> Follow the format provided in Appendix 10C of the *Loan Disbursement Handbook*.

28. **SOE procedure.**<sup>19</sup> The SOE procedure may be used for reimbursement of eligible expenditures. The ceiling of the SOE procedure is the equivalent of \$100,000 per individual payment. Supporting documents and records for the expenditures claimed under the SOE should be maintained and made readily available for review by ADB's disbursement and review missions, upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit. Reimbursement and liquidation of individual payments in excess of the SOE ceiling should be supported by full documentation when submitting the withdrawal application to ADB.

29. Before the submission of the first withdrawal application, the borrower should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the government, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is set in accordance with the Loan Disbursement Handbook. Individual payments below this amount should be paid by KMC and subsequently claimed to ADB through reimbursement, unless otherwise accepted by ADB.

## **2. Disbursement Arrangements for Counterpart Fund**

30. The PMU will be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds, (iii) collecting supporting documents, and (iv) preparing claims and sending to Aid, Accounts & Audit Division. Taxes and duties will be borne by the counterpart by way of cash contribution.

### **C. Accounting**

31. KMC will maintain separate project accounts and records by funding source for all expenditures incurred on KEIIP, and separately for Project 2. Project 2 financial statements will follow accounting principles and practices prescribed under the KMC Act, 1980, and any other applicable law or regulation prevailing in India, which are consistent with international accounting principles and practices. Project 2 financial statements should be prepared on an accrual basis of accounting consistent with KMC's own accounting framework. Template financial statements provided in the standardized terms of reference for audit of ADB assisted projects, agreed with the C&AG, the Department of Economic Affairs, and ADB can be referred to as a guide for preparing financial statements. Financial statements for individual tranches shall not be consolidated.

### **D. Auditing and Public Disclosure**

32. KMC will cause the project financial statements to be audited in accordance with international standards on auditing and/or in accordance with the Government's audit regulations, by the C&AG or any private external auditor empanelled and assigned to the audit by the C&AG, acceptable to ADB. The audited project financial statements will be submitted in the English language to ADB within 6 months of the end of the fiscal year by KEIIP.

33. For KMC's audited entity financial statements, together with the auditor's report, they will be submitted in the English language to ADB within 1 month after their approval by the relevant authority.

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<sup>19</sup> SOE forms are available in Appendix 9B and 9C of ADB's *Loan Disbursement Handbook* (2015, as amended from time to time).

34. The audit report for the project financial statements will include a management letter and auditor's opinions, which cover (i) whether the project financial statements present an accurate and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting standards; (ii) whether the proceeds of the loan were used only for the purpose(s) of the project; and (iii) whether the borrower or executing agency was in compliance with the financial covenants contained in the legal agreements (where applicable).

35. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor. Internal audit continues to be undertaken by KMC and sample internal audits shall be conducted by the Internal Audit Department for at least 10% of the vouchers under Project 2.

36. The Government, KMC and PMU have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.<sup>20</sup> ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

37. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's Public Communications Policy 2011.<sup>21</sup> After the review, ADB will disclose the audited project financial statements and the opinion of the auditors on the project financial statements no later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter and KMC's audited entity financial statements will not be disclosed.<sup>22</sup>

## VI. PROCUREMENT AND CONSULTING SERVICES

### A. Advance Contracting and Retroactive Financing

38. ADB previously approved advance contracting for KEIIP. An assessment of executing agency's overall procurement capacity, including e-procurement, was carried out and found acceptable. All advance contracting and retroactive financing will be undertaken in conformity with ADB Procurement Guidelines (2015, as amended from time to time) and ADB's Guidelines

<sup>20</sup> ADB's approach and procedures regarding delayed submission of audited project financial statements:

- (i) When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (a) the audit documents are overdue; and (b) if they are not received within the next 6 months, requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- (ii) When audited project financial statements are not received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (a) inform the executing agency of ADB's actions; and (b) advise that the loan may be suspended if the audit documents are not received within the next 6 months.
- (iii) When audited project financial statements are not received within 12 months after the due date, ADB may suspend the loan.

<sup>21</sup> Public Communications Policy: <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>

<sup>22</sup> This type of information would generally fall under public communications policy exceptions to disclosure. ADB. 2011. *Public Communications Policy*. Paragraph 97(iv) and/or 97(v).

on the Use of Consultants (2013, as amended from time to time). The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The Government and KMC have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance Project 2.

39. **Advance contracting.** Advance contracting of (i) civil works, and (ii) equipment and materials was requested by the executing agency subject to these being eligible as per the agreed procedures and guidelines. Advance contracting would include: (i) preparation of tender documents to procure works, materials and equipment; and (ii) tendering and evaluation of bids.

40. **Retroactive financing.** The Government plans to request retroactive financing under Project 2. Except as otherwise agreed with ADB, the expenditures incurred for civil works, equipment and materials, and consulting services that are eligible for advance contracting, and project management and implementation expenses are eligible for retroactive financing of up to 20% of the proposed amount for the loan for eligible expenditures in each category incurred prior to effectiveness of the loan, but no earlier than 12 months before the signing of the loan agreement.

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

41. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines (2015, as amended from time to time).

42. An 18-month procurement plan for Project 2 indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C. The procurement plan will be updated by the PMU for approval by ADB at least once a year (more frequently if necessary) and will cover the next 18 months of procurement activity. A delay in loan effectiveness, other start-up delays, and delays during implementation will require an unscheduled procurement plan update. ADB will review each updated procurement plan prior to its publication. When appropriate, this activity may be undertaken in the field by ADB missions working with the executing and implementing agencies.

43. International competitive bidding procedures will be used for civil works contracts estimated to cost \$40 million or more, and supply contracts valued at \$1 million or higher. Shopping will be used for contracts for procurement of works and equipment costing \$100,000 and below.

44. Master bidding documents for national competitive bidding (NCB) works was prepared for e-tendering and reviewed by ADB, which will be used throughout Project 2 implementation period for procurement under NCB. ADB and the government have reviewed the public procurement laws of the central and state governments to ensure consistency with ADB's Procurement Guidelines (2015, as amended from time to time).

45. The design and supervision consultant (DSC) already engaged under Project 1 will prepare the detailed design for Project 2. Existing PMC and DSC, engaged under project 1, will continue to provide required services for Project 2 until the completion of Project 1, after which additional supervision consultant and project management consultant will be engaged. All consultants will be recruited according to ADB's Guidelines on the Use of Consultants (2013, as



amended from time to time).<sup>23</sup> The terms of reference for all consulting services are detailed in Section D. An estimated 733 person-months input of national consultants is required under Project 2 to (i) facilitate project management and implementation, and (ii) strengthen the institutional and operational capacity of the PMU and executing agency. Consulting firms will be engaged using the quality- and cost-based selection method with a standard quality–cost ratio of 80:20. The ToRs for all consulting services required under Project 2 are detailed in Section D.

## C. Procurement Plan

<b>Project Name:</b> Kolkata Environmental Improvement Investment Program –Project 2	
<b>Project Number:</b> 42266-025	<b>Approval Number:</b>
<b>Country:</b> India	<b>Executing Agency:</b> Kolkata Municipal Corporation
<b>Project Procurement Classification:</b> Category B	<b>Implementing Agency:</b> N/A
<b>Project Procurement Risk:</b> Low	
<b>Project Financing Amount:</b> <b>ADB Financing:</b> <b>Cofinancing (ADB Administered):</b> <b>Non-ADB Financing:</b>	<b>Project Closing Date:</b> 30 October 2021
<b>Date of First Procurement Plan:</b> 18 March 2016	<b>Date of this Procurement Plan:</b> 28 July 2016

*Updated Version 1 dated 7 July 2017 uploaded on ADB website.*

<https://www.adb.org/projects/documents/ind-42266-025-pp>

### 1. Methods, Thresholds, Review and 18-Month Procurement Plan

#### a. Procurement and Consulting Methods and Thresholds

Except as ADB may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works		
Method	Threshold	Comments
ICB for Goods	\$1,000,000 and Above	
NCB for Goods	Between \$100,000 and \$999,999	The first NCB bid document is subject to prior review.
Shopping for Goods	\$100,000 and below	Post Review, executing agency will issue public request for quotations
ICB for Works	\$40,000,000 and Above	
NCB for Works	Between \$100,000 and \$39,999,999	The first NCB bid document is subject to prior review.
Shopping for Works	\$100,000 and below	Post Review, executing agency will issue public request for quotations

Consulting Services	
Method	Comments
QCBS for Consulting Firm	
QBS for Consulting Firm	
Others for Consulting Firm	
Others for Individual Consultant	

ICB = international competitive bidding; NCB = national competitive bidding; QBS = Quality-Based Selection; QCBS = Quality- and Cost-Based Selection.

<sup>23</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/>

## 2. Works Contracts Estimated to Cost \$ 1 Million or More

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

Package Number	General Description	Estimated Value	Procurement Method	Review (Prior/Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
SD09	Sewerage & drainage work and construction of 1 pumping station in Ward No. 114 (Part) in Borough-XI	15,770,000.00	NCB	Prior	1S2E	Q1 / 2016	PoB: N  DP Applicable: N  AC: Y  BD: Large Works
SD10	Sewerage & drainage network in Rania Box Catchment (Part of Ward Nos. 111, 112 & 113) in Borough-XI	13,390,000.00	NCB	Prior	1S2E	Q1 / 2016	PoB: N  DP Applicable: N  AC: Y  BD: Large Works
SD11	Sewerage & drainage network in Vivekananda Road Catchment (Part of Ward Nos. 113 & 114) and construction of 1 pumping station in Borough-XI	18,000,000.00	NCB	Prior	1S2E	Q1 / 2016	PoB: N  DP Applicable: N  AC: Y  BD: Large Works
SD12	Laying of trunk sewer along James Long Sarani by micro-tunneling method	14,290,000.00	NCB	Prior	1S2E	Q2 / 2016	PoB: N  DP Applicable: N  AC: Y  BD: Large Works  Comments: Will serve as master bid document

Package Number	General Description	Estimated Value	Procurement Method	Review (Prior/Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
SD13	Development of sewerage & drainage network within	11,780,000.00	NCB	Prior	1S2E	Q2 / 2016	PoB: N  DP Applicable: N
	James Long Sarani and Mahatma Gandhi Road Catchment in Borough-XVI (Ward Nos. 123 & 124)						AC: Y  BD: Large Works
SD14	Laying of lateral sewers in part of Borough-XIV (Ward Nos. 128 to 132)	22,150,000.00	NCB	Prior	1S2E	Q2 / 2016	PoB: N  DP Applicable: N  AC: Y  BD: Large Works
SD19	Sewerage & drainage mains and 2 pumping stations (augmentation of Keorapukur MPS) in Tolly's Nullah / Keorapukur Sub-Basin in Borough-XIII (Ward No. 115 & part of Ward No. 122)	12,000,000.00	NCB	Prior	1S2E	Q2 / 2016	PoB: N  DP Applicable: N  AC: Y  BD: Large Works
SD22	Sewerage & drainage mains and pumping stations in Churial Extension Catchment in Borough-XIII & XVI (part of Ward Nos. 122, 123 & 124) - 1	15,500,000.00	NCB	Prior	1S2E	Q3 / 2016	PoB: N  DP Applicable: N  AC: Y  BD: Large Works
SD23	Construction of new pumping station at Lalababu Nikashi / Bagjola Canal - 1	5,490,000.00	NCB	Prior	1S2E	Q3 / 2016	PoB: N  DP Applicable: N  AC: Y  BD: Large Works
WS15	Construction of 2 UGR cum PS	18,120,000.00	NCB	Prior	1S2E	Q1 / 2016	PoB: N

Package Number	General Description	Estimated Value	Procurement Method	Review (Prior/ Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
	at Prantik PH-III and KMC Land on Julpia Road; 6 elevated service reservoirs at Prantik PH-III, N-E of SSE STP, N-W of SSE STP, KMC Land on Julpia Road, WBSETCL, 22 Bigha						DP Applicable: N  AC: Y  BD: Large Works
WS16	Laying of Transmission Main from Daspara near existing PS to UGRs at Prantik PH-III and KMC Land on Julpia Road; and Transmission Main from UGRs to 8 ESRs (6 Proposed + 2 Existing)	9,810,000.00	NCB	Prior	1S2E	Q2 / 2016	PoB: N  DP Applicable: N  AC: Y  BD: Large Works
WS17	Laying of Distribution System and House Connection within the Command Area of 8 ESRs (6 Proposed + 2 Existing)	21,750,000.00	NCB	Prior	1S2E	Q3 / 2016	PoB: N  DP Applicable: N  AC: Y  BD: Large Works
WS18	Construction of Elevated Service Reservoir at Ramkantapur, Malpara, Charaktala; Transmission Main from UGR at KMC Land on Julpia Road to 3 ESRs; Distribution System and House Connection within Command Area of 3 ESRs	12,000,000.00	NCB	Prior	1S2E	Q3 / 2016	PoB: N  DP Applicable: N  AC: Y  BD: Large Works

Package Number	General Description	Estimated Value	Procurement Method	Review (Prior/Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
WS24	Dedicated Water Supply Transmission	15,250,000.00	NCB	Prior	1S2E	Q3 / 2016	PoB: N  DP
	Main from Junction of James Long Sarani to Daspara near existing Pumping Station along James Long Sarani						Applicable: N  AC: Y  BD: Large Works
WS25	Water Loss Management under Jay Hind WTP Area (Eastern Kolkata)	25,420,000.00	NCB	Prior	1S2E	Q3 / 2016	PoB: N  DP Applicable: N  AC: Y  BD: Large Works  Comments: O&M to be financed by ADB up to loan closing period
WS26	Improvement of monitoring water supply network of KMC with establishment of DMAs and procurement pressure/ flow/ bulk meters and leak detection equipment	12,000,000.00	ICB	Prior	1S2E	Q3 / 2016	PoB: N  DP Applicable: N  AC: Y  BD: Goods

AC = advance contracting, DP = domestic preference, ICB = international competitive bidding, NCB = national competitive bidding, PoB = preference of bidders

### 3. Consulting Services Contracts Estimated to Cost \$100,000 or More

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

Package Number	General Description	Estimated Value	Recruitment Method	Review (Prior/Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
KCS-05	Project Management Consultants (2016-2021)	1,720,000.00	QCBS	Prior	Q1 / 2017	FTP	Assignment: National  Quality-Cost

Package Number	General Description	Estimated Value	Recruitment Method	Review (Prior/Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
							Ratio: 80:20 AC: N Comments: 60-month assignment
KCS-06	Design and Supervision Consultants (2016-2021)	4,580,000.00	QCBS	Prior	Q1 / 2017	FTP	Assignment: National Quality-Cost Ratio: 80:20 AC: N Comments: 60-month assignment

AC = advance contracting, FTP = full technical proposal, QCBS = quality and cost based selection.

**4. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000 (Smaller Value Contracts)**

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

<b>Goods and Works</b>								
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value</b>	<b>Number of Contracts</b>	<b>Procure - ment Method</b>	<b>Review (Prior/ Post)</b>	<b>Bidding Procedure</b>	<b>Advertise- ment Date (quarter/ year)</b>	<b>Comments</b>
None								

<b>Consulting Services</b>								
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value</b>	<b>Number of Contracts</b>	<b>Recruitment Method</b>	<b>Review (Prior/ Post)</b>	<b>Advertise- ment Date (quarter/year)</b>	<b>Type of Proposal</b>	<b>Comments</b>
None								

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

The following table provides an indicative list of goods, works and consulting services contracts over the life of the project, other than those mentioned in previous sections (i.e., those expected beyond the current period).

<b>Goods and Works</b>							
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (cumulative)</b>	<b>Estimated Number of Contracts</b>	<b>Procurement Method</b>	<b>Review (Prior/Post)</b>	<b>Bidding Procedure</b>	<b>Comments</b>
None							

<b>Consulting Services</b>							
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (cumulative)</b>	<b>Estimated Number of Contracts</b>	<b>Recruitment Method</b>	<b>Review (Prior/Post)</b>	<b>Type of Proposal</b>	<b>Comments</b>
None							

## **C. List of Awarded and On-going, and Completed Contracts**

The following tables list the awarded and on-going contracts, and completed contracts.

### **1. Awarded and Ongoing Contracts**

<b>Goods and Works</b>							
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value</b>	<b>Contract Value</b>	<b>Procurement Method</b>	<b>Advertisement Date (quarter/year)</b>	<b>Date of ADB Approval of Contract Award</b>	<b>Comments</b>
None							

<b>Consulting Services</b>							
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value</b>	<b>Contract Value</b>	<b>Recruitment Method</b>	<b>Advertisement Date (quarter/year)</b>	<b>Date of ADB Approval of Contract Award</b>	<b>Comments</b>
None							

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

46. Outline ToRs of the consultants to be engaged under Project 2 are in Appendix 1.

## VII. SAFEGUARDS

### A. Environmental Safeguards

47. Two draft initial environmental examinations (IEEs) with environmental management plans (EMPs) were prepared for the subprojects in accordance with ADB's Safeguard Policy Statement (SPS), 2009, and government laws (Appendix 10 of the PFR Report for Project 2). The Environmental Assessment and Review Framework prepared in 2012 was updated (Appendix 9 of the PFR Report for Project 2), to provide guidance on safeguard screening, assessment, institutional arrangements, and processes to be followed for components of the project, where design takes place after ADB approval. Described below are the institutional roles and responsibilities to ensure subprojects, in its project cycle, will not deteriorate or interfere with the environmental sensitivity of a project area but rather improve environmental quality through development of infrastructure facilities.

48. **Safeguard Monitoring Unit (SMU).** The existing institutional arrangement for implementation of the KEIIP Project 1, which has been functioning satisfactorily, will continue. The responsibilities of the Environmental Specialist in the PMU's SMU include ensuring (i) environmental safeguard issues are addressed; (ii) EMP is implemented; (iii) physical and non-physical activities under the subproject are monitored; and (iv) monitoring reports are prepared on a timely manner and submitted to ADB. The PMU Environmental Specialist will be supported by the environmental and community mobilizer team.

49. PMU will be supported by the existing DSC. An environment specialist has been engaged under the DSC to ensure that (i) EMP is implemented; (ii) surveys and measurements are undertaken; (iii) inspections and observations throughout the construction period are recorded to ensure that safeguards and mitigation measures are provided as intended; and (iv) statutory clearances and permits from government agencies and other entities are obtained prior to start of civil works.

50. The specific responsibilities of the SMU include, but not limited to:

- (i) prepare the REA checklist, to draft the Environmental Impact Assessment (EIA)/IEE and to disclose the approved EIA/IEE in the website;
- (ii) ensure that Environmental Clearance, Consent to Establishment and Consent to Operate and other certificates, as required, are obtained in time from appropriate authorities and to ensure compliances with conditions imposed;
- (iii) ensure incorporation of the EMP, environmental mitigation and monitoring measures into the contract documents;
- (iv) monitor disclosure and public consultation arranged by DSC during IEE process and to ensure that comments are reflected in the IEE report;
- (v) ensure disclosure of information throughout the duration of the subproject through suitable visual means and publications;
- (vi) provide necessary input for grievance redress;
- (vii) approve contractor's proposed locations for construction work camps, storage areas, hauling roads, lay-down areas, and disposal areas for solid and hazardous wastes on recommendations of DSC;
- (viii) guide the Contractor for drawing up of Site EMP and to approve the same;
- (ix) induct the Contractor for taking up the construction following environmental and social safeguards;
- (x) facilitate scheduled monitoring during implementation of the project;



- (xi) carry out regular onsite monitoring and guide the Contractor to adopt the required site management standard;
- (xii) ensure the required health and safety measures at work sites;
- (xiii) obtain in time and to review the monthly monitoring report of the Contractors;
- (xiv) prepare 6-monthly monitoring and EMP implementation report, including the status of project compliance, statutory clearances and relevant loan covenants, and submit the approved 6-monthly report to ADB and seek permission to disclose the same in the investment program website; and
- (xv) prepare monitoring report on post-construction activities by the contractors as specified in the EMP.

51. **Climate risk rating.** The climate risk rating for Project 2 is high. Extensive studies have been conducted by KMC on analyzing the flood risks posed by climate change and developing mitigation measures for the same. Example of such a study, conducted by the World Bank, is the *Vulnerability of Kolkata Metropolitan Area to Increased Precipitation in a Changing Climate*<sup>24</sup>. In addition, KMC conducted an extensive drainage and sewerage master-planning exercise with support from ADB funded KEIP consultants, has made a concerted effort in increasing its climate resilience by adopting these master plans and policies.<sup>25</sup> KEIP, including Project 2, is a result of these master plans and policies of KMC. Project 2 is designed incorporating the climate change adaptation and resilience measures, such as increased coverage with sewerage and drainage (S&D), and nonrevenue water (NRW) reduction for better water supply management. Examples of measures adopted while designing the S&D network, and associated facilities, such as pumping stations and water supply system, include hydraulic modelling and sizing of systems using increased precipitation scenarios, prioritizing areas with higher risks of increased inundation, constructing all pipes below ground, avoiding flood plains for siting of any pumping stations or associated structures, among others. During detailed design, KMC has further mapped out the low lying areas or most flood prone areas under the S&D component and each of the S&D contract packages. The PMU will continue to be supported by the DSC and PMC to ensure that any updates in detailed design will use the same principles and adequate quality controls in design and construction monitoring. The attached TA<sup>26</sup> will assist KMC in further strengthening KMC's climate resilience through improved planning, capacity building and flood-related disaster risk management.

## **B. Involuntary Resettlement and Indigenous People (Social Safeguards)**

52. The Resettlement Framework was updated<sup>27</sup> to ensure consistency with ADB's SPS 2009 and government's laws. Three Resettlement Plans and 11 due diligence reports were prepared for Project 2, in accordance with ADB's SPS, 2009, and government laws.<sup>28</sup> The Resettlement Plans were submitted to ADB for review and approval, are included in the Government's PFR, and are in the process of being publicly disclosed.

53. Due diligence on indigenous people reveals that: (i) Project 2 will not have any impacts

<sup>24</sup> Report No. 53282-IN, India: Vulnerability of Kolkata Metropolitan Area to Increased Precipitation in a Changing Climate, June 2011, Environment, Climate change and Water Resources Department, South Asia Region, The World Bank.

<sup>25</sup> Sewerage and Drainage Masterplan for Kolkata City, 2007, Kolkata Municipal Corporation; and *Action Plan to Mitigate Flood, Cyclone & Water Logging*, 2014, Kolkata Municipal Corporation. Refer Supplementary Appendix C for further details on related studies.

<sup>26</sup> Refer Supplementary Appendix C for details on the TA.

<sup>27</sup> Appendix 11 of the PFR Report.

<sup>28</sup> Appendix 12 of the PFR Report.

on indigenous peoples as the project sites are located in KMC with no indigenous people communities living in project sites. Any unanticipated impacts of the project will be documented and mitigated based on the spirit of the principles agreed upon in the Resettlement Framework and ADB SPS 2009 on Involuntary Resettlement. The PMU will have a dedicated social safeguard officer (SSO) and will be assisted by the Resettlement Specialist from DSC to monitor project compliance on safeguards. The following are institutional roles and responsibilities to ensure social safeguards requirements are followed during design and construction stages.

54. **PMU's SMU.** The PMU's SMU on behalf of responsible state agencies will:

- (i) ensure that the Resettlement Framework provisions are adhered to and the draft Resettlement Plans prepared during project processing are updated based on detailed designs;
- (ii) engage in ongoing meaningful consultations with stakeholders and affected persons particularly through implementation of the consultation and participation;
- (iii) Update the Resettlement Plans upon the completion of detail design and submit to ADB for review, approval and disclosure;
- (iv) Prepare Resettlement Plans or due diligence reports for new subprojects with support from the national social safeguards specialists of DSC;
- (v) ensure provision of timely payments by the Municipality to the affected persons before displacement/impact occurs in sections ready for construction;
- (vi) inform ADB for any unanticipated impacts identified during project implementation, prepare the required corrective action plan and implemented;
- (vii) ensure implementation of project Grievance Redress Mechanism (GRM) and all grievances are addressed;
- (viii) conduct regular monitoring and site visits for social safeguard compliance of all subprojects during civil works activities;
- (ix) maintain safeguard data base and GRM records;
- (x) conduct oversight and develop effective mechanism to monitor implementation of Resettlement Plans to ensure smooth project implementation; and
- (xi) review the consolidated monthly reports by DSMC social safeguards specialist and submit semi-annual monitoring reports to ADB. The monitoring reports should record the progress of resettlement activities and any compliance issues, grievances, corrective actions taken, follow-up actions required and status of compliance with relevant loan covenants.

55. **Additional requirements.** For the proposed project sites that are not fully owned or managed by the government, the participating Municipalities and/or relevant state agencies will provide letters and/or no objection certificate to construct and use from the landowners to PM and share it to ADB to confirm the land availability of the proposed project activities. Associated involuntary resettlement impacts, if identified, will be mitigated through a preparation of a Resettlement Plan following the project Resettlement Framework.

56. The semi-annual safeguards reporting will be prepared by the SMU, using the formats provided in Appendix 3.

57. **Project GRM.** The three-tier project GRM covers both environment and social issues. The GRM at borough level worked very effectively in KEIP (Phase I) as the first tier of the GRM

and has been retained for KEIP.<sup>29</sup> A Grievance Redress Unit, headed by the Administrative Officer, has been established in the KEIP PMU as the second tier of the GRM. For any unresolved grievances at PMU level, a Grievance Redress Committee (GRC) headed by the Commissioner KMC shall be the third tier of the GRM.<sup>30</sup> The GRM will be disclosed to the affected communities and households prior to the mobilization of contractors in any subproject areas. The Project GRC, supported by the DSC consultants as well as the PMU SSOs will be responsible for timely grievance redress on environmental and social safeguards issues and responsible for registration of grievances, related disclosure and communication with the aggrieved party. Contact details, procedures and complaint mechanism will be disclosed to the project affected communities at accessible locations and through various media (i.e. leaflets, newspapers, etc.). Samples of draft project leaflets, Grievance Registration Forms and monitoring templates are in the Resettlement Framework.

- (i) **1<sup>st</sup> Level Grievance.** The first point of contact for people filing complaints will be the SMU field workers assigned to the ward (who will be available at an appointed time at the sites(s) and borough office) and the contractor's personnel. The phone number of the KMC Borough office should be made available at the construction site signboards. Registers for writing complaints will be available at borough offices. The contractors and SMU safeguard monitors can immediately resolve grievances on-site in consultation with each other and the area engineer and borough engineer, as required, and will be required to do so within 7 days of receipt of a complaint/grievance. Record of grievances received at field level will be conveyed once a week to the SSO/Environment Safeguard Officer and Administrative Officer at PMU, to enable tracking.
- (ii) **2<sup>nd</sup> Level Grievance.** All grievances that cannot be redressed within 7 days at field/ward level will be reviewed by the PMU Administrative Officer, Safeguard Officers and concerned Deputy Chief Engineer, who will seek the advice of the Project Director, and Director General of PMU as necessary, and attempt to resolve the grievances within 15 days from the date of registration of complaint. If the PMU feels that the matter is beyond its jurisdiction, it will escalate the same to the GRC.
- (iii) **3<sup>rd</sup> Level Grievance.** All grievances that cannot be resolved at PMU level will be referred to the GRC with support from PMU and DSC. GRC will attempt to resolve them within 30 days from date of receipt of complaint.<sup>31</sup>

58. **Capacity Building.** PMU safeguards officers and staff will be further trained and assisted by DSC's social resettlement expert. Capacity building training of PMU SSO, SMU staff, DSC field personnel, contractors' personnel (minimum of 40 persons per training session)

<sup>29</sup> Complaints received during KEIP (Phase I) pertained mainly to water stagnation in project areas during heavy rain (addressed with the help of local councilors through the use of pumps), delays in road restoration, damage to compound walls/steps etc. in narrow lanes during construction, and number of house connections required per property (two or more connections were required per property in many cases, due to informal property subdivision, even though the property tax records show a single unit). Complaints received were immediately referred by the SDU to the concerned engineer in the PMU (the Director General Projects), who advised them on further action. Follow up with contractor/councilor was undertaken by SDU and final feedback sought from complainant on resolution. The first level of GRM was very effective in KEIP and helped smoothen the process of project implementation.

<sup>30</sup> The target date for establishment of the first level (borough level) of GRM and third level GRM (headed by Commissioner KMC) is before loan negotiation.

<sup>31</sup> The GRC will have the following members: KMC Commissioner as Chairperson, KEIP Project Director, Director General, KEIP, Environment/Social Safeguard Officer, Administrative Officer as the convener, SMU field workers in charge of concerned service area, Area Engineer, representatives of APs, Community Based Organizations (CBOs), and eminent citizens. The GRC must have at least two women members.

will be organized by the PMU and DSC Safeguard Expert, using external trainers and resource persons as necessary. Training will be conducted quarterly in year 1, and half-yearly in the subsequent years. Typical modules would be as follows: (i) introduction and sensitization to ADB SPS on Involuntary Resettlement and Indigenous People policies and requirements and Resettlement Framework; (ii) review, updating and preparation of the Resettlement Plans upon the completion of project detailed design; (iii) improved coordination within nodal departments; (iv) monitoring and reporting system, and (v) project GRM. Briefings on safeguards principles and GRM will also be conducted to the contractors upon their mobilization by PMU safeguards officers.

59. **Civil Works Contracts.** PMU will ensure that land transfers are completed and its records are updated for subprojects involving negotiated land acquisition and/ voluntary land donation activities prior to the start of civil works. The PMU will ensure that bidding and contract documents include specific provisions requiring contractors to comply with all (i) applicable labor laws and core labor standards on prohibition of child labor as defined in national legislation for construction and maintenance activities, on equal pay for work of equal value regardless of gender, ethnicity or caste, and on elimination of forced labor, and (ii) the requirement to disseminate information on sexually transmitted diseases including HIV/AIDS to employees and local communities surrounding the Project sites. Relevant provisions of the gender action plan (GAP) will be shared with the contractors' responsibilities by the PMU. Contractors will carry out all environmental and social mitigation and monitoring measures outlined in their contract. DSC specialists will assist the PMU in monitoring contractor's compliance activities. Pursuant to ADB's SPS (2009), ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth in Appendix 5 of the SPS.

### VIII. GENDER AND SOCIAL DIMENSIONS

60. Project 2 is classified as category effective gender mainstreaming (EGM) for gender. Project 2 will be socially inclusive and gender-focused, and will complement the ongoing activities under Project 1, and will provide direct benefits in the form of improved water supply to an estimated 1.95 million women and girls in KMC. Initiatives include (i) improved access to household level water supply, and sewerage and drainage connections in the areas covered, with affirmative actions for female-headed household; (ii) capacity building of the PMU and the water supply department of KMC on gender responsive planning and project implementation; (iii) improved employment in the facilities created by Project 2; and (iv) enhancement of technical skills of KMC's water supply department staff.<sup>32</sup> The GAP focuses on positive impacts on and outcomes for women, providing targets for consultations with women, employment opportunities in project facilities, training of females in PMU and KMC's water supply department, and convergence with KMC's social development department's skilled trainings. It will also result in health benefits and time savings for women as water fetchers and caregivers, through increased access to water supply, reduced flooding, improved sanitation systems, better living conditions, and long-term institutional capacity to promote inclusive development within project. Monitoring and evaluation will generate sex-disaggregated information to track gender impacts. Project 2's gender-focused activities complement ongoing activities under Project 1. A consultation and participation plan (CPP) for Project 2 was prepared (Appendix 5). The Summary Poverty Reduction and Social Strategy for KEIP was updated, and included in Appendix 8 of PFR report for Project 2.

<sup>32</sup> Registrar General & Census Commissioner of India defines a female-headed household as one where a woman bears the chief responsibility for household maintenance and makes decisions on behalf of the household.

**Table 16: Gender Action Plan for Project 2**

ACTIVITY	TARGETS/INDICATOR	RESPONSIBILITY	TIMELINE
<b>Output 1. Inefficient water supply assets rehabilitated</b>			
1.1. Prepare a sex disaggregated database of staff – with data on strength (grade wise) – of PMU, PIU, KMC water supply and S & D department, and update the database every 6 months	<ul style="list-style-type: none"> <li>Sex-disaggregated database of staff prepared and updated every 6 months</li> </ul>	PMU supported by PCSDC	Y1-onwards
1.2. Train KMC water supply department's staff on NRW reduction, and meter calibration and testing	<ul style="list-style-type: none"> <li>At least 100 KMC water supply department staff trained on NRW reduction and meter calibration and testing (Target: 100% eligible female staff of water supply department participated<sup>a</sup>) (2015 baseline: 0)</li> </ul>	PMU supported by PCSDC and NRW reduction contractors	Y1-2
1.3. Conduct information, education and communication (IEC) campaign on work opportunities in Project 2 for both women and men and assist interested and qualified candidates in applying for the available jobs	<ul style="list-style-type: none"> <li>One IEC campaign in each of the 16 boroughs conducted with information on new customer care centres and job opportunities (with special focus on female community members)</li> <li>One day help desk camp conducted in each of the 16 boroughs to assist qualified candidates with application procedure- with special focus on equally qualified female candidates</li> </ul>	KMC water supply department supported by PCSDC	Y2
1.4. Provide employment to female staff at KMC's new customer care centres in each of the 16 boroughs	<ul style="list-style-type: none"> <li>At least 33% of staff employed in customer care centres in the 16 boroughs of KMC are women</li> <li>Sex disaggregated data on applications received and new staff inducted in customer care centres is maintained and routinely updated</li> </ul>	KMC Water Supply Department supported by PCSDC	Y2-4
1.5. Conduct training on social leadership, and behavioural change on health, hygiene and sanitation, for Neighbourhood Groups(NHGs) and Self Help Groups (SHG) members	<ul style="list-style-type: none"> <li>16 numbers of BCC and social leadership training events organised- one in each borough and at least 50 NHG and SHG members trained (Target: 50% female) (2015 baseline: 0)</li> </ul>	PMU supported by PCSDC in collaboration with the Social Welfare and Urban Poverty Alleviation Department, KMC	Y1-2
1.6. Conduct vocational trainings for community members in plumbing, minor repair works and meter reading	<ul style="list-style-type: none"> <li>At least 30 female community members participated in vocational training in plumbing, minor repair works and meter reading (2015 baseline: 0)</li> </ul>	PMU in collaboration with the Swarna Jayanti Sahari Rojgar Yojana (SJSRY) of the Social Welfare and Urban Poverty Alleviation Department, KMC	Y2-4
<b>Output 2. Sewerage and drainage extension to peripheral areas continued</b>			
2.1. Build capacities of contractors in gender sensitivity, and	<ul style="list-style-type: none"> <li>Two half day trainings for contractors on gender sensitivity and related contract provisions</li> </ul>	PMU supported by PCSDC	Y2-4

ACTIVITY	TARGETS/INDICATOR	RESPONSIBILITY	TIMELINE
encourage contractors to engage women labourers and supervisors	<ul style="list-style-type: none"> <li>Contractors maintain sex disaggregated data on labour force participation and field supervisors</li> </ul>		
<b>Output 3. Financial and project management capacity further developed</b>			
3.1. Conduct capacity development trainings on planning and disaster management for KMC S&D department	<ul style="list-style-type: none"> <li>100% eligible female staff trained<sup>b</sup>; (2015 Baseline: n.a.)</li> </ul>	PMU, KMC and PCSDC	Y2-5
3.2. Train (on a yearly basis) PMU and concerned KMC water supply staff on gender mainstreaming, prevention of sexual harassment at work place, linkage between water, sanitation, health and GAP monitoring requirements	<ul style="list-style-type: none"> <li>At least 1 training conducted every year (100% eligible staff<sup>c</sup>) (2015 baseline: 0)</li> <li>A pre and post assessment questionnaire designed and administered in each training to evaluate the effectiveness of the training, and assessment of findings documented and shared.</li> </ul>	PMU supported by PCSDC	Y1-5
3.3. Collate and monitor in PPMS sex disaggregated and gender specific data on DMF indicators for gender	<ul style="list-style-type: none"> <li>100% of DMF gender indicators are monitored and reported in a sex disaggregated manner (2015 baseline: 0)</li> </ul>	PMU supported by PCSDC	Y1 Onwards
3.4. Monitor and report GAP implementation every quarter	<ul style="list-style-type: none"> <li>GAP report submitted every quarter (2015 baseline: 0)</li> </ul>	PMU supported by PCSDC	Y1 onwards

ADB = Asian Development Bank; BCC = Behavior change communication; GAP = Gender Action Plan; NGHs = Neighborhood Groups; Kolkata Municipal Corporation = KMC; PCSDC = Public Communications and Social Development Consultants; Program Performance Monitoring System = PPMS; Self Help Groups = SHG, S&D= Sanitation and Drainage, PMU= Program Management Unit, IEC= Information, Education and Communication

<sup>a</sup> Sex disaggregated data on KMC's Water Supply Department and Sewerage and Drainage Department will be collated and 100% female staff that qualify for the training will be included.

<sup>b</sup> 100% female staff of S&D department that qualify for the training

<sup>c</sup> 100% female staff that qualify for the training

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

### A. Project Design and Monitoring Framework

**Table 17: Design and Monitoring Framework for Project 2<sup>a</sup>**

Impact the Program is aligned with:			
Access to water supply and sanitation in the service areas of Kolkata Municipal Corporation improved. <sup>b</sup>			
Results Chain	Performance Indicators with Targets and Baselines <sup>c</sup>	Data Sources and Reporting	Risks
<b>Outcome</b> Service quality, operational sustainability, and climate resilience, in water supply, sewerage and drainage in the service area of KMC increased	By 2022, a. At least 843,500 HHs in KMC's service area received treated <sup>d</sup> water for a minimum of 12 hours per day (incl. est. 1.95 million females) (2015 baseline: 7-8 hours per day on average); b. At least 76,500 HHs in pilot areas (East Kolkata and Joka) received 24x7 treated water supply (incl. est. 167000 females) (2015 baseline: 7-8 hours per day on average in East Kolkata and 4 hours per day on average in Joka); c. KMC's Water Supply Department's operation and maintenance cost recovery maintained at 100%; (2015 baseline: 100%); and d. Incidence of flood reduced in 98% of coverage areas (2015 baseline: 85%).	a-c: KMC's Water Department's annual reports  d: KMC's Sewerage and Drainage Department's annual reports	Lack of political will in introducing volumetric tariffs at household level
<b>Outputs</b> 1. Inefficient water supply assets rehabilitated	By 2021, 1a. NRW in KMC's service area reduced to 25% (2015 baseline - around 50%) 1b. KMC water supply department's 100 staff trained on NRW reduction and meter calibration and testing (100% eligible female staff <sup>e</sup> ) (2015 baseline: nil) 1c. Existing SCADA upgraded and operational with data from bulk meters and pressure loggers from a minimum of 150 DMAs (2015 baseline: No DMAs exist) 1d. 16 additional CSC, one in each borough of KMC, and 1 additional meter calibration and	1a-1d: KMC's Water Department's annual reports and PPMS  1e-1g: PPMS and quarterly progress reports from the PMU approved by KMC	Delays in timely issuance of clearances by the statutory bodies

Results Chain	Performance Indicators with Targets and Baselines <sup>c</sup>	Data Sources and Reporting	Risks
	<p>testing laboratory established (At least 33% female staff employed) (2015 baseline: 1 CSC)</p> <p>1e. Additional 9 elevated and 2 ground level service reservoirs constructed of capacity ranging from 1250 cum to 17,500 cum.</p> <p>1f. At least 28 km of transmission mains and around 300 km of distribution network rehabilitated/constructed</p> <p>1g. At least 90,000 additional water (domestic) meters installed, monitored and maintained (incl. FHHs)<sup>e</sup></p>		
2. Sewerage and drainage extension to peripheral areas continued	<p>By 2021,</p> <p>2a. At least 83,400 additional HHs connected to S&amp;D network (incl. FHHs);<sup>f</sup></p> <p>2b. At least 128 km of additional sewer- drain pipes constructed, including 3 km of large (over 1,000 mm dia.) sewer-drain pipes laid through micro-tunnelling; and</p> <p>2c. Additional five pumping stations and 6 km of pumping mains constructed.</p>	2a-2c: PPMS and quarterly progress reports from the PMU approved by KMC	
3. Financial and project management capacity further developed	<p>By 2021,</p> <p>3a. KMC's property tax collection efficiency ratio improved to 75% (2015 baseline: 67%).</p> <p>3b. KMC's Water Loss Policy Roadmap implemented (2015 baseline: nil);</p> <p>3c. Early warning system for flood risk management designed, installed and implemented for KMC, and at least 20 staff (minimum 33% female) trained on its usage (2015 baseline: nil);</p> <p>3d. KMC's capacity development on climate resilient infrastructure and land use planning, and disaster management, completed</p>	<p>3a: KMC's annual reports;</p> <p>3b: KMC's Water Department's annual reports;</p> <p>3c-3e: TA progress reports and KMC's S&amp;D Department's annual reports</p> <p>3f: Quarterly progress reports from the PMU approved by KMC</p>	Lack of political will in fully shifting to area-based property tax.



Results Chain	Performance Indicators with Targets and Baselines <sup>c</sup>	Data Sources and Reporting	Risks
	<p>(2015 Baseline: nil) (100% eligible female staff trained<sup>f</sup>);</p> <p>3e. KMC's land use maps updated to incorporate climate change principles (2015 baseline: nil);</p> <p>3f. Additional 50 trainings conducted to PMU staff (100% eligible female staff<sup>f</sup>) on project implementation, sector best practices, ADB's policies and procedures.</p>		

#### Key Activities with Milestones

##### Output 1. Inefficient water supply assets rehabilitated, and services upgraded

- 1.1 Demarcate and hydraulically isolate the district metering areas in KMC. (Q1 2017 – Q1 2020)
- 1.2 Upgrade water supply services in Joka and its adjoining areas. (Q2 2017 – Q4 2019)
- 1.3 Implement nonrevenue water reduction measures in pilot zone of East Kolkata (Q1 2017 – Q2 2021)
- 1.4 Train WLM unit and KMC through on-the-job training. (Q1 2017 – Q3 2021)
- 1.5 Install around 240 bulk meters and 90,000 consumer meters (Q3 2017 – Q1 2021)
- 1.6 Establish the new customer centres, and the meter calibration and testing laboratory (Q3 2017 – Q1 2021)

##### Output 2. Sewerage and drainage extension to peripheral areas continued

- 2.1 Construct S&D network and two pumping stations in borough XI. (Q1 2017 – Q2 2020)
- 2.2 Construct S&D network and three pumping stations in borough XIII and XVI. (Q1 2017 – Q2 2021)
- 2.3 Construct S&D network and one pumping station in borough XIII and XVI. (Q2 2017 – Q2 2021)
- 2.4 Construct S&D network in borough XIV. (Q1 2017 – Q1 2021)
- 2.5 Construct one pumping station in borough I. (Q1 2017 – Q1 2020)
- 2.6 Provide house connections. (Q2 2017 – Q2 2021)

##### Output 3. Financial and project management capacity further developed

- 3.1 Develop capacity of KMC on climate resilient planning and disaster management, update land use maps, and install early flood warning system for KMC. (Q2 2017 – Q3 2021)
- 3.2 Training and capacity building of PMU. (Q4 2016 – Q3 2021)
- 3.3 Engage project management, design and supervision consultants. (Q2 2017 – Q3 2021)
- 3.4 Disclose project information to public. (Q2 2016 – Q3 2021)

#### Inputs

ADB: \$200,000,000 (OCR loan); \$1 million (technical assistance from the Urban Climate Change Resilience Trust Fund under the Urban Financing Partnership Facility)

Government and KMC: \$86,000,000

#### Assumptions for Partner Financing

Not Applicable

ADB = Asian Development Bank; CSC = customer service centres, DPR = detailed project report; FHH = female headed household; GE = gender equity; G/CD = governance and capacity development; HHs = households; km = kilometer; KMC = Kolkata Municipal Corporation; lpcd = liters per capita per day; m<sup>2</sup> = square meter; MLD = million liters per day; MT = metric ton; NA = not applicable, Q = quarter; PMU = Program Management Unit; PPMS = Program performance monitoring system; S&D = sewerage and drainage; SWM = solid waste management; TPD = tonnes per day; WSD = Water Supply Department; WTP = water treatment plant. SCADA= supervisory control and data acquisition.

<sup>a</sup> DMF was revised to align with ADB's new DMF guidelines.

<sup>b</sup> Defined by the Investment Program.

<sup>c</sup> All baseline data was provided by the PMU of KEIP, based on the 2011 Census, KMC's annual reports, and studies conducted in the past and recently through their consultants. No baseline data is provided for incremental outputs. All data sources and reports will be verified by a third party appointed by the KMC.

<sup>d</sup> In accordance with the standards prescribed by the Bureau of Indian Standards code number 10500:2012.

<sup>e</sup> Data on FHHs will be collected for the areas covered and all FHHs will be included under both Outputs 1 and 2.

<sup>f</sup> Sex disaggregated data on KMC water works and S&D departments, KMC and PMU will be collated and 100% female staffs who qualify for the training will be included.

Source: Asian Development Bank

## B. Monitoring

61. **Project performance monitoring.** The existing DSC and PMC, engaged under Project 1, will assist the PMU in completing baseline data collection for Project 2. The existing PMC and DSC will continue to assist the PMU to monitor performance of Project 2 using the targets, indicators, assumptions, and risks in the project design and monitoring framework, including how beneficiaries will be involved in project monitoring and evaluation, and report it in the quarterly progress reports to be submitted to ADB. These reports will provide information necessary to update ADB's project performance reporting system.<sup>33</sup>

62. **Gender and social dimensions monitoring.** The SMU of the PMU is co-headed by the senior officials in charge of each of the safeguards monitoring aspects including gender, such as SMU head - Environment, SMU head – Social, and SMU head - Gender. Regular training (once a year as a minimum) will be provided to the SMU to function as compliance officers on all three aspects of safeguards compliance monitoring, including GAP implementation monitoring. It was agreed that: (i) the SMU prepare and update the work plan for GAP implementation with timelines and deliverables every six months; (ii) provide continuous induction and orientation on GAP to implementing staff and contractors; and (iii) report GAP progress, in accordance with the agreed GAP monitoring matrix and submit to ADB on a quarterly basis as part of the quarterly progress reports. The agreed GAP implementation monitoring matrix for Project 2 is in Appendix 7.

## C. Evaluation

63. PMU will conduct regular review meetings, preferably twice a month with all the contractors, consultants, and PMU staff, under Project 2 to evaluate implementation progress and explore mitigation measures to address any bottlenecks and issues. A monthly report is prepared and circulated to all that identifies the corrective measures taken on the previous month's issues. The project performance monitoring system also aims to detect any deficiency and discrepancy between the plan and the execution of the project in order to ensure that timely corrections can be made to adjust the design and implementation issues. ADB conducts an annual review meeting to evaluate the project progress.

64. In addition, a midterm review of Project 2 will be undertaken by the fourth quarter of 2019. The midterm review will evaluate in detail the loan scope, implementation arrangements, any outstanding issues, environment and resettlement as well as other safeguard issues, achievement of scheduled targets, contract management progress, and other issues as appropriate, and generate agreement on any changes that may be needed. Within 6 months of physical completion of Project 2, KMC will submit a project completion report to ADB.<sup>34</sup>

## D. Reporting

65. The PMU 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, and (d) updated

<sup>33</sup> ADB's project performance reporting system is available at:  
<http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>

<sup>34</sup> Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

implementation plan for the next 12 months; and (iii) a project completion report within 6 months of physical completion of the project. To ensure that projects will continue to be both viable and sustainable, project accounts and the executing agency audited financial statement together with the associated auditor's report should be adequately reviewed.

## **E. Stakeholder Communication Strategy**

66. The consultation and participation plan<sup>35</sup> for Project 2 (Appendix 5) has been prepared. Information flows will focus on: (i) sharing project information (scope and progress) with decision makers, responsible agencies, consultants and contractors; (ii) explain the project and resolve concerns raised by affected persons; and (iii) involve beneficiaries in field-level monitoring activities. They provide information on: (i) who is responsible to ensure the actions and strategy are implemented, and (ii) what resources are required to implement the plan and strategy.

## **X. ANTICORRUPTION POLICY**

67. The government, state and KMC are advised of ADB's Anticorruption Policy (1998, as amended to date). Consistent with the commitment to good governance, accountability and transparency, implementation of the Project shall adhere to ADB's Anticorruption Policy. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.<sup>36</sup> In this regard, investigation of government officials, if any, would be requested by ADB to be undertaken by the government.

68. To support these efforts, relevant provisions of ADB's Anticorruption Policy are included in the Loan Regulations and the bidding documents. In particular, all contracts financed by ADB shall include provisions specifying the right of ADB to review and examine the records and accounts of the states and implementing agencies and all contractors, suppliers, consultants, and other service providers as they relate to the Project 2. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contract under the project.<sup>37</sup>

## **XI. ACCOUNTABILITY MECHANISM**

69. 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 an effort in good faith 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>38</sup>

<sup>35</sup> *Staff Guide to Consultation and 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>36</sup> Anticorruption Policy: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

<sup>37</sup> ADB's Integrity Office web site: <http://www.adb.org/integrity/unit.asp>

<sup>38</sup> Accountability Mechanism: <http://www.adb.org/Accountability-Mechanism/default.asp>.

## XII. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL

[illegible]

## OUTLINE TERMS OF REFERENCE FOR PROJECT 2 CONSULTANTS

### PART A: PROGRAM MANAGEMENT CONSULTANTS

Objective	The objective of the program management consultant is to provide assistance to the program and project management unit (PMU) in management of the Kolkata Environmental Improvement Investment Program, which will be financed by an Asian Development Bank's (ADB's) loans under the Multitranchise Financing Facility. The investment program will aim to increase service quality and operational sustainability in water supply and sewerage in 20% of the Kolkata Municipal Corporation (KMC) area. The investment program will deliver three outputs: (i) inefficient and outdated water supply assets rehabilitated; (ii) sewerage extension to newly developed areas continued; and (iii) financial and program management capacity further developed.
Scope of Services	The consultants will be responsible for effectively leading and taking initiative to manage, execute and implement the investment program, delineate PMU's method of working, installing procedures, operationalizing procedures and reporting systems, and work with the design and supervision consultant (DSC) and the PMU to prepare contracts, designing and procurement, assisting the PMU in approving all necessary surveys and subproject designs, establishing criteria for supervision, coordination, and management to ensure proper construction supervision by the DSC.
Estimated assignment period	From Q2 2018 to Q1 2021
Financing sources	The loan will cover the consulting service contracts for successful completion of Project 2, KEIP.
Activities	<p>The activities include, but not limited to:</p> <ul style="list-style-type: none"> <li>(i) Assist the PMU to finalize detailed design and bidding documents prepared by the DSC for the new projects for subsequent ADB financing.</li> <li>(ii) Assist the PMU in preparing annual work plan, detailed implementation schedule and budget using computer based program management tools.</li> <li>(iii) Support the PMU in developing mechanisms for accurately estimating the annual contract award and disbursement targets.</li> <li>(iv) Verify and evaluate the project performance indicators in ADB's design and monitoring framework and the service benchmark indicators as issued by the Ministry of Urban Development, in collaboration with the Public Communication and Social Development Consultant in accordance with the Gender Action Plan.</li> <li>(v) Compile and prepare on behalf of the PMU all the reports including progress report for the project in the formats acceptable to ADB and Government of India.</li> <li>(vi) Determine project accounting need, prepare necessary specification and assist the PMU in the procurement of all software necessary for effective management of the project.</li> <li>(vii) Supervise and/or install software and ensure its proper commissioning as and when required.</li> <li>(viii) Assist PMU in maintaining proper accounts with all ledger and control systems.</li> <li>(ix) Develop and recommend a subsidy strategy for water supply and sewerage service user charges.</li> <li>(x) Develop volumetric and non-volumetric water tariff schedule for domestic household connections with sewerage surcharge, which meets Jawaharlal Nehru National Urban Renewal Mission's reform agenda on operation and maintenance cost recovery and the subsidy strategy, but ensuring affordability for the poor and vulnerable, with complete financial simulation model and affordability analysis.</li> <li>(xi) Develop a plan for water meter reading, billing, and collection, with a draft service contracts acceptable to ADB, based on the actual contract being used in India and other countries.</li> <li>(xii) Develop rules for apportioning costs for water supply and sewerage operations, such as energy and staff not directly involved in operations.</li> </ul>

	<p>(xiii) Assist the PMU in the evaluation of bid proposals and prepare bid evaluation report jointly with the DSC.</p> <p>(xiv) Assist the PMU in the negotiation with the successful bidders as and when necessary.</p> <p>(xv) Assist the PMU in preparing various reports to ADB as defined in the facility administration manual.</p> <p>(xvi) Collaborate with the DSC in the preparation of contract documents.</p> <p>(xvii) Collaborate with the DSC in checking detailed engineering designs and drawings prepared by the contractors.</p> <p>(xviii) Assist the PMU in managing and supervising all consultancy contracts (except that of the DSC).</p>																																																				
Output/report requirements	<p>(i) Finalized detailed project reports and detailed engineering design.</p> <p>(ii) Draft work plan and detailed implementation schedule.</p> <p>(iii) Annual contract award and disbursement estimates.</p> <p>(iv) Project performance monitoring system baseline data and their semi-annual updates in accordance with the facility administration manual and Ministry of Urban Development's service level benchmarking indicators.</p> <p>(v) Compiled monthly and quarterly progress report.</p> <p>(vi) Specification of project accounting system for upgrade.</p> <p>(vii) Draft subsidy policy on water supply and sewerage service user charges.</p> <p>(viii) Draft tariff on volumetric and flat rate water supply and sewerage service.</p> <p>(ix) Draft notifications as requested by the PMU.</p> <p>(x) Draft rules for apportioning the common costs of water supply and sewerage operations, such as energy and staff not directly involved in operations.</p> <p>(xi) Assessment and recommendations of the options for the PMU to transform an autonomous project management authority.</p> <p>(xii) Draft the government order and the article of association or equivalent for establishment of the project management authority.</p> <p>(xiii) A legal agreement template for the project management authority to enter into agreement with the potential clients.</p> <p>(xiv) Draft bid evaluation reports.</p> <p>(xv) Draft contract negotiations minutes.</p> <p>(xvi) Finalized contract documents.</p> <p>(xvii) Checklist and assessment reports on the detailed engineering designs and drawings prepared by the contractors.</p> <p>(xviii) Inception report, progress reports, draft final report and final report.</p>																																																				
Office, support staff and equipment	<p>The PMU will provide office accommodation and office equipment, including desks and chairs.</p> <p>The consultants will quote the remuneration, per-diem, cost of support staff and assistants, and domestic travels.</p> <p>The cost of organizing workshop and meetings, vehicles, office supplies, computer consumables, and communication will be paid out of the provisional sum.</p>																																																				
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	<p>GIS = geographic information system, SCADA = supervisory control and data acquisition. Note: Additional 514 person-months inputs of support staff will be required. Source: Kolkata Municipal Corporation estimates.</p>
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**PART B: DESIGN AND SUPERVISION CONSULTANTS**

Objective	The Objective of the Design and Supervision Consultant is to provide assistance to the program and project management unit (PMU) in implementation of the Kolkata Environmental Improvement Investment Program, which will be financed by an Asian Development Bank's (ADB's) loans under the Multitranchise Financing Facility. The investment program will aim to increase service quality and operational sustainability in water supply and sewerage in 20% of the Kolkata Municipal Corporation (KMC) area. The investment program will deliver three outputs: (i) inefficient and outdated water supply assets rehabilitated; (ii) sewerage extension to newly developed areas continued; and (iii) financial and project management capacity further developed.
Scope of Services	The consultants will update various studies and project preparation documents, preparation of subproject appraisal reports, carry out contract planning and detailed engineering designs, prepare schedule of quantities and specifications, review drawings prepared by the contractors, support the PMU in preparation of procurement packages, bid documents, invitations, receipt and evaluation of bids. The consultants will also supervise and manage the construction with frequent site visits, carry out quality control, testing and reporting, monitor construction activities and certify contractor's progress claims.
Estimated assignment period	From Q2 2018 to Q1 2021
Financing sources	The loan will cover the consulting service contracts for successful completion of Project 2, KEIIP.
Activities	<p>The activities include, but not limited to:</p> <p><b>Survey and Design</b></p> <ul style="list-style-type: none"> <li>(i) Undertake necessary surveys and investigations on the project sites and its surroundings.</li> <li>(ii) Update maps and plans of the water supply and sewerage project sites.</li> <li>(iii) Review available secondary data, and update the data with primary sources.</li> <li>(iv) Report analysis of the existing assets before designing.</li> <li>(v) Prepare and update the detailed designs of the agreed technical options, technical specifications, cost estimates, and bid documents for subprojects which should be in accordance with the ADB procurement guidelines and standard bidding document.</li> <li>(vi) Carry out baseline surveys, and ensure the contractors comply with environmental management plans, and initial environmental examination.</li> <li>(vii) Assist the SMU officer/staff to update draft resettlement plans, due diligence reports and prepare any new safeguard documents as required</li> <li>(viii) Assist the SMU in the implementation of final resettlement plans</li> <li>(ix) Assist the SMU officer/staff to conduct public consultations and GAP implementation.</li> <li>(x) Carry out safeguard orientation and project GRM for PMU staff and contractor as required</li> <li>(xi) Assist SMU to carry out baseline surveys, and ensure the contractors comply with resettlement plan.</li> <li>(xii) Assist the PMU with all aspects of procurement including preparation of bid document, bid invitation, evaluation and award of work.</li> <li>(xiii) Assist the PMU to ensure the complete payment/ RP implementation <b>prior to the starts of civil work activities</b> for packages with identified IR impacts</li> <li>(xiv) Ensure compliance of contractors with ADB's procedures and guidelines for project implementation and management.</li> <li>(xv) Provide inputs including preparation of detailed project reports for advance preparations of subproject for subsequent loans, if any.</li> </ul>



	<p>(xvi) Ensure designs are implementable on ground with the path of least disturbance to other utilities.</p> <p>(xvii) Recommended design, technology, and process having the simplest and least expensive for operation and maintenance.</p> <p>(xviii) Prepare the operation and maintenance manual of the mechanical assets created by the project in collaboration with the respective contractors and the public communication and social development consultant.</p> <p><b>Supervision</b></p> <p>(i) Administer and manage the works and supply contracts.</p> <p>(ii) Provide most reasonable interpretation of technical specifications in consultation with the PMU.</p> <p>(iii) Verify the surveyed maps and design in the light of the ground situation and make necessary modifications, if required, with approval by the PMU.</p> <p>(iv) Scrutinize and improve the contractors' detailed work program and guide contractors for each contract.</p> <p>(v) Scrutinize the construction methods proposed by contractor including environmental; safety, personnel and public issues.</p> <p>(vi) Monitor the construction method by assessing the adequacy of the contractor's input materials, labor, equipment, and construction methods.</p> <p>(vii) Review and modify the detailed construction drawings as necessary during the works contractual period.</p> <p>(viii) Supervise and monitor construction work of each contract.</p> <p>(ix) Assist PMU/SMU in coordinating with contractor's schedule for civil works for safeguard monitoring</p> <p>(x) Conduct regular field visits to project sites during civil works activities and conduct independent assessment on safeguard compliance and provide recommendation to contractors/ SMU officer as necessary</p> <p>(xi) Monitor contractors' implementation of environmental standards, environmental and social safeguards, and gender action plans, and provide contractors with mitigation measures in case of failures.</p> <p>(xii) Assist SMU for any unanticipated impacts on involuntary resettlement during construction, prepare corrective action plan, inform and submit the plan to ADB</p> <p>(xiii) Assist, monitor and assess the GRM implementation and records keeping by the contractors and SMU staff, provide recommendation as required.</p> <p>(xiv) Establish quality assurance system including verification of source of material and certification.</p> <p>(xv) Carry out necessary quality control activities and certify that the quality of works conforms to the specifications and drawings.</p> <p>(xvi) Supervise the construction of the various contract packages for achieving the expected outputs of the project.</p> <p>(xvii) Record the work measurement and certify the contractors' interim and final bill of payment.</p> <p>(xviii) Assist third party inspections, if necessary, as decided by the employer.</p> <p>(xix) Review and finalize the "as built" drawings submitted by Contractor.</p> <p>(xx) Assist the employer in issue of completion certificates.</p> <p>(xxi) Assist for resolution of all contractual issues including examining the contractor's claims for variations/extensions, or additional compensations, etc., and prepare recommendations for approval by the employer.</p> <p>(xxii) Inspect the works at appropriate intervals during defect liability period and issue certifications.</p> <p>(xxiii) Prepare monthly project progress reports in accordance with the facility administration manual,</p> <p>(xxiv) Assist the PMU in collecting the baseline data from primary sources, and monitoring the progress as per the project performance monitoring system</p>
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	as well as the service level benchmarks defined by the Ministry of Urban Development, (xxv) Assist the PMU in other tasks as assigned by the PMU, (xxvi) Provide all necessary information to the PMC regarding project related issues and prepare solutions for recommendations to the Project Director, (xxvii) Accompany client in meetings with KMC and state government officials, police, local representatives, utility service providers as and when necessary.																																																																																																								
Output/report requirements	(i) Detailed project reports and detailed engineering designs, (ii) Monthly progress reports on physical, financial, safeguards and gender action plan compliance, (iii) Prepare and submit the semiannual safeguard monitoring report for PMU to be submitted to ADB for disclosure. (iv) Bidding documents for each contracts, (v) Manuals for operations of mechanical assets, (vi) Draft completion certificates, (vii) Third party inspection reports, (viii) Project performance monitoring system updates, (ix) Briefing notes to the Project Director on project related issues, (x) Inception report, progress reports, draft final report and final report.																																																																																																								
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	Note: Additional 2552 person-months inputs of support staff will be required. Source: Kolkata Municipal Corporation estimates.
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## OUTLINE OF ENVIRONMENTAL SAFEGUARDS MONITORING REPORT AND TEMPLATES

### A. INTRODUCTION

- (i) Overall project description and objectives
- (ii) Description of sub-projects
- (iii) Environmental category of the sub-projects
- (iv) Details of site personnel and/or consultants responsible for environmental monitoring
- (v) Overall project and sub-project progress and status

No.	Sub-Project Name	Status of Sub-Project				List of Works	Progress of Works
		Design	Pre-Construction	Construction	Operational Phase		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

### B. COMPLIANCE STATUS WITH NATIONAL/ STATE/ LOCAL STATUTORY ENVIRONMENTAL REQUIREMENTS

No.	Sub-Project Name	Statutory Environmental Requirements	Status of Compliance	Action Required

### C. COMPLIANCE STATUS WITH ENVIRONMENTAL LOAN COVENANTS

No. (List schedule and paragraph number of Loan Agreement)	Covenant	Status of Compliance	Action Required

### D. COMPLIANCE STATUS WITH THE ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN

- (i) Provide the monitoring results as per the parameters outlined in the EMP. Append supporting documents where applicable, including Environmental Site Inspection Reports.
- (ii) There should be reporting on the following items which can be incorporated in the checklist of routine Environmental Site Inspection Report followed with a summary in the semi-annual report send to ADB. Visual assessment and review of relevant site documentation during routine site inspection needs to note and record the following:
  - What are the dust suppression techniques followed for site and if any dust was noted to escape the site boundaries;
  - If muddy water was escaping site boundaries or muddy tracks were seen on adjacent roads;
  - adequacy of type of erosion and sediment control measures installed on site, condition of erosion and sediment control measures including if these were intact following heavy rain;
  - Are their designated areas for concrete works, and refuelling;
  - Are their spill kits on site and if there are site procedure for handling emergencies;
  - Is there any chemical stored on site and what is the storage condition?
  - Is there any dewatering activities if yes, where is the water being discharged;
  - How are the stockpiles being managed;
  - How is solid and liquid waste being handled on site;
  - Review of the complaint management system; and

- Checking if there are any activities being under taken out of working hours and how that is being managed.

#### E. OVERALL COMPLIANCE WITH CONTRACTOR ENVIRONMENTAL MANAGEMENT PLAN (CEMP)/ ENVIRONMENTAL MANAGEMENT PLAN (EMP)

No.	Sub-Project Name	EMP/ CEMP Part of Contract Documents (Y/N)	CEMP/ EMP Being Implemented (Y/N)	Status of Implementation (Excellent/ Satisfactory/ Partially Satisfactory/ Below Satisfactory)	Action Proposed and Additional Measures Required

#### F. APPROACH AND METHODOLOGY FOR ENVIRONMENTAL MONITORING OF THE PROJECT

- (i) Brief description on the approach and methodology used for environmental monitoring of each sub-project

#### G. MONITORING OF ENVIRONMENTAL IMPACTS ON PROJECT SURROUNDINGS (AMBIENT AIR, WATER QUALITY AND NOISE LEVELS)

- (i) Brief discussion on the basis for monitoring;  
(ii) Indicate type and location of environmental parameters to be monitored;  
(iii) Indicate the method of monitoring and equipment to be used; and  
(iv) Provide monitoring results and an analysis of results in relation to baseline data and statutory requirements.

*As a minimum the results should be presented as per the tables below.*

##### Air Quality Results

Site No.	Date of Testing	Site Location	Parameters (Government Standards)		
			PM10 µg/m3	SO2 µg/m3	NO2 µg/m3

##### Water Quality Results

Site No.	Date of Sampling	Site Location	Parameters (Government Standards)					
			pH	Conductivity µS/cm	BOD mg/L	TSS mg/L	TN mg/L	TP mg/L

##### Noise Quality Results

Site No.	Date of Testing	Site Location	LA <sub>eq</sub> (dBA) (Government Standard)	
			Day Time	Night Time

#### H. SUMMARY OF KEY ISSUES AND REMEDIAL ACTIONS

- (i) Summary of follow up time-bound actions to be taken within a set timeframe.

#### I. APPENDIXES

- (i) Photos  
(ii) Summary of consultations  
(iii) Copies of environmental clearances and permits  
(iv) Sample of environmental site inspection report  
(v) Other

**Table 1: Summary Monitoring Table**

<b>Impacts (List from IEE)</b>	<b>Mitigation Measures (List from IEE)</b>	<b>Parameters Monitored (As a minimum those identified in the IEE should be monitored)</b>	<b>Method of Monitoring</b>	<b>Location of Monitoring</b>	<b>Date of Monitoring Conducted</b>	<b>Name of Person Who Conducted the Monitoring</b>
<b>Design Phase</b>						
<b>Pre-Construction Phase</b>						
<b>Construction Phase</b>						
<b>Operational Phase</b>						

**J. SAMPLE ENVIRONMENTAL SITE INSPECTION REPORT**

Project Name  
Contract Number

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_  
TITLE: \_\_\_\_\_ DMA: \_\_\_\_\_  
LOCATION: \_\_\_\_\_ GROUP: \_\_\_\_\_

WEATHER CONDITION:

INITIAL SITE CONDITION: \_\_\_\_\_

CONCLUDING SITE CONDITION:

Satisfactory \_\_\_\_\_ Unsatisfactory \_\_\_\_\_ Incident \_\_\_\_\_ Resolved \_\_\_\_\_ Unresolved \_\_\_\_\_

INCIDENT:  
Nature of incident:

Intervention Steps:

Incident Issues

Resolution

Project Activity Stage	Survey	
	Design	
	Implementation	
	Pre-Commissioning	
	Guarantee Period	

**Inspection**

Emissions	Waste Minimization
Air Quality	Reuse and Recycling
Noise pollution	Dust and Litter Control
Hazardous Substances	Trees and Vegetation
Site Restored to Original Condition	Yes <input type="checkbox"/> No <input type="checkbox"/>

Signature

**Sign off**

Name  
Position

Name  
Position

## OUTLINE OF SOCIAL SAFEGUARDS MONITORING REPORT AND TEMPLATES

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.

### Checklist for Overall Monitoring of Resettlement Plan Implementation

	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>VII. 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		



	<b>Resettlement Plan Activities</b>	<b>Completed Y/N</b>	<b>Remarks</b>
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 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.

**SAMPLE GRIEVANCE REDRESS FORM**

(To be available in local language, 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>	

### CONSULTATION AND PARTICIPATION PLAN FOR PROJECT 2

CPP Activity	Target Stakeholders	Type of Participation	Objectives of the CPP Activity	Responsible Unit/Persons	Time Frame	Deliverable	Cost Estimate
<b>PRE PROJECT PHASE</b>							
Project orientation workshops for KMC staff, policy makers and other aligned departments (Social development, Health, Education)	40-50 government officials, policy makers and staff consisting of representatives from KMC and all relevant departments	<ul style="list-style-type: none"> <li>• Information sharing regarding the project</li> <li>• Consultation on convergence initiatives and shared responsibility</li> </ul>	<ul style="list-style-type: none"> <li>• Introduce the departments to the various project components and tentative time line of works</li> <li>• Demonstrate the link between improved water supply and sanitation with implicit benefits in health, environment, education, work force participation and gender based advantages</li> <li>• Present the community participation plan and activities under the gender action plan (GAP)</li> <li>• Discuss scope for synergizing efforts between various departments and leveraging opportunities</li> <li>• Recommend a joint stakeholder group to steer community participation plan.</li> </ul>	PMU supported by PCSDC	Year 1	Project orientation concept note and agenda  Participants list  A brief report on recommendations and way forward	\$300 X 5= \$1,500
State steering committee meetings	Steering committee representatives	<ul style="list-style-type: none"> <li>• Brief orientation on the need for a CPP and Gender Action Plan (GAP)</li> </ul>	<ul style="list-style-type: none"> <li>• Introduce the CPP and GAP to the steering committee members</li> <li>• Convey the importance of the same for the project's success</li> <li>• Highlight the importance of the steering committee in</li> </ul>	PMU supported by PCSDC	Year 1	Meeting minutes and participants list	\$200 X 3X5= \$3,000

CPP Activity	Target Stakeholders	Type of Participation	Objectives of the CPP Activity	Responsible Unit/Persons	Time Frame	Deliverable	Cost Estimate
			CPP and GAP implementation.				
Project orientation workshop for elected representatives from all 144 wards (36 wards* 4 Workshops)	Elected Representatives	<ul style="list-style-type: none"> <li>Information sharing regarding the project</li> </ul>	<ul style="list-style-type: none"> <li>To orient on the importance of water sanitation projects and link implicit benefits to the community members</li> <li>To understand the importance of their involvement in awareness raising and mitigation with the community members</li> </ul>	PMU supported by PCSDC	Year 1	Meeting minutes and participants list	\$500 X 4 = \$ 2000
15 community consultations and 12 Focused Group Discussions (FGD)	Community members and representatives (Eg, Aganwadi Workers, Neighborhood Groups, teachers)	<ul style="list-style-type: none"> <li>Information sharing regarding the project</li> </ul>	<ul style="list-style-type: none"> <li>To raise awareness on water conservation and need for sanitation</li> <li>To understand the importance of their involvement in awareness raising</li> </ul>	PMU supported by PCSDC	Year 1	Participant list and brief reports on content of discussion	\$250*27= \$6750
<b>IMPLEMENTATION PHASE</b>							
Contractor and loan consultants orientation workshops (one workshop every quarter)	Contractors and loan consultants	<ul style="list-style-type: none"> <li>Orientation and information sharing</li> </ul>	<ul style="list-style-type: none"> <li>Core labour standards including ones related exclusively to female laborers , HIV/AIDS, basic facilities at work sites</li> <li>Employment opportunities for local male and female workers</li> <li>Environmental and social safeguards and mitigation measures</li> <li>Assistance to be provided to Affected Persons (AP) during construction</li> </ul>	PMU supported by PCSDC	Yr1-5	Agenda  Participant list and brief reports on content of discussion	\$200*4*5= \$2000

CPP Activity	Target Stakeholders	Type of Participation	Objectives of the CPP Activity	Responsible Unit/Persons	Time Frame	Deliverable	Cost Estimate
			<ul style="list-style-type: none"> <li>• Gender sensitization and</li> <li>• The need to maintain sex disaggregated roster</li> </ul>				
Quarterly consultations with Grievance Redressal Committee (GRC) members at project sites	GRC members	Consultations	<ul style="list-style-type: none"> <li>• To consult with the GRC members and understand major community related issues and concerns</li> </ul>	PMU supported by PCSDC	Yr1-5	Participant list and brief report	\$200*4*5 = \$2000
Awareness programs for school children	Teachers and school children	Awareness program in schools	<ul style="list-style-type: none"> <li>• To create awareness on the need for conserving water and maintaining sanitation</li> </ul>	PMU supported by PCSDC	Yr1-5	Participant list and brief report	\$300*4=\$1200
Dissemination of behavior change communication (BCC) in project areas	Community members	<ul style="list-style-type: none"> <li>• Radio programs</li> <li>• Street plays</li> <li>• Consultations</li> <li>• Advertisement</li> </ul>	<ul style="list-style-type: none"> <li>• To impact community approach towards water and need for sanitation.</li> </ul>	PMU supported by PCSDC	Throughout implementation stage	BCC strategy paper	\$10,000
Consultations with affected persons on resettlement, entitlement, compensation issues, special protection measures for vulnerable	Affected Persons including females	<ul style="list-style-type: none"> <li>• Information sharing</li> <li>• Consultation</li> </ul>	<ul style="list-style-type: none"> <li>• Solicit views of affected persons including all female affected persons on resettlement and compensation; job opportunities and mitigate potential conflict</li> <li>• Inform about grievance redress mechanism and contacts</li> <li>• Discuss potential disruptions and assistance available</li> <li>• Gather recommendations</li> <li>• Agree on mitigation measures</li> </ul>	PMU supported by SMU and PCSDC	Throughout implementation stage	Brief consultation reports with participant list	\$3,000

CPP Activity	Target Stakeholders	Type of Participation	Objectives of the CPP Activity	Responsible Unit/Persons	Time Frame	Deliverable	Cost Estimate
<b>POST IMPLEMENTATION PHASE</b>							
Participatory review meetings with various stakeholders	All stakeholders	<ul style="list-style-type: none"> <li>Platform for interface between different stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>An interface for interaction between community members, community representatives, project partners and contractors</li> </ul>	PMU supported by PCSDC	Once every month for f six months	Minutes of consultations with participant list	\$2000
<b>Total for Consultation and Participation Plan</b>							<b>\$33,450<sup>1</sup></b>

ADB = Asian Development Bank; APs = Affected Persons; BCC = Behavior change communication; CPP = consultation and participation plan, FGD = Focused Group Discussions; GAP = Gender Action Plan; GRC = Grievance Redressal Committee; NGHs = Neighborhood Groups, SDU = Social Development Unit; ULBs = urban local bodies.

<sup>1</sup> Additional budget has been allocated in the Public Communication and Social Development Consultants (PCSDC) consultants engaged under Project 1.

### CALCULATING CLIMATE FINANCING FOR PROJECT 2

Project Subcomponent	Link to Climate Risks Identified in the Project Climate Risk Assessment and Management Reporting	ADB financing <sup>1</sup> (\$m)	Non-Qualifying Costs	Qualifying Costs
<b>Output 1a: Water Supply through DMAs (Civil works, equipment and goods pertaining)</b>	Climate assessment suggests a strong likelihood that the supply of water for city of Kolkata will likely be reduced by altered precipitation patterns and increased temperature. The majority of the water supply component of Project 2 is designed to ensure the sustainable management of water resources. Water resilience will be achieved by demarcating KMC's distribution network into 150 DMAs, installing bulk meters in secondary network and household meters in selected areas, conducting extensive NRW in the pilot area (East Kolkata) and Joka, where the system will also be changed to a DMA based one, and across the city with an aim to reduce physical water losses from around 50% to 25%, and availing water saved. The DMA approach is characterized by modular, smaller units of distribution systems, which makes the systems more resilient to external shocks. Therefore civil works related to DMAs is a <b>qualifying cost</b> .	54.41		54.41
<b>Output 1b: Water supply through conventional systems (Civil works, equipment and goods)</b>	The water supply distribution system augmentation works in Joka, where additional transmission lines and pumping stations will be constructed to augment water supply, such as additional transmission mains, pumping stations, totaling \$36.4 million of ADB financing, and shown in packages WS15, WS16, WS18 and WS24 of the procurement plan for Project 2), were considered <b>non-qualifying</b> because they use a conventional approach to water supply.	32.65	32.65	
<b>Output 2: (Civil works, equipment and goods pertaining to) sewerage and drainage coverage in most flood prone areas of the city as identified in the drainage masterplan</b>	Although it is widely recognized that Kolkata is among the world's most flood prone cities and that the impacts of climate change will further exacerbate this problem, there were no design modifications made to the proposed drainage system and the primary causes of flooding in the project area is difficult to attribute to climate change. While the project has adaptation benefits to the local communities, the intent of the primary project is delivery of a front-line urban service, namely drainage and sanitation, and not to address CC vulnerability. Therefore this component is a <b>non-qualifying cost</b> .	93.61	93.61	

<sup>1</sup> Only base costs have been considered in the calculation.

Project Subcomponent	Link to Climate Risks Identified in the Project Climate Risk Assessment and Management Reporting	ADB financing <sup>1</sup> (\$m)	Non-Qualifying Costs	Qualifying Costs
<b>Output 3a: Financial management and project management capacity further developed attributable to the DMA component<sup>2</sup></b>	This portion of the project management relates to the ensuring water sustainability and the judicious management of water resources considering projections of reduced water availability in the future. Therefore proportionate cost under this output is <b>qualifying cost</b> .	2.07		2.07
<b>Output 3b: Financial management and project management capacity further developed attributable to project outputs other than the DMA component</b>	Portion of the project management related to non-qualifying activities, therefore proportionate cost under this output is non- <b>qualifying cost</b> .	5.15	5.15	
<b>Subtotal</b>	ADB Financing of Base Cost	187.88	131.41	<b>56.47</b>
	ADB financing of Contingencies	12.12		
<b>TOTAL ADB Financing</b>		<b>200</b>		

ADB = Asian Development Bank, DMA = district metering area, KMC = Kolkata Municipal Corporation, NRW = nonrevenue water, S&D = sewerage and drainage.

<sup>2</sup> In addition, technical assistance of \$1 million is proposed under the UCCRTF funds, to assist in strengthening climate resilience of KMC.





GAP Activities and Targets/Indicators	Progress to Date		Issues and Challenges (Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc.)
	Progress for the Quarter (Activities and achievements – quantitative and qualitative for the current quarter)	Cumulative Progress (Activities and achievements – quantitative and qualitative for the past and current quarters)	
to assist qualified candidates with application procedure- with special focus on equally qualified female candidates			
<b>Activity 1.4</b> Provide employment to female staff at KMC's new customer care centres in each of the 16 borough			
<b>Target/Indicator 1.4a:</b> At least 33% of staff employed in customer care centres in the 16 boroughs of KMC are women			
<b>Target/Indicator 1.4b:</b> Sex disaggregated data on applications received and new staff inducted in customer care centres is maintained and routinely updated			
<b>Activity 1.5</b> Conduct training on social leadership, and behavioural change on health, hygiene and sanitation, for Neighbourhood Groups(NHGs) and Self Help Groups (SHG) members			
<b>Target/Indicator 1.5:</b> 16 numbers of BCC and social leadership training events organised- one in each borough and at least 50 NHG and SHG members trained (Target: 50% female) (2015 baseline: 0)			
<b>Activity 1.6</b> Conduct vocational trainings for community members in plumbing, minor repair works and meter reading			
<b>Target/Indicator 1.6:</b> At least 30 female community members participated in vocational training in plumbing, minor repair works and meter reading (2015 baseline: 0)			
<b>Output 2. Sewerage and drainage extension to peripheral areas continued</b>			
<b>Activity 2.1</b> Build capacities of contractors in gender sensitivity, and encourage			

GAP Activities and Targets/Indicators	Progress to Date		Issues and Challenges (Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc.)
	Progress for the Quarter (Activities and achievements – quantitative and qualitative for the current quarter)	Cumulative Progress (Activities and achievements – quantitative and qualitative for the past and current quarters)	
contractors to engage women labourers and supervisors			
<b>Target/Indicator 2.1a:</b> Two half day trainings for contractors on gender sensitivity and related contract provisions			
<b>Target/Indicator 2.1b:</b> Contractors maintain sex disaggregated data on labour force participation and field supervisors			
<b>Output 3. Financial and project management capacity further developed</b>			
<b>Activity 3.1</b> Conduct capacity development trainings on planning and disaster management for KMC S&D department			
<b>Target/Indicator 3.1:</b> 100% eligible female staff trained (2015 Baseline: n.a.)			
<b>Activity 3.2</b> Train (on a yearly basis) PMU and concerned KMC water supply staff on gender mainstreaming, prevention of sexual harassment at work place, linkage between water, sanitation, health and GAP monitoring requirements			
<b>Target/Indicator 3.2a:</b> At least 1 training conducted every year (100% eligible staff) (2015 baseline: 0)			
<b>Target/Indicator 3.2b:</b> A pre and post assessment questionnaire designed and administered in each training to evaluate the effectiveness of the training, and assessment of findings documented and shared			
<b>Activity 3.3</b> Collate and monitor in PPMS sex disaggregated and gender specific data on DMF indicators for gender			
<b>Target/Indicator 3.3:</b> 100% of DMF gender indicators are monitored and reported in a			

GAP Activities and Targets/Indicators	Progress to Date		Issues and Challenges (Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc.)
	Progress for the Quarter (Activities and achievements – quantitative and qualitative for the current quarter)	Cumulative Progress (Activities and achievements – quantitative and qualitative for the past and current quarters)	
sex disaggregated manner (2015 baseline: 0)			
<b>Activity 3.4</b> Monitor and report GAP implementation every quarter			
<b>Target/Indicator 3.4:</b> GAP report submitted every quarter (2015 baseline: 0)			