

# Project Administration Manual

Project Number: 42229-016  
Loan Number: {XXXX}  
May 2018

## Bhutan: Secondary Towns Urban Development Project

## ABBREVIATIONS

ADB	–	Asian Development bank
CEMP	–	contractor's EMP
DDR	–	due diligence report
DES	–	Department of Engineering Services
EMP	–	environmental management plan
FY	–	fiscal year
FHH	–	female-headed households
GAP	–	gender action plan
GEMS	–	gender equality monitoring system
GRM	–	grievance redress mechanism
IEC	–	information, education and communication
IEE	–	initial environmental examination
MLD	–	million liters a day
MOWHS	–	Ministry of Works and Human Settlements
NCWC	–	National Commission of Women and Children
NGO	–	nongovernment organization
O&M	–	operation and maintenance
PIU	–	project implementation unit
PMU	–	project management unit
PMSC	–	project management and supervision consultants
PPMS	–	project performance management system
RAA	–	Royal Audit Authority
SJM	–	Samdrup Jongkhar Municipality
STUDP	–	Secondary Towns Urban Development Project
ULB	–	urban local bodies
WSD	–	Water and Sanitation Division
WTP	–	water treatment plant

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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 Department of Engineering Services (Water and Sanitation Division) of the Ministry of Works and Human Settlements (MOWHS), through the project management unit (PMU) and the project implementation units (PIUs) are 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 DES, under MOWHS, through the PMU and PIUs of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

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

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



## I. PROJECT DESCRIPTION

### A. Rationale

1. With Bhutan's current rate of urbanization, it is expected that 50% of Bhutan's population will be urban by 2030 and about 75% by 2040.<sup>1</sup> Asian Development Bank's (ADB) development assistance for the last two decades has focused on the development of the two major towns of Bhutan- Thimphu, the capital city and Phentsholing, the main trading gateway with India handling over 80% of the country's trade.<sup>2</sup>

2. Bhutan's secondary towns are growing but are constrained by infrastructure and basic urban services deficits resulting from inadequate urban planning, weak urban institutions and municipal finances, limited budgetary support, and limited local capabilities for urban infrastructure development. The average duration of water supply in most of the secondary towns is between 2–12 hours daily. Nonrevenue water ranges from 30% to 70%. There is no piped sewerage system in almost 55% of the secondary towns. Water tariffs can cover only around 20% of the operation and maintenance cost of water supply.<sup>3</sup> The unbalanced urbanization is a key concern of the government, which is committed to balanced urbanization.<sup>4</sup>

3. To enable balanced and equitable growth, the government's strategy for urban development aims to develop secondary towns into regional growth centers building upon trade, transport, logistics, and manufacturing.<sup>5</sup> The secondary towns need substantial improvements to realize the government's vision.

4. **Secondary Towns Urban Development Project.** The project will support urban infrastructure developments in two secondary towns Sarpang and Samdrup Jongkhar in the southern border region of Bhutan, which are targeted as growth centers with high potential (para. 3) and the largest urban center in eastern Bhutan—Trashigang, which has gained importance with the recent opening of Yonphula airport supported by ADB.<sup>6</sup> These towns have been selected based on their strategic economic importance. These towns are already undertaking planned urban expansions, including the development of a new satellite town in Sarpang.<sup>7</sup> There is an urgent need to improve basic urban services and expand infrastructure to the newly planned town extensions to accommodate the growing demand.

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<sup>1</sup> ADB. 2013. *Bhutan Transport 2040, A Strategic Vision*. Manila; and Government of Bhutan. 2017. *Strategy for Gross National Happiness 2028*. Thimphu. As per National Statistics Bureau of Bhutan, Royal Government of Bhutan. 2017. *Bhutan Living Standards Survey Report*. Thimphu, the current population of the country stands at 692,895.

<sup>2</sup> ADB. [Kingdom of Bhutan: Urban Infrastructure Improvement Project](#); ADB. [Kingdom of Bhutan: Urban Infrastructure Development Project](#); ADB. [Kingdom of Bhutan: Urban Infrastructure Project](#); ADB. [Kingdom of Bhutan: South Asia Subregional Economic Cooperation Road Connectivity Project](#); and ADB. [Kingdom of Bhutan: South Asia Subregional Economic Cooperation Transport, Trade Facilitation, and Logistics Project](#).

<sup>3</sup> ADB. 2016. *Sector Assessment Report*. Consultant's report. Manila (TA 8551-BHU).

<sup>4</sup> The Kingdom of Bhutan, Ministry of Works and Human Settlements. 2008. *Bhutan National Urban Strategy*. Thimphu. Although there is no official definition of secondary towns in Bhutan, these can be considered as around 30 towns (excluding Thimphu and Phuentsholing) with populations of around 4,000 or more. Thimphu and Phuentsholing are classified as national or regional cities.

<sup>5</sup> The Kingdom of Bhutan. 2010. *Economic Development Policy of the Kingdom of Bhutan*. Thimphu.

<sup>6</sup> ADB. [Kingdom of Bhutan: Air Transport Connectivity Enhancement Project](#). The loan supported enhancements and upgrades to the airport, which was not functional at that time.

<sup>7</sup> Town populations: Samdrup Jongkhar 11,350; Sarpang 3,100 (will expand to 5,000 through the new satellite town development); and Trashigang 4,400.

5. The project will support water supply improvements and network expansion in all three towns, expand sewerage network in Samdrup Jongkhar (directly complementing government's ongoing investments in waste water treatment), and provide targeted investments in roads and drainage for a new town development in Sarpang (para. 4). The project will complement ongoing infrastructure developments being undertaken by the government and ADB in the three towns.<sup>8</sup> Improved infrastructure under the project will provide safe and continuous water supply, including sanitation and health benefits to the residents, especially the poor, women, and children. Infrastructure investments will be complemented by strengthening of institutional capacity for the management and operation and maintenance (O&M) of municipal infrastructure assets; and development of water tariff guidelines.

## **B. Impacts and Outcome**

6. The project is aligned with the following impact: balanced and sustainable development of human settlements in Samdrup Jongkhar, Sarpang, and Trashigang ensured.<sup>9</sup> The project will have the following outcome: quality, efficiency, and sustainability of urban services improved.

## **C. Outputs**

7. **Output 1: Urban infrastructure expanded and/or upgraded.** The project will support (i) construction of 46.8 km of new water transmission lines and 36.7 km of new water distribution pipelines, and upgrading of 2.5 km of existing pipelines; (ii) construction of six new ground-level service reservoirs with total storage capacity of 1,300 cubic meters; (iii) construction of two new water intake structures with 3.5 million liters per day (MLD) capacity; (iv) commissioning of one new water treatment plant with 1.2 MLD capacity and augmenting one water treatment plant from 0.6 MLD to 1.0 MLD capacity; (v) provision of 800 new metered water supply connections (685 residential connections and 115 institutional connections), covering 100% of the population in the project area; (vi) construction of 2.5 km of sewage collection pipelines with 250 new connections (210 residential connections and 40 institutional connections), covering 100% of the population in the project area in Samdrup Jongkhar; and (vii) provision of 9 km of new and improved drains and 3.74 km of new roads in Sarpang. Features of the subprojects include improving services in existing town areas, expanding service coverage to the recently planned town extensions, enhancing climate resilience of facilities, and completing water supply and sewerage infrastructure in Samdrup Jongkhar, building on the ongoing ADB loan and government interventions.<sup>10</sup> A key feature is inclusiveness, whereby water supply and sewerage connections will be provided free of charge to benefit 100% of the population in the project area (including the poor and vulnerable).

8. **Output 2: Capacity of institutions and local communities strengthened.** This includes (i) developing a staged water tariff framework for the three project towns; (ii) conducting

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<sup>8</sup> The project's water supply investments in Samdrup Jongkhar (network and household connections) will complement the investments under ADB's ongoing Urban Infrastructure Project (footnote 2), which is financing upstream infrastructure (intake and water supply treatment) and are expected to be completed by mid-2018. The sewerage network investments in Samdrup Jongkhar will complement government's ongoing investments in waste water treatment. In Trashigang and Sarpang, the loan will complement the government's recent investments in water treatment.

<sup>9</sup> Government of Bhutan, Gross National Happiness Commission. 2013. *Eleventh Five-Year Plan (2013–2018)*. Thimphu.

<sup>10</sup> Design features include riverine flood protection for intakes using three-dimensional modeling for safe siting, anchoring to rock faces, and providing adequate protection works. Transmission lines will be secured from river flooding using suspension crossings and bracing structures will provide enhanced resilience to landslides.



awareness-raising campaigns for at least 3,500 people (40% women) on gender and public-health-related issues such as water conservation; solid-waste segregation and reduction; and water, sanitation, and hygiene; (iii) improving knowledge and skills on O&M and asset management of municipal infrastructure for 50 staff (at least 25% women) from the project management unit (PMU), project implementation units, and other municipal units; and (iv) monitoring project gender equality results through the gender equality monitoring system of the National Commission for Women and Children.

## II. IMPLEMENTATION PLANS

### A. Project Readiness Activities

9. The government and ADB have jointly agreed to the schedule summarized in Table 1 below.

**Table 1: Project Readiness Activities**

Indicative Activities	2017	2018				Responsibility
	Q4	Q1	Q2	Q3	Q4	
Advance procurement actions-IFBs published (2)	x	x				PMU, PIUs, Individual consultants (detailed designs)
Retroactive financing actions			x	x		MOWHS, MoF
Establish project implementation arrangements	x	x				PMU, PIUs
Establish GRM	x					MOWHS, PIUs
ADB Board approval			x			ADB
Government legal opinion provided			x			ADB, Government
Loan signing				x		
Loan effectiveness				x		ADB, MOWHS
PMSC mobilized				x		MOWHS

ADB = Asian Development Bank, IFB = invitation for bids, GRM = grievance redress mechanism, MoF = Ministry of Finance, MOWHS = Ministry of Works and Human Settlements, PIU = project implementation unit, PMU = project management unit, PMSC = project management and supervision consultants, Q = quarter.

Source: Asian Development Bank.

### B. Overall Project Implementation Plan

10. The project is expected to be approved in second quarter (Q2) 2018. After loan effectiveness, anticipated in Q3 2018, the project implementation period is 5 years. The project is expected to be physically completed by July 2023. Monitoring of project performance and outcome will be until December 2023. The project's overall implementation plan is in Table 2.

LAP = local area plan, NGO = nongovernment organization, PIU = project implementing unit, PMU = project management unit.

Source: Asian Development Bank.

### III. PROJECT MANAGEMENT ARRANGEMENTS

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

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

Project Implementation Organizations	Management Roles and Responsibilities
Executing agency, PMU, DES (WSD), MOWHS	<ul style="list-style-type: none"> <li>(i) Oversee the establishment of agreed institutional arrangements and policy requirements under the project;</li> <li>(ii) Ensure timely release of funds/ payments for the project;</li> <li>(iii) Giving administrative sanction for IFB for subproject;</li> <li>(iv) Monitoring physical and financial progress;</li> <li>(v) Liaise and correspond with ADB on all issues related to the loan;</li> <li>(vi) Assist the implementing agencies in planning institutional reform component loan (tariff reforms);</li> <li>(vii) Endorse and submit subproject scope and cost to the steering committee;</li> <li>(viii) Carrying out project planning, involving updating of project schedule;</li> <li>(ix) Prepare (with consultant support) detailed engineering designs, technical and bidding documents for subprojects;</li> <li>(x) Coordinating with national and state agencies to resolve any interdepartmental issues;</li> <li>(xi) Establish a sub-advance account with a commercial bank;</li> <li>(xii) Approve training and capacity building program;</li> <li>(xiii) Monitor physical and non-physical investment activities under the project;</li> <li>(xiv) Assisting the PIUs in updating the IEEs and implementation of EMPs and ensuring these are included in the bidding documents;</li> <li>(xv) Monitor implementation of safeguards plans and GAP, guide PIUs, as and when necessary, and prepare reports;</li> <li>(xvi) Recruit consultants;</li> <li>(xvii) Recruit NGOs;</li> <li>(xviii) Manage program management and supervision consultants and other consultants and mobilize and demobilize as an employer;</li> <li>(xix) Conducting periodical reviews of the physical and financial progress, and compliance to contract conditions;</li> <li>(xx) Prepare and submit: <ul style="list-style-type: none"> <li>(a) Reports to the steering committee for consideration and approval;</li> <li>(b) Reports mandated under the loan agreement;</li> <li>(c) Disbursement application to ADB; and</li> <li>(d) Safeguards plans, GAP and corrective action plans consistent with safeguard frameworks.</li> </ul> </li> <li>(xxi) Undertaking the Reporting Requirements of the projects encompassing all the statutory requirements of the ADB and/or the government;</li> <li>(xxii) Facilitate external audit and submit reports of external auditor to ADB;</li> <li>(xxiii) Disseminate information related to the project to the public and media;</li> <li>(xxiv) Establish and maintain a project performance monitoring system project level;</li> <li>(xxv) Seek support from NCWC for establishment of Project GEMS and maintain the GEMS;</li> <li>(xxvi) Capacitating PIUs to undertake project implementation;</li> <li>(xxvii) Establishing and monitoring quality assurance and control procedures, in coordination with PIUs;</li> <li>(xxviii) Procure works, goods and service for implementation of the project;</li> <li>(xxix) Plan, implement, and monitor:</li> </ul>

Project Implementation Organizations	Management Roles and Responsibilities
	<p>(a) Public relations activities;  (b) Gender mainstreaming initiatives; and  (c) Safeguard compliance activities.</p> <p>(xxx) Prepare and submit periodic progress reports to ADB and maintaining and updating the PPMS;  (xxxi) Maintain project accounts and submit consolidated monthly reports to Accounts Section, MOWHS;  (xxxii) Ensure timely submission of audited project financial statements to ADB;  (xxxiii) Obtain statutory clearances;  (xxxiv) Coordinate for obtaining right of way clearances with related state and national agencies (if required);  (xxxv) Instituting the central grievance redress committee at PMU level (third tier of GRM) and monitoring and reporting on grievances at all levels;  (xxxvi) Make payments to consultants and internal expenses;  (xxxvii) Maintain subproject and contract-level accounting; and  (xxxviii) Prepare and submit project completion report to ADB.</p>
<p>Project steering committee, comprising:</p> <p>(i) Secretary, MOWHS, Chairperson;  (ii) Project Director, DES;  (iii) Chief WSD;  (iv) GNHC representative;  (v) MOF (DMEA) representative;  (vi) NCWC representative;  (vii) Mayor and/ or Executive Secretary of SJM;  (viii) Dzongda (district administrator) or Dzongrab (deputy district administrator) of Trashigang and Sarpang;  (ix) Director, Directorate Services (MOWHS); and  (x) ADB representative.</p>	<p>(i) Provide guidance for and ensure the implementation of Government and ADB policies for the proposed Project;  (ii) Assist in resolving any interagency implementation problems;  (iii) Review relevant reports and audit statements from PMU and Samdrup Jongkhar, Sarpang, and Trashigang PIU, as and when required;  (iv) Ensure adherence to government strategies for the urban sector;  (v) Review and approve any ministerial level project implementation matters;  (vi) Ensuring that conditions of the loan agreement with ADB are met;  (vii) Provide necessary interface with government departments to convey project recommendations for institutional improvements and tax, tariff and user fee increases to meet O&amp;M cost; and  (viii) Fast track resolution of any implementation matters.</p>
<p>Sarpang and Trashigang dzongkhags (district administrations) and Samdrup Jongkhar thromde (municipal government)</p> <p>Project Implementation Unit field office in Trashigang:</p> <p>(i) Project manager (municipal engineer);  (ii) Environment officer;  (iii) Internal auditor cum gender focal person;  (iv) One project technician (water supply); and  (v) Office assistant.</p> <p>Project Implementation Unit field office in Samdrup Jongkhar:</p>	<p>(i) Implementation of physical investment activities and managing the contractors and project engineer as an employer  (ii) Construction supervision (including commissioning and rectifications during defect liability period);  (iii) Carry out day-to-day contract management functions of the project which shall include compliance to the requirements of the contract documents;  (iv) Hand over construction sites to the winning contractor(s) within the stipulated time;  (v) Monitor the QAQC plan under the contracts;  (vi) Facilitating collection of data for detailed engineering design;  (vii) Coordinating with various department, utility and urban local bodies relating to issues related to implementation of subproject;  (viii) Verifying the measurements, verifications and certifications of all payments to the contractors, consultants and suppliers or any other entities which are legal claimant of the payments towards the project;  (ix) Maintaining the respective subproject account of payments to contractor, internal expenses or others;  (x) Implement environment management plan and gender action plan;</p>

Project Implementation Organizations	Management Roles and Responsibilities
(i) Project manager (municipal engineer); (ii) Two engineers; (iii) Accountant; (iv) Administrative assistant; (v) One water supply technician; and (vi) Environment cum gender officer.  Project Implementation Unit field office in Sarpang:  (i) Project manager (municipal engineer); (ii) One engineer (post vacant); (iii) One technician (post vacant); and (iv) Environment cum gender officer.	(xi) Get NOC of lands for the project from the competent authorities (if required); (xii) Obtaining right-of-way clearances (if required); (xiii) Assisting the PMU and external auditors in their review and preparing necessary documents; (xiv) Ensuring that the project works are carried out in accordance with ADB environmental, social, and resettlement safeguards and policies; (xv) Preparing progress report on contract implementation and GAP, social, environmental monitoring and submit to PMU on monthly basis; (xvi) Supervising the work of consultants posted at PIU level; (xvii) Instituting first and second level of GRM and ensuring prompt grievance resolution, recording of complaints and resolutions and furnishing details of the same to the PMU through quarterly progress reports; (xviii) Undertaking corrective actions identified during review missions; (xix) Taking over the delivery of the contract along with the defects listings if applicable; (xx) Ensuring the rectifications of the noted defects during the defect liability period; and (xxi) Preparing fund requirement projections and submitting to PMU as and when required.
South Asia Department, Urban Development and Water Division Asian Development Bank	(i) Provide guidance for and ensure the implementation of Government and ADB policies for the proposed Project; (ii) Monitor overall project implementation; (iii) Conduct field review missions, midterm review missions and project completion mission to assess project implementation progress for all subcomponents, compliance of loan covenants and implementation status of tariff reforms; (iv) Review and approve procurement packages; (v) Review and approve disbursements; (vi) Disclosing program information to the public; and (vii) Facilitating knowledge sharing.

ADB = Asian Development Bank, DES = Department of Engineering Services, DMEA = Department of Macroeconomic Affairs, EMP = environmental monitoring plan, GAP = gender action plan, GEMS = gender equality monitoring sheet, GNHC = Gross National Happiness Commission, GRM= grievance redress mechanism; IEE = initial environmental examination, IFB = invitation for bids, MOWHS, Ministry of Works and Human Settlements, NOC = no objection certificate, NGO = nongovernment organization, NCWC = National Commission for Women and Children, PIU = project implementation unit, PMU = project management unit, PPMS = project performance management system, QAQC = quality assurance, quality control, SJM = Samdrup Jongkhar Municipality, WSD = Water and Sanitation Division.

Sources: ADB, executing agency, implementing agency.

<sup>a</sup> The Project Steering Committee will be created to facilitate and ensure adequate coordination among relevant stakeholders. For efficient project implementation, the central and local PSCs will be set up within 3 months of loan effectiveness.

## B. Key Persons Involved in Implementation

### Executing Agency

Department of Engineering Services (DES), Ministry of Works and Human Settlements, The Kingdom of Bhutan

Officer's Name: Mr. Karma Dupchuk  
 Position: Director, DES  
 Telephone: 975-2-321828  
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Staff Name: Sekhar Bonu

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Mission Leader

Staff Name: Shinjini Mehta

Position: Urban Development Specialist

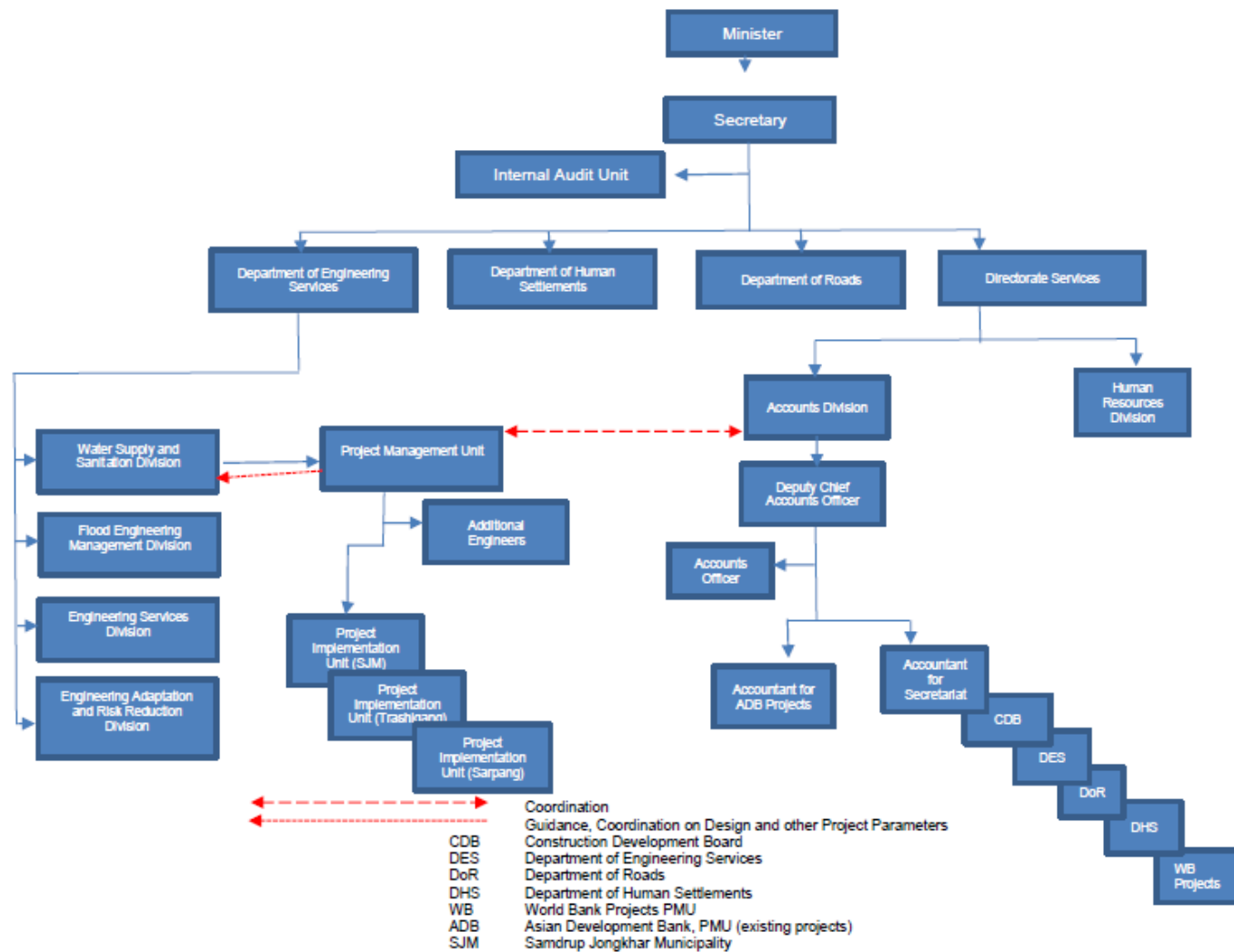
Telephone No.: +632 632 5779

Email address: [smehta@adb.org](mailto:smehta@adb.org)

**C. Project Organization Structure**

11. The project organization structure showing the reporting lines and key organizations involved in implementation is shown in Figures 1 and 2.

**Figure 1: Project Implementation Arrangements - Setup of Ministry of Works and Human Settlements**



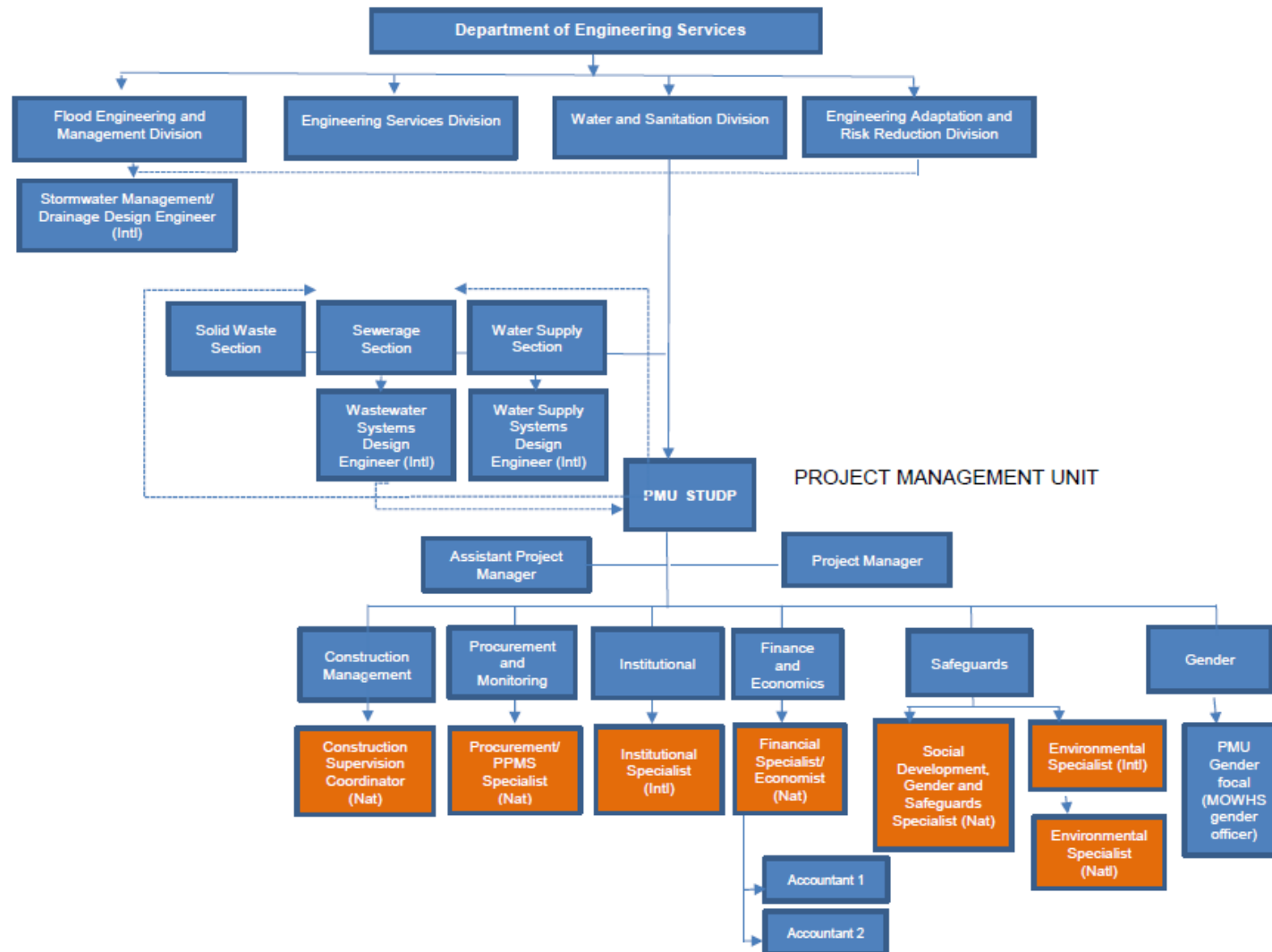
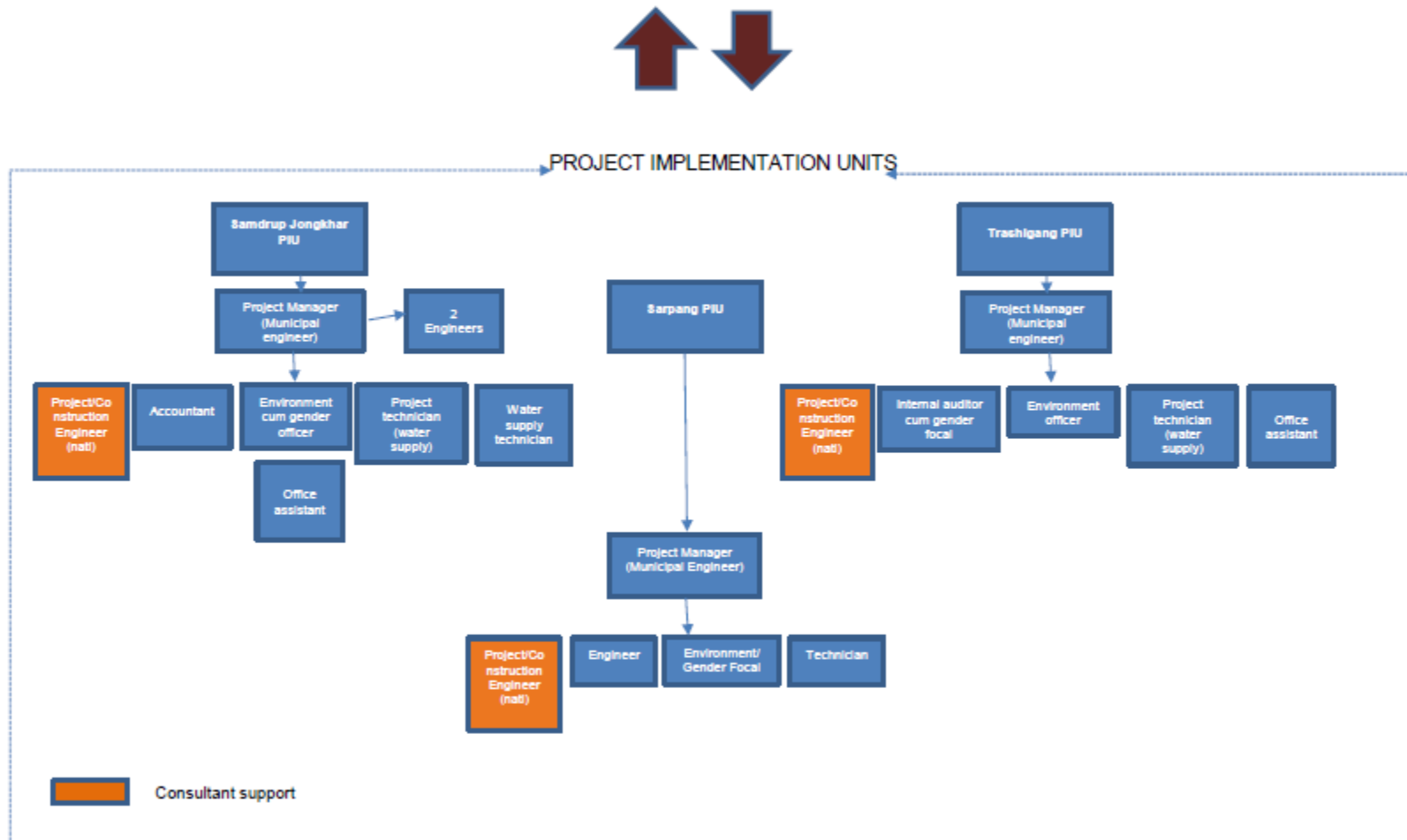




Figure 2: Project Implementation Arrangements - Setup of Project Implementation Units



#### IV. COSTS AND FINANCING

12. The proposed STUDP is estimated to cost \$12 million. The Kingdom of Bhutan requested a loan of \$10 million from ADB's concessional ordinary capital resources to help finance the project. The loan will have a 32-year term, including a grace period of 8 years; an interest rate of 1.0% per year during the grace period and 1.5% per year thereafter; and such other terms and conditions set forth in the draft loan and project agreement. The investment plan is in Table 4.

**Table 4: Investment Plan (\$ million)**

Item	Amount <sup>a</sup>
<b>A. Base Cost<sup>b</sup></b>	
1. Urban infrastructure expanded and/or upgraded	9.5
2. Sector and institutional capacity, and service delivery strengthened	0.7
<b>Subtotal (A)</b>	<b>10.2</b>
<b>B. Contingencies<sup>c</sup></b>	<b>1.4</b>
<b>C. Financing Charges During Implementation<sup>d</sup></b>	<b>0.4</b>
<b>Total (A+B+C)</b>	<b>12.0</b>

<sup>a</sup> In early-2018 prices; Exchange rate of \$1 = Nu65 is used.

<sup>b</sup> Includes taxes and duties of \$0.26 million to be financed from government resources.

<sup>c</sup> Physical contingencies are computed at 10.0% for civil works. Price contingencies are computed at 1.5%-1.6% on foreign exchange costs and 5.4% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

<sup>d</sup> Interest during construction for the ADB loan has been computed at 1.0% per annum.

Source: Asian Development Bank estimates

13. The government will contribute \$2 million to the investment costs of the proposed STUDP to finance; (i) taxes and duties, (ii) land acquisition and resettlement costs, (iii) incremental administrative costs, and (iv) part of the civil works and contingencies; and will provide the loan proceeds and counterpart funds for the implementation of the project. The financing plan is in Table 5.

**Table 5: Financing Plan**

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Ordinary capital resources (concessional loan)	10.0	83.3
Government	2.0	16.7
<b>Total</b>	<b>12.0</b>	<b>100.0</b>

Source: Asian Development Bank estimates.

#### A. Cost Estimates Preparation and Revisions

14. The cost estimates have been prepared based on the detailed project reports, where available, or other relevant details of the subprojects. The cost estimate model was prepared using Microsoft Excel and, is available with the project team and PMU. The cost estimates shall be further revised during the implementation by the PMU.

#### B. Key Assumptions

15. The following key assumptions underpin the cost estimates and financing plan:

- (i) Exchange rate: Nu65 = \$1.00 (as of January 2018)

- (ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows:

**Table 6: Escalation Rates for Price Contingency Calculation**

<b>Item</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>Average</b>
Foreign rate of price inflation	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%
Domestic rate of price inflation	1.5%	1.5%	1.5%	1.6%	1.6%	1.6%	1.6%

Source(s): Asia Development Bank estimates.

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

### C. Detailed Cost Estimates by Expenditure Category

**Table 7: Cost Estimates by Expenditure Category**  
(\$ million)

Item	Foreign Exchange	Local Currency	Total Cost	Total Net Cost	Tax	% of Total Base Cost
<b>A. Investment Costs</b>						
1. Civil works	2.70	5.65	8.34	8.10	0.24	81.6%
2. Land acquisition and resettlement	-	0.08	0.08	0.08	-	0.8%
3. Project management and capacity development	0.35	0.75	1.10	1.10		10.8%
a. Project management and supervision	0.33	0.70	1.03	1.03		10.0%
b. Capacity development (in-country only)	0.02	0.05	0.07	0.07	-	0.7%
<b>Subtotal (A)</b>	<b>3.05</b>	<b>6.47</b>	<b>9.53</b>	<b>9.25</b>	<b>0.24</b>	<b>93.1%</b>
<b>B. Recurrent Costs</b>						
1. Incremental administrative costs	-	0.70	0.70	0.68	0.02	6.9%
<b>Subtotal (B)</b>	<b>-</b>	<b>0.70</b>	<b>0.70</b>	<b>0.68</b>	<b>0.02</b>	<b>6.9%</b>
<b>Total Base Cost</b>	<b>3.05</b>	<b>7.18</b>	<b>10.23</b>	<b>9.93</b>	<b>0.26</b>	<b>100.0%</b>
<b>C. Contingencies</b>						
1. Physical contingencies	0.26	0.55	0.81	0.81	-	7.9%
2. Price contingencies	0.18	0.41	0.59	0.59	-	5.8%
<b>Subtotal (C)</b>	<b>0.44</b>	<b>0.96</b>	<b>1.40</b>	<b>1.40</b>	<b>-</b>	<b>13.7%</b>
<b>D. Financing Charges During Implementation</b>						
1. Interest during construction	0.37		0.37	0.37	-	3.6%
<b>Subtotal (D)</b>	<b>0.37</b>	<b>-</b>	<b>0.37</b>	<b>0.37</b>	<b>-</b>	<b>3.6%</b>
<b>Total Project Cost (A+B+C+D)</b>	<b>3.86</b>	<b>8.13</b>	<b>12.00</b>	<b>11.71</b>	<b>0.26</b>	<b>117.3%</b>

Notes: 1. Numbers may not sum precisely because of rounding.

2. The costs of the actual audits of the program are minor and will be borne by the government.

3. Minor environmental monitoring and implementation of resettlement plan and gender action plan cost are absorbed in B1. ADB will not finance land acquisition cost.

Source: Asian Development Bank estimates.

**D. Allocation and Withdrawal of Loan Proceeds****Table 8: Allocation and Withdrawal of Loan Proceeds**

<b>No.</b>	<b>Item</b>	<b>Total Amount Allocated for ADB Financing (SDR) (\$ in parenthesis)</b>	<b>Basis for Withdrawal from the Loan Account</b>
1	Civil works	5,032,000 (7,327,000)	87.8% of total expenditure claimed
2	Project management and capacity development (Project management and supervision, capacity development)	756,000 (1,100,000)	100% of total expenditure claimed*
3	Interest during construction	254,000 (370,000)	100% of amount due
4	Unallocated	826,000 (1,203,000)	
<b>Total</b>		<b>6,868,000 (10,000,000)</b>	

\*Exclusive of taxes and duties within the territory of the Borrower.

## E. Detailed Cost Estimates by Financier

**Table 9: Detailed Cost Estimates by Financier**  
(\$ million)

Item	ADB		The Government of Bhutan				Total Costs
	\$	%	Tax	Non-Tax	Total	%	
<b>A. Investment Costs</b>							
1. Civil works	7.33	87.8%	0.24	0.77	1.02	12.2%	8.34
2. Land acquisition and resettlement	-	0.0%	-	0.08	0.08	100.0%	0.08
3. Project management and capacity development	1.10	100%	-	-		0.0%	1.10
a. Project management and supervision	1.03	100%	-	-		0.0%	1.03
b. Capacity development (in country only)	0.08	100%	-	-		0.00%	0.08
<b>Subtotal (A)</b>	<b>8.43</b>	<b>88.45%</b>	<b>0.24</b>	<b>0.85</b>	<b>1.10</b>	<b>11.55%</b>	<b>9.53</b>
<b>B. Recurrent Costs</b>							
1. Incremental administrative costs	-	0.0%	0.02	0.68	0.70	100.0%	0.70
<b>Subtotal (B)</b>	<b>-</b>	<b>0.0%</b>	<b>0.02</b>	<b>0.68</b>	<b>0.70</b>	<b>100.0%</b>	<b>0.70</b>
<b>Total Base Cost</b>	<b>8.43</b>	<b>82.4%</b>	<b>0.26</b>	<b>1.53</b>	<b>1.80</b>	<b>17.6%</b>	<b>10.23</b>
<b>C. Contingencies</b>							
1. Physical contingencies	0.70	86.4%	-	0.11	0.11	13.6%	0.81
2. Price contingencies	0.50	84.8%	-	0.09	0.09	15.2%	0.59
<b>Subtotal (C)</b>	<b>1.20</b>	<b>85.7%</b>	<b>-</b>	<b>0.20</b>	<b>0.20</b>	<b>14.3%</b>	<b>1.40</b>
<b>D. Financing Charges During Implementation</b>							
1. Interest during construction	0.37	100.0%	-	-	-	0.0%	0.37
<b>Subtotal (D)</b>	<b>0.37</b>	<b>100.0%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.0%</b>	<b>0.37</b>
<b>Total Project Cost (A+B+C+D)</b>	<b>10.00</b>	<b>83.3%</b>	<b>0.26</b>	<b>1.71</b>	<b>1.97</b>	<b>16.7%</b>	<b>12.00</b>

Notes: 1. Numbers may not sum precisely because of rounding.

2. The costs of the actual audits of the program are minor and will be borne by the government.

3. Minor environmental monitoring and implementation of resettlement plan and gender action plan cost are absorbed in B1. ADB will not finance land acquisition cost.

Source: Asian Development Bank estimates.

## F. Detailed Cost Estimates by Outputs and/or Components

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

Item	Total Cost	Output 1 (Urban infrastructure expanded and/or upgraded)		Output 2 (Sector and institutional capacity, and service delivery strengthened)	
		\$	%	\$	%
<b>A. Investment Costs</b>					
1. Civil works	8.34	8.34	100.0%	-	0.0%
2. Land acquisition and resettlement	0.08	0.08	100.0%	-	0.0%
3. Project management and capacity development	1.10	0.53	47.8%	0.57	52.2%
a. Project management and supervision	1.03	0.53	51.3%	0.50	48.7%
b. Capacity development (in-country only)	0.08	-	0.0%	0.08	100.0%
<b>Subtotal (A)</b>	<b>9.53</b>	<b>8.95</b>	<b>94.0%</b>	<b>0.57</b>	<b>6.0%</b>
<b>B. Recurrent Costs</b>					
1. Incremental administrative costs	0.70	0.60	85.7%	0.10	14.3%
<b>Subtotal (B)</b>	<b>0.70</b>	<b>0.60</b>	<b>85.7%</b>	<b>0.10</b>	<b>14.3%</b>
<b>Total Base Cost</b>	<b>10.23</b>	<b>9.55</b>	<b>93.4%</b>	<b>0.68</b>	<b>6.6%</b>
<b>C. Contingencies</b>					
1. Physical contingencies	0.81	0.81	100.0%		0.0%
2. Price contingencies	0.59	0.54	91.5%	0.05	8.5%
<b>Subtotal (C)</b>	<b>1.40</b>	<b>1.35</b>	<b>96.4%</b>	<b>0.05</b>	<b>3.6%</b>
<b>D. Financing Charges During Implementation</b>					
1. Interest during construction	0.37	0.35	93.9%	0.02	6.1%
<b>Subtotal (D)</b>	<b>0.37</b>	<b>0.35</b>	<b>93.9%</b>	<b>0.02</b>	<b>6.1%</b>
<b>Total Project Cost (A+B+C+D)</b>	<b>12.00</b>	<b>11.27</b>	<b>93.9%</b>	<b>0.74</b>	<b>6.1%</b>

Notes: 1. Numbers may not sum precisely because of rounding.

2. The costs of the actual audits of the program are minor and will be borne by the government.

3. Minor environmental monitoring and implementation of resettlement plan and gender action plan cost are absorbed in B1. ADB will not finance land acquisition cost.

Source: Asian Development Bank estimates.

**G. Detailed Cost Estimates by Year****Table 11: Detailed Cost Estimates by Year**  
(\$ million)

Item	Total	2018	2019	2020	2021	2022	2023
<b>A. Investment Costs</b>							
1. Civil works	8.34	0.87	3.14	2.68	1.33	0.33	-
2. Land acquisition and resettlement	0.08	0.08	-	-	-	-	-
3. Project management and capacity development	1.10	0.08	0.29	0.25	0.23	0.16	0.09
a. Project management and supervision	1.03	0.08	0.28	0.23	0.21	0.13	0.09
c. Capacity development (in-country only)	0.08	-	0.01	0.02	0.02	0.02	-
<b>Subtotal (A)</b>	<b>9.53</b>	<b>1.03</b>	<b>3.43</b>	<b>2.93</b>	<b>1.56</b>	<b>0.48</b>	<b>0.09</b>
<b>B. Recurrent Costs</b>							
1. Incremental administrative costs	0.70	0.07	0.13	0.13	0.13	0.13	0.13
<b>Subtotal (B)</b>	<b>0.70</b>	<b>0.07</b>	<b>0.13</b>	<b>0.13</b>	<b>0.13</b>	<b>0.13</b>	<b>0.13</b>
<b>Total Base Cost</b>	<b>10.23</b>	<b>1.10</b>	<b>3.55</b>	<b>3.06</b>	<b>1.69</b>	<b>0.61</b>	<b>0.22</b>
<b>C. Contingencies</b>							
1. Physical contingencies	0.81	0.09	0.30	0.27	0.12	0.03	-
2. Price contingencies	0.59	0.03	0.16	0.19	0.13	0.05	0.03
<b>Subtotal (C)</b>	<b>1.40</b>	<b>0.12</b>	<b>0.46</b>	<b>0.46</b>	<b>0.25</b>	<b>0.08</b>	<b>0.03</b>
<b>D. Financing Charges</b>	-						
1. Interest during construction	0.37	0.01	0.03	0.06	0.08	0.09	0.10
<b>Subtotal (D)</b>	<b>0.37</b>	<b>0.01</b>	<b>0.03</b>	<b>0.06</b>	<b>0.08</b>	<b>0.09</b>	<b>0.10</b>
<b>Total Project Cost (A+B+C+D)</b>	<b>12.00</b>	<b>1.23</b>	<b>4.04</b>	<b>3.58</b>	<b>2.02</b>	<b>0.78</b>	<b>0.35</b>

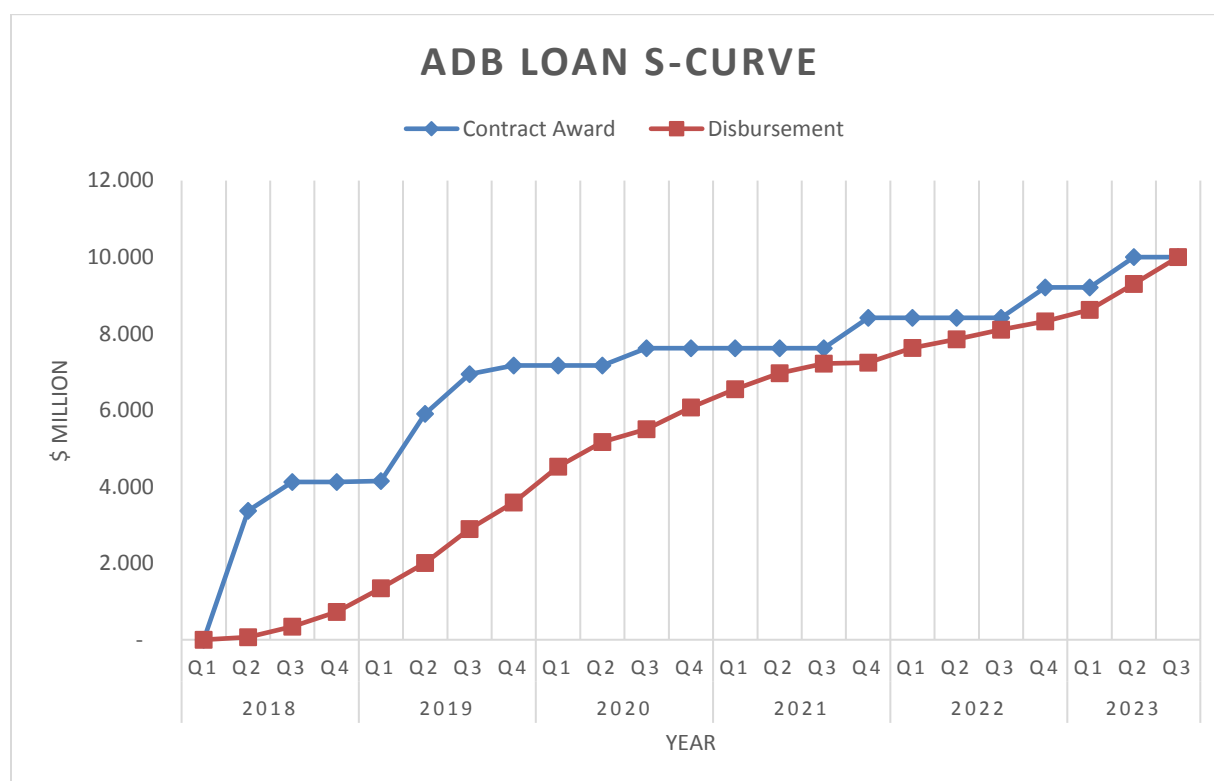
Notes: 1. Numbers may not sum precisely because of rounding.  
2. The costs of the actual audits of the program are minor and will be borne by the government.  
3. Minor environmental monitoring and implementation of resettlement plan and gender action plan cost are absorbed in B1. ADB will not finance land acquisition cost.

Source: Asian Development Bank estimates.



## H. Contract Awards and Disbursement S-Curve

Figure 3: S-Curve



**ADB LOAN: Cumulative Contract Award (\$ million)**

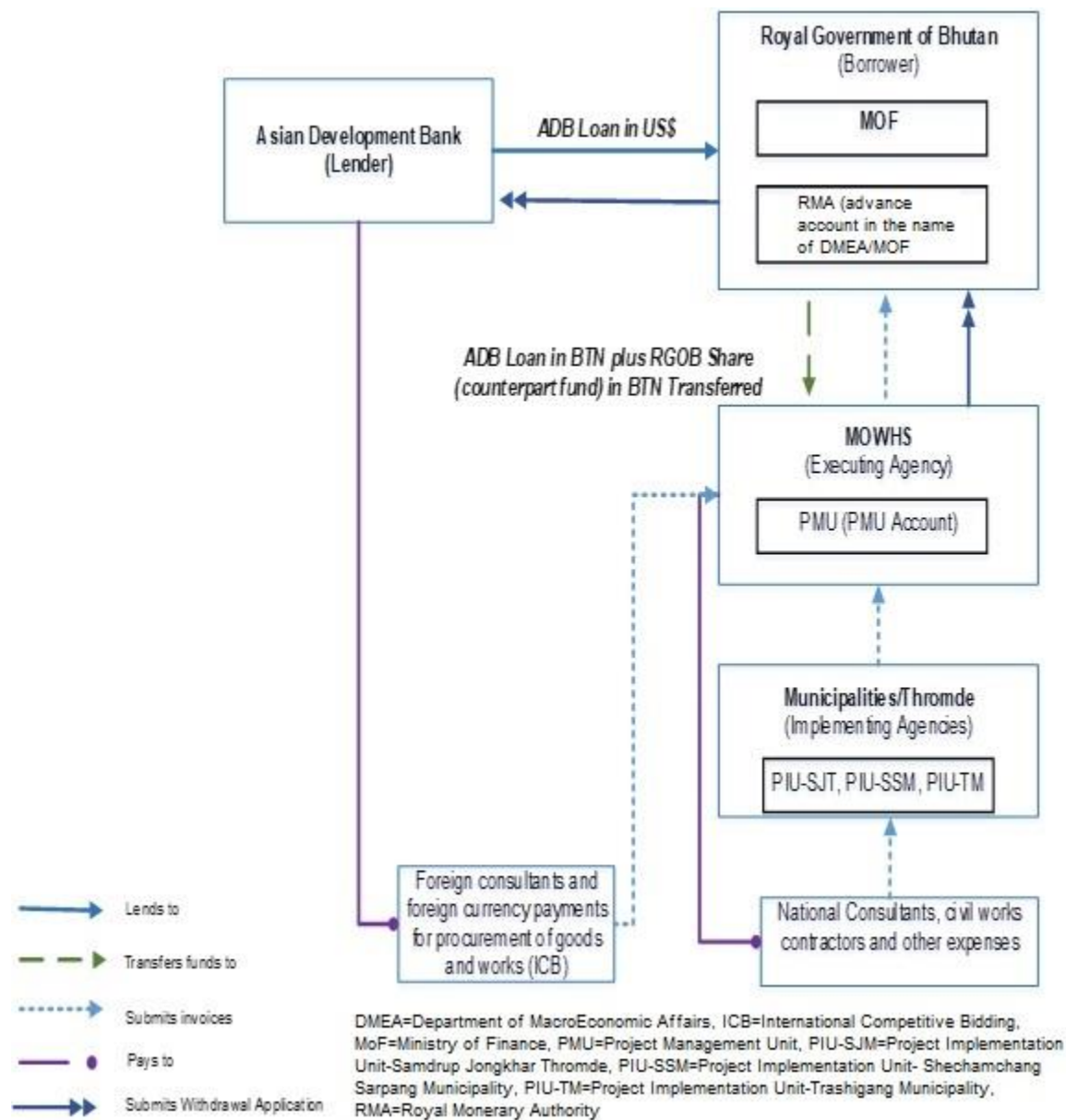
Year	Q1	Q2	Q3	Q4
2018	0.00	3.37	4.13	4.13
2019	4.15	5.91	6.94	7.16
2020	7.16	7.16	7.62	7.62
2021	7.62	7.62	7.62	8.41
2022	8.41	8.41	8.41	9.21
2023	9.21	10.00	10.00	10.00

**ADB LOAN: Cumulative Disbursement (\$ million)**

Year	Q1	Q2	Q3	Q4
2018	0.00	0.07	0.35	0.73
2019	1.35	2.01	2.90	3.59
2020	4.53	5.17	5.50	6.07
2021	6.55	6.97	7.22	7.24
2022	7.63	7.86	8.10	8.32
2023	8.62	9.30	10.00	10.00

## I. Fund Flow Diagram

Figure 4: Fund Flow Diagram



## V. FINANCIAL MANAGEMENT

### A. Financial Management Assessment

16. A financial management assessment (FMA) has been prepared in accordance with ADB's Guidelines for *the Financial Management and Analysis of Projects* (2005), *the Financial Due Diligence; A Methodology Note* (2009), and *the Financial Management Technical Guidance Note* (2015) for the proposed Secondary Towns Urban Development Project (STUDP).

17. The FMA considered the financial management capacity of the Ministry of Works and Human Settlements (MOWHS) in its role as the executing agency, focusing on fund flows, staffing, accounting policies and procedures, internal controls, financial reporting and monitoring, and internal and external audits. The MOWHS has considerable experience in implementing multilateral donors assisted projects including the completed Urban Infrastructure Development Project (UIDP) and the ongoing Urban Infrastructure Project (UIP) funded by ADB.

18. The PMU based in the Department of Engineering Services (DES) of the MOWHS has already been created with a project director, a project coordinator, and a fulltime project manager. The PMU will be responsible for all day-to-day management of STUDP, including but not limited to: (i) preparing an overall project implementation plan and detail work program; (ii) providing overall monitoring and guidance on the implementation; (iii) monitoring and supervising all management activities; (iv) preparing project progress and project completion reports; (v) financial planning and budgeting including contract awards and disbursements; and (vi) ensuring full compliance with ADB's resettlement, environmental and other safeguard policies.

19. The PIUs located within the three project municipalities will be responsible, under the guidance and supervision of the PMU, for: (i) project management and administration, (ii) the day-to-day contract management functions of the project which shall include compliance to the requirements of the contract documents, (iii) supervision and monitoring of construction and consulting works, (iv) ensuring safeguards compliance, and (v) quality control as required by the contract documents. The PIUs will be headed by a project manager who will be supported by a construction engineer of the project management and supervision consultants (PMSC), designated for the respective town.

20. The key risk factors identified during the assessment that need to be addressed include:

- (i) Lack of training to new accounting staff of PMU may cause delays in preparing day-to-day financial management; and
- (ii) Limitations of the existing accounting system may cause delays in submission of periodic financial reports.<sup>11</sup>

21. Despite the highlighted risks, the financial management arrangements of MOWHS and its PMU are satisfactory, taking the ongoing actions of MOWHS consideration. In addition, the project consultants will support MOWHS and its PMU in enhancing their financial management capacity. The overall risk assessment for the STUDP is "moderate." The action plan for mitigating the foreseen risks includes the following measures:

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<sup>11</sup> The current accounting system shows annual data but does not have the capacity to show the cumulative expenditure data for multi-year projects. And, it does not record/report on the physical progress as needed by ADB.

**Table 12: Action Plan**

Area	Current scenario	Risk	Mitigation measure suggested	Target date
Training on ADB requirement	Lack of training to new accounting staff of PMU.	This may cause delays in undertaking day-to-day financial management activities.	Extending full training and capacity building support for enhancing the financial management capacity of MOWHS and its PMU.	July 2018
Project Accounting System	Limitations of the existing accounting system.	This may cause delays in submission of periodic financial reports.	Procuring a suitable accounting package for establishing better accounting and reporting systems.	July 2018

ADB = Asian Development Bank, MOWHS = Ministry of Works and Human Settlements, PMU = project management unit, STUDP = Secondary Towns Urban Development Project.

22. The FMA has considered two types of risks, (i) inherent risks, i.e., risks outside the direct control of the entity financial management; and (ii) control risks, i.e., risks concerning the internal functioning and control of the entity's accounts division. The key risks have been identified as shown in Table 13.

**Table 13: Financial Management Inherent and Control Risk Assessment**

Risk	Risk Assessment	Risk-Mitigation Measures
<b>Inherent Risks</b>		
1. Country-Specific Risks (Bhutan)	<p><b>LOW</b></p> <ul style="list-style-type: none"> <li>The financial management capacity and auditing standard in Bhutan are sound.</li> <li>However, the assessment of World Bank in 2016 revealed the necessities to further improve in the areas of expenditure composition out-turn, controls over payroll, public access to information, internal audit, legislative scrutiny of annual budget laws and quality and timeliness of annual financial statements.<sup>12</sup></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
2. Entity-Specific Risks (MOWHS)	<p><b>LOW</b></p> <ul style="list-style-type: none"> <li>There are strong institutional mechanism and legislative framework for budgeting, accounting, and audit in a time-bound manner.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>

<sup>12</sup> World Bank. 2016. *Bhutan Public Financial Management Performance Report—Based on Public Expenditure and Financial Accountability 2016 Framework*. Washington, D.C.

Risk	Risk Assessment	Risk-Mitigation Measures
3. Project-Specific Risks (STUDP)	<b>SUBSTANTIAL</b> <ul style="list-style-type: none"><li>The municipal finance policy (2009) states that all charges shall be set to cover the costs of the service. However, there is the absence of an institutional mechanism whereby tariffs and financial performance are regularly reviewed and monitored.</li><li>Non-implementation of regular tariff revisions may hamper the sustainability of assets established under STUDP.</li></ul>	<ul style="list-style-type: none"><li>The commitment of government to provide sufficient financial support to the project municipalities for covering O&amp;M costs.</li><li>Preparation and implementation of the systematic plans by project municipalities to enhance revenues and reduce costs.</li></ul>
<b>Overall Inherent Risk</b>	<b>Moderate</b> <p>While project-specific risks exist, these risks might be mitigated through efforts of the government and project municipalities with the support of ADB. There is a considerable specific risk in implementing cost recoverable tariffs. The government needs to provide its support to the project municipalities in ensuring the project sustainability.</p>	
<b>Control Risks – MOWHS and PMU</b>		
1. Executing Entity	<b>LOW</b> <ul style="list-style-type: none"><li>MOWHS has considerable experience in implementing donors assisted projects including the completed UIDP and the ongoing the UIP funded by ADB.</li><li>The PMU has already been created with a Project Director, a Project Coordinator, and a fulltime Project Manager. PMU will hire consultants and contractors as well as make payments.</li></ul>	<ul style="list-style-type: none"><li>Not applicable</li></ul>
2. Flow of Funds	<b>LOW</b> <ul style="list-style-type: none"><li>Funds flow for STUDP will be similar with the ongoing UIP. There have been no major problems in funds flow of UIP.</li></ul>	<ul style="list-style-type: none"><li>Not applicable</li></ul>
3. Staffing	<b>SUBSTANTIAL</b> <ul style="list-style-type: none"><li>Inadequate staff capacity in the accounts section and lack of training to new accounting staff may cause delays in day-to-day financial management and submission of periodical financial reports.</li><li>A major factor behind this is that trained staff are transferred to other government agencies based on the government's policy of staff rotation every 3 years.</li></ul>	<ul style="list-style-type: none"><li>Extending full training and capacity building support for enhancing the financial management capacity of MOWHS and its PMU.</li></ul>
4. Accounting Policies and Procedures	<b>MODERATE</b> <ul style="list-style-type: none"><li>The existing accounting system is generally capable of providing the financial information needed by the agency and auditors.</li><li>However, it has limitations in providing project accounting data as basis for project disbursements following ADB procedures as follows:</li></ul>	<ul style="list-style-type: none"><li>Procuring a suitable accounting package for establishing better reporting and monitoring system.</li></ul>

Risk	Risk Assessment	Risk-Mitigation Measures
	<ul style="list-style-type: none"> <li>- it does not show the cumulative expenditure data for multiyear projects,</li> <li>- it can't record/report on the physical progress needed by ADB</li> <li>- it can't record/report on cumulative contract payments and balances.</li> </ul>	
5. Internal audit	<p style="text-align: center;"><b>SUBSTANTIAL</b></p> <ul style="list-style-type: none"> <li>• MOWHS has two internal auditors reporting to the Secretary. They review the accounting and the management system of MOWHS.</li> <li>• The latest internal audit report covers the fiscal year of 2015.</li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>
6. External Audit – project level	<p style="text-align: center;"><b>LOW</b></p> <ul style="list-style-type: none"> <li>• Annual audit of project accounts is carried out by the RAA.</li> <li>• The latest audited project financial statement of ADB-funded projects was for the UIP covering the FY 2016-17. The audit was conducted August 2017 and the report was issued October 2017. This was submitted timely to ADB without any delay.</li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>
7. External Audit – entity level	<p style="text-align: center;"><b>LOW</b></p> <ul style="list-style-type: none"> <li>• RAA conducts an annual audit of MOWHS. The latest audit report was issued in March 2017 and covered the FY2015-16.</li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>
7. Reporting and Monitoring	<p style="text-align: center;"><b>MODERATE</b></p> <ul style="list-style-type: none"> <li>• The existing system has substantial limitations in providing project reports for monitoring since it can't record and report on the physical progress needed by ADB.</li> </ul>	<ul style="list-style-type: none"> <li>• Procuring a suitable accounting package for establishing better reporting and monitoring system.</li> </ul>
8. Information Systems	<p style="text-align: center;"><b>MODERATE</b></p> <ul style="list-style-type: none"> <li>• The existing system has substantial limitations since it does not show the cumulative data for multi-year projects.</li> </ul>	<ul style="list-style-type: none"> <li>• Procuring a suitable accounting package for establishing better reporting and monitoring system.</li> </ul>
<b>Overall Control Risk</b>	<p style="text-align: center;"><b>MODERATE</b></p> <p>Some financial management risks are recognized, but all of them are not high. Providing training to accounts staff, and procuring a suitable accounting package need to be ensured by the government.</p>	

ADB = Asian Development Bank, FY = fiscal year, MOWHS = Ministry of Works and Human Settlements, O&M = operation and maintenance, PMU = project management unit, RAA = Royal Audit Authority, STUDP = Secondary Towns Urban Development Project, UIDP = Urban Infrastructure Development Project, UIP = Urban Infrastructure Project.

## B. Disbursement

### 1. Disbursement Arrangements for ADB

23. The loan proceeds will be disbursed in accordance with the ADB's *Loan Disbursement Handbook* (2017, as amended from time to time), and detailed arrangements agreed upon

between the government and the ADB. The PMU will be responsible for: (i) preparing annual contract awards and disbursement projections, (ii) requesting budgetary allocations for counterpart funds, (iii) collecting supporting documents, and (iv) preparing and sending withdrawal applications to the ADB through the Department of Macroeconomic Affairs (DMEA), Ministry of Finance. Online training for project staff on disbursement policies and procedures is available.<sup>13</sup> Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

24. **Advance fund procedure.** An advance account should be established at the Royal Monetary Authority (RMA) and operated by DMEA for the ADB loan. The currency of the advance account is in US dollar. The advance account is to be used exclusively for the ADB's share of eligible expenditures. The DMEA, who established the advance account in its name, is accountable and responsible for proper use of advances to the advance account.

25. The total outstanding advance to the advance account should not exceed the estimate of ADB's share of expenditures to be paid through the advance account for the forthcoming six months. The MOWHS may request for initial and additional advances to the advance account based on an estimate of expenditure sheet<sup>14</sup> setting out the estimated expenditures to be financed through the account for the forthcoming six months. Supporting documents should be submitted to ADB or retained by the MOWHS in accordance with the ADB's *Loan Disbursement Handbook* (2017, as amended from time to time) when liquidating or replenishing the advance account.

26. **Statement of expenditure procedure.**<sup>15</sup> The statement of expenditure (SOE) procedure will be adopted for liquidation of eligible expenditures not exceeding \$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 mission, 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.

## 2. Disbursement Arrangements for Counterpart Fund

27. Counterpart funds will be provided by the MOWHS from its annual budgets, which in turn will be based on the amounts provided for the project in the budget of the government. Taxes and duties will be borne by the counterpart.

### C. Accounting

28. The PMU will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project. Project accounts will follow generally accepted accounting principles followed in the government and the accounting standards followed by the the government and MOWHS. Template financial statements provided in the standardized terms of reference for audit of ADB assisted projects, agreed with the Royal Audit Authority (RAA), and ADB can be referred to as a guide for preparing financial statements.

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<sup>13</sup> Disbursement eLearning. [http://wpqr4.adb.org/disbursement\\_elearning](http://wpqr4.adb.org/disbursement_elearning).

<sup>14</sup> ADB. 2017. *Loan Disbursement Handbook*. Manila, 10B.

<sup>15</sup> SOE forms are available in Appendix 9B and 9C of ADB's *Loan Disbursement Handbook* (2015, as amended from time to time).

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

29. The MOWHS will cause the detailed project financial statements to be audited in accordance with the Government's audit regulations, by the RAA or any private external auditor empaneled and assigned to the audit by the RAA, acceptable to ADB. The audited project financial statements together with the auditor's opinion will be presented in the English language to ADB within 6 months from the end of the fiscal year by the MOWHS.

30. The audit report for the project financial statements will include a management letter and auditor's opinion, which cover (i) whether the investment 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).

31. 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.

32. The government, the MOWHS, and the PMU have been made aware of the ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.<sup>16</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.

33. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by the ADB's Public Communications Policy 2011.<sup>17</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 the ADB's website. The management letter, additional auditor's opinions, and audited entity financial statements will not be disclosed.<sup>18</sup>

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<sup>16</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 six 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; and
- (iii) When audited project financial statements are not received within 12 months after the due date, ADB may suspend the loan.

<sup>17</sup> Public Communications Policy: <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>

<sup>18</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).



## VI. PROCUREMENT AND CONSULTING SERVICES

### A. Advance Contracting and Retroactive Financing

34. All advance contracting and retroactive financing will be undertaken in conformity with ADB's Procurement Guidelines (2015, as amended from time to time) and ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).<sup>19</sup> The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The borrower, and MOWHS have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the project.

35. **Advance contracting.** The Department of Macroeconomic Affairs, Ministry of Finance and ADB have agreed on the use of retroactive financing to finance advance procurement actions under the project. Advance contracting includes advance contracting of: (i) civil works; and (ii) recruitment of consultants as requested by the executing agency, subject to these being eligible as per the agreed procedures and guidelines.

36. **Advance contracting packages.** The works and services packages to be financed by the project through advance contracting are (i) Civil works: SM/UWS/002 (Sarpang Water Supply Development Project); (ii) Civil works: SM/UR/001 (Development of Shechamthang LAP Infrastructure: Roads, Drainage and Water Supply Project); (iii) Civil works: TW/WS/002 (Trashigang water distribution network improvement project); and (iv) Consulting services CS-1 (Project Management and Supervision Consultant). Eligible PMU and PIU setting up expenses (office equipment, vehicles, and personnel) may also be part of advance contracting and retroactive financing.

37. **Retroactive financing.** Retroactive financing is allowed for reimbursement of eligible expenses against civil works and consulting services up to a maximum amount equivalent to 20% of the total ADB loan, incurred before loan effectiveness, but not more than 12 months before the signing of the loan agreement.

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

38. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines (2015, as amended from time to time) (footnote 25).

39. National competitive bidding (NCB) is proposed for all contracts. Prior to commencement of advance contracting ADB reviewed the public procurement laws of the government to ensure consistency with ADB's Procurement Guidelines (2015, as amended from time to time) (footnote 25). The modifications to achieve consistency with ADB's procurement requirements is described in the procurement plan (paras. 55 to 74). Threshold for NCB shall be below that of ICB. Works by government-owned entities (for activities which are not suitable for competitive bidding) shall be done through force account method. Small service contracts (works considered non-competitive in nature, i.e., excavation of small channels, earth shifting, turfing, tree planting and other misc. works in the project area) may be directly contracted as per ADB guidelines for community participation in procurement for works, with a limit of \$20,000 per package.<sup>20</sup>

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<sup>19</sup> ADB. 2015. *Procurement Guidelines*. Manila; and ADB. 2013. *Guidelines on the use of Consultants by Asian Development Bank and its Borrowers*. Manila.

<sup>20</sup> ADB. 2015. *Procurement Guidelines*. Manila (Section 3.17).

40. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C. Standard bidding documents (SBD) for works- small (Single stage-single envelope) will be used throughout project for the procurement of works contracts. The procurement plan will be updated by the PMU with inputs from the implementing agencies 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.

41. All consultants and nongovernment organizations (NGOs) will be recruited according to ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).(footnote 25)<sup>21</sup> The terms of reference for all consulting services are detailed in Appendixes 2 and 3.

42. Estimated 264 person-months of consulting services are required to (i) facilitate project management and implementation, (ii) strengthen construction supervision, (iii) support community mobilization activities, (iv) strengthen the institutional and operational capacity of the executing and implementing agencies, (v) support with preparation and verification of detailed engineering designs, and (vi) provide tariff implementation guidelines. Consulting firm will be engaged using the quality- and cost-based selection (QCBS) method with a standard quality cost ratio of 90:10. Individual consultants will be engaged using the individual consultant's selection method. One NGO will be engaged using the consultants qualifications selection method.

### **C. Procurement Plan**

43. The procurement plan, as approved by ADB, describes all procurement of goods and works to be undertaken by the project. ADB will review documents and submissions related to procurement at all major milestones prior to proceeding with the procurement process. PMU will be supported by a procurement specialist from the PIC in bid document preparation and evaluation. This will be supplemented by regular training on procurement for PMU staff.

44. The procurement plan is prepared in accordance with the generic template prepared by the Procurement, Portfolio and Financial Management Department.<sup>22</sup>

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<sup>21</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/>.

<sup>22</sup> Procurement plan template:  
[http://wpqr2.asiadevbank.org/LotusQuickr/cosopedia/PageLibrary48257599000668D1.nsf/h\\_Toc/5EA6EACF755AA652482575D9002FCB8F/?OpenDocument](http://wpqr2.asiadevbank.org/LotusQuickr/cosopedia/PageLibrary48257599000668D1.nsf/h_Toc/5EA6EACF755AA652482575D9002FCB8F/?OpenDocument).

### Basic Data

<b>Project Name: Secondary Towns Urban Development Project</b>	
<b>Project Number:</b> 42229-016	<b>Approval Number:</b> xxxx
<b>Country:</b> Bhutan	<b>Executing Agency:</b> Department of Engineering Services
<b>Project Procurement Classification:</b> B	<b>Implementing Agencies:</b> Samdrup Jongkhar, Sarpang, Trashigang
<b>Procurement Risk:</b> Moderate	
<b>Project Financing Amount:</b> US\$ 12 million <b>ADB Financing:</b> \$ 10 million <b>Non-ADB Financing:</b> NA	<b>Project Closing Date:</b> 31 July 2023
<b>Date of First Procurement Plan:</b> 17 November 2017	<b>Date of this Procurement Plan:</b> 24 April 2018

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

### a. Procurement and Consulting Methods and Thresholds

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

Procurement of Goods and Works		
Method	Threshold	Comments
International Competitive Bidding for Goods	\$ 1,000,000 and Above	
National Competitive Bidding for Goods	Between \$ 100,000 and \$ 999,999	Usage will follow the NCB. Prior review applies to procurement of the first NCB contract by the program preparation and management unit. If the first contract is procured satisfactorily, post review is issued thereafter.
Shopping for Goods	Below \$100,000	Prior review applies to procurement of the first shopping contract by the Program preparation and management unit. If the first contract is procured satisfactorily, post review is used thereafter.
International Competitive Bidding for Works	\$ 3,000,000 and above	This is based on approved RRP and Procurement Plan
National Competitive Bidding for Works	Between \$ 100,000 and \$ 2,999,999	Usage will follow the NCB (Box A1). Prior review applies to procurement of the first NCB contract by the program preparation and management unit. If the first contract is procured satisfactorily, post review is used thereafter.

Procurement of Goods and Works		
Method	Threshold	Comments
Shopping for Works	Below \$100,000	Prior review applies to procurement of the first shopping contract by the program preparation and management unit. If the first contract is procured satisfactorily, post review is used thereafter.
Consulting Services		
Method	Comments	
Consultant's Qualification Selection for Consulting Firm		
Quality- and Cost-Based Selection for Consulting Firm	Quality- and cost-based selection based on 90:10 quality–cost weighting. Applied in accordance with Guidelines on the Use of Consultants (2013, as amended from time to time).	
Individual Consultants Selection for Individual Consultant	Applied in accordance with Section 2.34, Guidelines on the Use of Consultants	

**b. Goods and Works Contracts Estimated to Cost \$1 Million or More**

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

Package Number	General Description	Estimated Value (US\$) millions	Procurement Method	Review (Prior/ Post)	Bidding Procedure	Advertisement Date (Qr/Yr)	Comments Small Works
<b>1. Sarpang Municipality</b>							
SM/UR/001	Development of Shechamthang LAP Infrastructure: Roads, Drainage and Water Supply Project	2.531	NCB	Prior	1S1E	Q1 2018	Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Small Works
SM/UWS/002	Sarpang Water Supply Development Project	1.127	NCB	Prior	1S1E	Q4 2017	Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Small Works
<b>2. Samdrup Jongkhar Municipality</b>							
SJM/WS/001	Rehabilitation of Samdrup Jongkhar Water Supply System Improvement Project	1.158	NCB	Prior	1S1E	Q4 2018	Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Small Works

**c. Consulting Services Contracts Estimated to Cost \$100,000 or More**

47. 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 (US\$) millions	Recruitment Method	Review (Prior/Post)	Advertisement Date (Qr/Yr)	Type of Proposal	Comments
CS1	Project Management and Supervision Consultant (PMS)	0.518	QCBS	Prior	Q4 2017	STP	National Competitive Selection. Quality-cost ratio of 90:10
CS2	Recruitment of Construction Supervision Coordinator	0.235	ICS	Prior	Q2 2018	NA	Assignment: National Consultant
CS3	NGO for Community Mobilization	0.160	CQS	Prior	Q1 2019	STP	Assignment: National Consultant

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

48. 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.

**i. Goods and Works**

Package Number	General Description	Estimated Value (US\$) millions	Recruitment Method	Review (Prior/Post)	Type of Proposal	Advertisement Date (Qr/Yr)	Comments
SJM/SST/003	Samdrup Jongkhar sanitation and sewerage project	0.973	NCB	Prior	1S1E	Q1 2019	Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Small Works
TW/WS/002	Trashigang water distribution network improvement project	0.560	NCB	Prior	1S1E	Q4 2017	Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Small Works

## ii. Consulting Services

Package Number	General Description	Estimated Value (US\$) millions	Recruitment Method	Review (Prior/Post)	Advertisement Date (Qr/Yr)	Type of Proposal	Comments
CS6	Recruitment Stormwater Management/ Drainage Design Engineer	0.048	ICS	NA	Q1 2019	NA	Assignment International Consultant
CS7	Recruitment Institutional Specialist	0.024	ICS	NA	Q3 2018	NA	Assignment International Consultant
CS8	Urban infrastructure trainer	0.052	ICS	NA	Q4 2018	NA	Assignment International Consultant

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

49. 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).

Goods and Works							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Review (Prior/Post)	Bidding Procedure	Comments
SJM/WS/002	Dewathang Water Supply Augmentation Project	1.230	1	NCB	Prior	1S1E	To be advertised Q2 2019 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Small Works
TW/WS/003	Rangjung intake and WTP rehabilitation project	0.765	1	NCB	Prior	1S1E	To be advertised Q1 2020. Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Small Works

Consulting Services							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Review (Prior/Post)	Type of Proposal	Comments
CS5	Recruitment Wastewater Systems Design Engineer	0.064	1	ICS	NA	NA	To be advertised Q2 2019

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

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

#### a. Awarded and On-going Contracts

Goods and Works							
Package Number	General Description	Estimated Value	Awarded Contract Value	Procurement Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award <sup>1</sup>	Comments <sup>2</sup>

<sup>1</sup> Date of ADB Approval of Contract Award is the date of No-Objection letter to the executing agency or implementing agency.

<sup>2</sup> Indicate the Contractor's name and the contract signing date.

Consulting Services							
Package Number	General Description	Estimated Value	Awarded Contract Value	Recruitment Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award <sup>3</sup>	Comments <sup>4</sup>

<sup>3</sup> Date of ADB Approval of Contract Award is the date of No-Objection letter to the executing agency or implementing agency.

<sup>4</sup> Indicate the Consulting Firm's name and the contract signing date.

#### i. Completed Contracts

Goods and Works								
Package Number	General Description	Estimated Value	Contract Value	Procurement Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award <sup>5</sup>	Date of Completion <sup>6</sup>	Comments

<sup>5</sup> Date of ADB Approval of Contract Award is the date of No-Objection letter to the executing agency or implementing agency.

<sup>6</sup> The Date of Completion is the physical completion date of the contract.

Consulting Services								
Package Number	General Description	Estimated Value	Contract Value	Recruitment Method	Advertise ment Date (quarter/ year)	Date of ADB Approval of Contract Award <sup>7</sup>	Date of Completion <sup>8</sup>	Comments

<sup>7</sup> Date of ADB Approval of Contract Award is the date of No-Objection letter to the executing agency or implementing agency.

<sup>8</sup> The Date of Completion is the physical completion date of the contract.

#### 4. Non-ADB Financing

51. The following table lists goods, works and consulting services contracts over the life of the project, financed by Non-ADB sources.

Goods and Works				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Comments

Consulting Services				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Comments

#### 5. National Competitive Bidding

##### a. General

52. The procedures to be followed for national competitive bidding shall be the open tendering/bidding method set forth in the Procurement Rules and Regulations 2009 and subsequent amendments issued by the Ministry of Finance of the Kingdom of Bhutan with the clarifications and modifications described in the following paragraphs.<sup>23</sup>

##### b. Domestic Preference

53. No preference of any kind shall be given to domestic bidders or for works of domestically manufactured goods. Clause 1.1.2.2 of the Procurement Rules and Regulations 2009 shall not apply.

<sup>23</sup> Royal Government of Bhutan. Ministry of Finance 2009. *Procurement Rules and Regulations*. Thimphu.



**c. Registration**

54. Foreign suppliers and contractors from ADB member countries shall be allowed to apply for pre-qualification and to bid, without national registration, licensing and other government authorizations, leaving compliance with these requirements until after notice of award and before signing of contract.

55. Where registration is required prior to award of contract, bidders: (i) shall be allowed a reasonable time to complete the registration process; and (ii) shall not be denied registration for reasons unrelated to their capability and resources to successfully perform the contract, which shall be verified through post-qualification.

**d. Exclusion of Bidders or National Sanctions List**

56. Exclusion of bidders for reasons cited in paragraph 2.1.4.1 of the Procurement Rules and Regulations, 2009 (footnote 28), including inclusion on national sanctions lists may be applied only with prior approval of ADB. Rejection of bids on account of "past poor performance" of bidders shall also be subject to ADB's prior approval.

**e. Qualifications**

57. Post qualification shall be used unless prequalification is explicitly provided for in the loan agreement/procurement plan.

58. If prequalification is undertaken, the prequalification criteria shall be based on ADB's User's Guide to Prequalification of Bidders.

59. From the date of advertisement, a minimum period of 28 days shall be allowed for the preparation and submission of prequalification applications.

**f. Eligibility of Bidders**

60. The eligibility of bidders shall be as defined under Eligibility provisions of ADB's Procurement Guidelines ("Guidelines") (April 2015, as amended from time to time) (footnote 24), accordingly, no bidder or potential bidder should be declared ineligible for reasons other than those stated the Guidelines.

**g. Procurement Thresholds and Procurement Methods**

61. In cases of conflict between the thresholds as prescribed in Clause 4.1 of the Procurement Rules and Regulations, 2009 (footnote 28) and the Procurement Plan, the lower threshold shall prevail. The procurement methods specified on the Procurement Plan shall be followed.

**h. Procurement Process**

62. One envelope open bidding process shall be used unless two stage process is explicitly provided for in the loan agreement/procurement plan.

**i. Advertising**

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

**j. Bidding Documents**

64. Procuring entities shall use standard bidding documents acceptable to ADB for the Procurement of Goods, Works and related Services.

**k. Packaging**

65. Slicing or splitting of contracts within a package shall not be used to change the contract sizes and the corresponding methods of procurement indicated in the loan agreement/procurement plan.

**l. Bid Security and Performance Security**

66. Where required, bid security (earnest money), retention money (or security deposit) and performance security (or performance guarantee) shall be in the form of a demand draft, certified check, letter of credit, or bank guarantee from a reputable bank.

67. The terms and conditions of bid security as well as retention money and performance security shall be clearly specified in the forms provided and/or conditions of contract in terms of periods of validity and grounds for forfeiture, or release of the bank guarantees, or refund of the cash security deposits.

**m. Rejection of All Bids and Re-bidding**

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

**n. Low Bids and Unbalanced Bids**

69. Bids shall not be rejected solely because the bid price seriously lower or unbalanced. The bidder whose bid is determined to be the lowest evaluated substantially responsive bid may be required by the executing agency or implementing agency to provide a higher performance security to a level sufficient to protect the executing agency or implementing agency against financial loss in the event of default of the successful bidder under the Contract.

**o. Disclosure of Decision on Contract Awards**

70. At the same time that notification on award of contract is given to the successful bidder, the results of bid evaluation shall be published in a local newspaper, or a well-known freely accessible website identifying the bid and lot numbers and providing information on (i) name of each Bidder who submitted a Bid, (ii) bid prices as read out at bid opening; (iii) name of bidders whose bids were rejected and the reasons for their rejection, and (iv) name of the winning Bidder, and the price it offered, as well as duration and summary scope of the contract awarded. The executing agency/implementing agency/contracting authority shall respond in writing to unsuccessful bidders who seek explanations on the grounds on which their bids are not selected.

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

71. Terms of reference of project management and supervision consultants is attached as Appendix 3.

## **VII. SAFEGUARDS**

72. The safeguard category for environment is 'B', for involuntary resettlement 'B', and for indigenous peoples 'C'. Indigenous peoples' plans are not required.

### **A. Environmental Safeguards**

73. The ADB Safeguard Policy Statement (SPS), 2009 requires that adverse impacts of projects on the environment and people are avoided, and where not possible, should be minimized, mitigated, and/or compensated. ADB financed projects must comply with its SPS, 2009 and also with the borrower country's environmental laws, including the international laws/conventions to which the country is a signatory. The environment safeguard requirements are to ensure the environmental soundness and sustainability of projects and support the integration of environmental considerations into the project decision-making process.

74. STUDP is classified as category B for environmental safeguards as per ADB SPS, 2009. The initial environmental examinations (IEEs) prepared confirm subprojects are unlikely to cause any significant or irreversible environmental impacts and mainly due to construction-related activities such as dust, noise, disturbance to traffic, residents and businesses (such as restricted access and interrupted services); and the need to dispose of surplus soil from construction activities. Potential impacts during construction phase are site-specific, temporary and can be easily mitigated while impacts during operations phase of the water supply and sewerage subprojects can be avoided by incorporating the necessary measures in the design and use of appropriate procedures. Thus, STUDP implementation will not result to significant negative environmental impacts and risks that cannot be mitigated.

75. The IEEs include environmental management plans (EMPs) to effectively manage any environmental issues arising from implementation of the subprojects. The EMPs include (i) mitigating measures to be implemented, (ii) required monitoring and costs associated with the mitigation measures, and (iii) implementation arrangement. The EMPs will guide the environmentally sound construction of the subprojects and ensure efficient lines of communication between the PIU, project management and supervision consultants (PMS), and contractors. The IEEs will be included in the bid and contract documents. The contractors will be required to submit to PIU a Contractor's EMP (CEMP) based on the subproject's EMP with details on staff, resources, implementation schedule and monitoring procedures. Civil works will not be allowed unless the CEMP has been reviewed and cleared by PIU. The agreed CEMP will be the basis for monitoring by PIU, MOWHS, PMU and other monitoring parties.

76. For unanticipated environmental impacts during project implementation, PIU municipal engineer shall prepare a supplementary environmental assessment and EMP to assess the potential impacts and outline mitigation measures and resources to address those impacts. PMU will immediately inform ADB and if necessary stop works until corrective actions have been implemented.

77. Applicable environmental safeguard compliance requirements based on Government of Bhutan and ADB SPS, 2009 to STUDP are summarized in Table 14. All statutory clearances and permits will be obtained prior to award of contracts.

**Table 14: Summary of Environmental Safeguard Compliance Requirements**

<b>Project Stage</b>	<b>Environmental Safeguards Requirements</b>	<b>Government of Bhutan Requirements</b>
Prior to loan effectiveness	<ul style="list-style-type: none"> <li>Environmental Officers appointed in the PIUs.</li> <li>The GRM is established prior to project loan effectiveness.</li> </ul>	
Project preparation (preliminary and detailed design)	<ul style="list-style-type: none"> <li>Category A subprojects not considered for funding under STUDP.</li> <li>IEEs conducted for the Category B subprojects.</li> <li>Meaningful consultations with stakeholders and affected people are conducted, and information disclosed.</li> <li>EMPs are prepared.</li> </ul>	<ul style="list-style-type: none"> <li>Environmental clearance obtained from competent authority prior to award of works, including all other regulatory clearances and approval requirements of the subprojects.</li> </ul>
Bidding process	<ul style="list-style-type: none"> <li>IEEs updated as per the detailed designs and are approved by ADB prior to bid invitation.</li> <li>The EMP is included in the tender documents.</li> <li>EMP provisions and compliance requirements as per IEE are explained to bidders in the pre-bid meetings.</li> <li>Include in the contracts provision on updating of IEE and EMP for any change in scope or detailed designs.</li> <li>IEEs disclosed in form and language understandable to stakeholders and affected people.</li> </ul>	
Prior to award of contract	<ul style="list-style-type: none"> <li>All the regulatory clearances and approvals are in place for the subproject prior to the award of the contract.</li> <li>Conditions set forth in regulatory clearances and approvals incorporated in subproject designs and documents.</li> </ul>	
Contract Award	<ul style="list-style-type: none"> <li>Officers in charge of overseeing safeguards and consultants to provide IEE and EMP briefing to contractors.</li> </ul>	
Before start of civil works	<ul style="list-style-type: none"> <li>Update IEE and EMP if there is any change in project (location, alignment, design, construction methodology, etc.).</li> <li>Contractor to submit CEMP to PIU. No works will be allowed unless the CEMP is approved by PIU.</li> <li>Contractor to comply with all pre-construction procedures including preparation of the construction health and safety plan, traffic management plan and the establishment of labor camps as per the EMP provisions, etc.</li> </ul>	

Project Stage	Environmental Safeguards Requirements	Government of Bhutan Requirements
Construction	<ul style="list-style-type: none"> <li>Continuous monitoring of CEMP implementation.</li> <li>PMU and PIUs to organize workshops/training on EMP implementation.</li> <li>Update IEE and EMP if there is any change in project (location, alignment, design, construction methodology, etc.). and/or if any unanticipated impacts noticed during implementation.</li> <li>PMU and PIU to monitor EMP (including CEMP) implementation.</li> <li>Address any grievances brought about through the GRM in a timely manner as per the IEEs.</li> <li>Conduct continuous public consultation and awareness.</li> <li>Semi-annual EMRs are submitted to the ADB in the format given in IEE.</li> </ul>	<ul style="list-style-type: none"> <li>Submit required reports/compliances per issued clearances and permits.</li> </ul>
Post-construction	<ul style="list-style-type: none"> <li>All the sites are cleaned up and restored as required prior to issuance of work completion certification to the contractor.</li> </ul>	
Operation	<ul style="list-style-type: none"> <li>Implement operational stage EMP.</li> </ul>	<ul style="list-style-type: none"> <li>All the operational stage regulatory clearances and approvals, as required, are in place prior to start of operation.</li> </ul>

ADB = Asian Development Bank, CEMP = contractors' environmental management plan, EMP = environmental management plan, EMR = environmental monitoring report, GRM = grievance redress mechanism, IEE = initial environmental examination, NEC = National Environment Commission, PIU = project implementation unit, PMU = project management unit, PMSC = project management and supervision consultant, STUDP = Secondary Towns Urban Development Project.

78. **Environmental Monitoring.** PIU will submit to PMU quarterly environmental monitoring report and PMU to submit semi-annual environmental monitoring report to ADB.

79. **Institutional Arrangements in Environmental Safeguards.** The environment officers of the PIUs supported by the PMSC environment specialist, will be responsible for the implementation of environmental safeguards and ensuring overall compliance with the ADB SPS, 2009. For the implementation of the EMPs during construction, contractors' personnel will include an environmental, health and safety supervisor. The necessary budgetary resources for EMP implementation shall be borne by the contractor.

80. **Roles of the PMU in environmental safeguards.** The PMU will:

- (i) Designate an Environment Officer who will oversee all subprojects under STUDP, and work closely with consultants and PIUs on the implementation of the EMP;<sup>24</sup>
- (ii) Supervise the Project Management and Supervision Consultants (PMSC) that will assist MOWHS and PMU during pre-construction and construction phases. PMSC will have a team of environmental consultants;
- (iii) With assistance from PMSC, PIUs, and contractors, ensure overall compliance with all government rules and regulations and other environmental requirements of all subprojects under STUDP; and

<sup>24</sup> Any of the PMU staff may be designated as environment officer for STUDP. S/he will also be responsible for reviewing and compiling semi-annual environmental monitoring reports and submission of the same to ADB.

- (iv) With assistance from PMSC, ensure that IEEs are included in bidding documents and civil work contracts for all subprojects under STUDP.

81. **Roles of PMSC in environmental safeguards.** The PMSC will:

- (i) Coordinate and work with PIUs for the conduct of public consultations and day-to-day monitoring of subproject implementation;
- (ii) Lead the conduct of training activities as per capacity development program discussed in the IEEs, including the conduct of induction course for contractors covering all aspects of the EMP and grievance redress mechanism (GRM) implementation;
- (iii) Ensure that IEEs are updated when there will be changes in scope or components or alignments under the subproject;
- (iv) Assist MOWHS and PMU in the following aspects:
  - (a) ensuring overall compliance with government rules and regulations and other environmental requirements for the subproject;
  - (b) ensuring that measures of climate change impacts are integrated in the design of subproject components; and
  - (c) preparing the semi-annual environmental monitoring reports for ADB.
- (v) Ensure disclosure of IEEs in locations accessible to the public and in form and language understood by the local stakeholders.

82. **Roles of the PIUs in environmental safeguards.** Each PIU will:

- (i) Oversee the effective implementation of the CEMP by the contractor;
- (ii) Support implementation of the grievance redress mechanism and promptly address the complaints on environmental performance of the subproject during execution of the construction activities;
- (iii) With support from PMU and PMSC, conduct public consultations as a continuing activity during the implementation of the subprojects; and
- (iv) With support from the contractors, prepare regular reports on the implementation of the EMP and submit to PMU.

83. **Roles of Contractor.** The contractor will:

- (i) Submit CEMP based on the EMP outlined in this IEE;
- (ii) Ensure compliance with all applicable legislation and the requirements of the CEMP;
- (iii) Ensure implementation of the CEMP, including costs for survey, site establishment, preliminary activities, construction, defects liability activities, and environmental mitigation measures related to CEMP implementation during construction and post-construction phases;
- (iv) Ensure that any sub-contractors or suppliers, who are utilized within the context of a contract, comply with the environmental requirements of the CEMP and EMP. The contractor will be held responsible for non-compliance on their behalf;
- (v) In coordination with PMU and PIU, provide environmental awareness training to staff prior to any construction activities;
- (vi) Bear the costs of any damages resulting from non-compliance with the CEMP and EMP; and
- (vii) Appoint one environment and safety staff for implementation of EMP, community coordination, documentation of grievances received and resolutions at the project level in compliance with the project's GRM.

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

84. The project is classified category B for involuntary resettlement as per ADB's Safeguards Policy Statement (2009). All subproject components have been identified and social assessment conducted reveals that involuntary resettlement impacts are not significant. A draft resettlement plan and three due diligence reports have been prepared for subproject components in accordance with ADB SPS and national laws, which will be updated based on detailed design and/or detailed measurement surveys. An entitlement matrix has been prepared and agreed with the government to provide guidance on entitlements for affected persons (Appendix 8). The plan/reports indicate that no private land acquisition, structure loss or relocation impact is anticipated as majority of the works will be undertaken on public lands or within existing rights of way. Due diligence confirmed that there are no persons living-on or using public land informally.

85. Identified involuntary resettlement impacts include potential partial loss of crop/trees due to new transmission pipe laying activity through private agricultural lands belonging to 19 landowners (91 people) in Sarpang, who voluntarily agreed to allow pipe laying without transfer of title; and compensation. None of the land owners are vulnerable or poor and they will be compensated for crop or structure losses occurring because of the pipe laying activity (refer Resettlement Plan for Sarpang). The compensations will be paid prior to commencement of civil works and handing over the site to the contractors.

86. The government is developing the new satellite town of Sarpang (Shechamthang) using the land pooling approach wherein 112 land owners pooled (voluntarily donated) 30% of their land for the development of common urban infrastructure. Of these, 93 land owners fall within the core area and along the main north-south road which will be funded under the project. The land pooling agreement was reached with the households in 2011. It was confirmed that no poor or vulnerable households participated in land pooling. The due diligence process (including third-party independent assessors report) confirms that there was no asymmetry in information availability, land inclusive of non-land assets was voluntarily pooled, no coercion was involved, and that the process was undertaken in a fair and transparent manner. Compensation for non-land assets was paid in line with government policy. Third-party certification and due diligence further confirmed that the land pooling process—initiated as early as 2011—was not undertaken in anticipation of the ADB-funded project.<sup>25</sup>

87. Under the Rangjung water supply scheme in Trashigang, the rehabilitation of 2.5 kilometers (km) of transmission line and 6 break pressure tanks will be undertaken affecting 46 land owners. This land was obtained by the government more than 10 years ago through voluntary donation for an existing water supply scheme with no transfer of title involved. The agreements with landowners in Rangjung and their third-party validation will be appended to the updated DDR. All social safeguards documents were submitted to ADB for review, approval, and have been publicly disclosed.

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<sup>25</sup> Land pooling agreement with land owners was reached in 2011. Shechangthang Local Area Plan had been endorsed and released by the Ministry of Works & Human Settlement on vide letter no. 2/MoWHS/DHS/PD-Sarpang/2012/459 dated 14 June 2012. Land pooling was done voluntarily and not in anticipation of ADB financing and therefore, does not trigger Safeguard Requirements 2: Involuntary Resettlement principles (Appendix 2 of Safeguards Policy Statement).

88. A grievance redress mechanism has been developed for the project (Appendix 5) and consultations will continue with local communities throughout the implementation period.

89. Semi-annual environmental and social monitoring reports will be prepared by implementing agency for ADB's review and disclosure.

90. The project is classified category C for indigenous peoples as per ADB's Safeguards Policy Statement (2009). The socioeconomic survey and consultations do not reveal the presence of any distinctive and separate indigenous people living in the project areas.<sup>26</sup> Due diligence further confirms that the project will not have any impacts on indigenous peoples as the project sites are mostly located in urban areas with no indigenous people communities living in the project sites.

91. The PMU and PIUs will be assisted by the Social and Gender Specialist of the PMSC to monitor project compliance on social safeguards. The Project managers of the PIUs with support from other PIU staff will conduct field observations and consultations with local communities. The following are institutional roles and responsibilities to ensure social safeguards requirements are followed during design and construction stages.

92. **Project management unit in the Department of Engineering Services, Water and Sanitation Division** on behalf of responsible state agencies will:

- (i) ensure that the resettlement plan provisions are adhered to and the draft resettlement plans and DDRs prepared during project processing are updated based on detailed designs;
- (ii) engage in ongoing meaningful consultations with stakeholders and affected persons particularly through implementation;
- (iii) review, approve, prepare resettlement plans and/or DDRs for new subprojects or components if any, with support from the national social and gender specialists of PMSC;
- (iv) inform ADB regarding any unanticipated impacts identified during project implementation, prepare the required corrective action plan and implement the same;
- (v) support PIUs for establishment of project GRM at local level (first and second level of GRM) and ensure all grievances are addressed in a timely manner;
- (vi) conduct oversight and develop effective mechanism to monitor implementation of resettlement plans/indigenous people plans (if any) to ensure smooth project implementation; and
- (vii) review the consolidated monthly reports by PMSC social and gender specialist and submit semi-annual monitoring reports to ADB (Outline for semi-annual social safeguards monitoring report is provided in Appendix 9). 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.

93. **Project Implementation Units – Samdrup Jongkhar, Sarpang and Trashigang.** The PIU field offices will receive assistance from the national social and gender specialist of PMSC. The PIU field officers with oversight of PIU project managers will:

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<sup>26</sup> As defined by ADB SPS, 2009.



- (i) update the draft resettlement plans prepared during project implementation in case of any design changes;
- (ii) ensure provision of timely payments and assistance to affected people, and all proposed compensation and mitigation measures by the dzongkhag/ thromde administrations to the affected persons before displacement/ impact occurs in sections ready for construction; ensure that compensations are paid to affected persons prior to award of contract. If any further unanticipated impacts will occur based on actual alignments of the infrastructure, then with support of PMSC and PMU, prepare updated resettlement plans to address such impacts outlining any additional compensations required, which should be paid to affected persons prior to handing over of such sites to contractors;
- (iii) screen impacts and prepare new resettlement plans (if required) in accordance with ADB SPS and government rules;
- (iv) engage in ongoing meaningful consultations with stakeholders and affected persons to assess and address their concerns;
- (v) ensure timely payments and other assistance to the affected persons and ensure that all compensations have been paid by the dzongkhag/ thromde administrations and mitigation measures are in place prior to award of contract; any additional compensations arising due to change in alignments and outlined in updated resettlement plans should be paid to affected persons prior to handing over site to contractors and commencement of construction;
- (vi) implement the ADB approved resettlement plans;
- (vii) advise and/or recommend ways to minimize or avoid social safeguards impacts;
- (viii) prepare and implement corrective actions in the event of any unanticipated impacts occurring during implementation to minimize and/or avoid social safeguards impacts;
- (ix) prepare and submit monthly social safeguards monitoring reports to PMU and support PMU in preparation of semi-annual safeguards monitoring reports for submission to ADB;
- (x) establish GRM at town level and address any grievances brought about through the GRM in a timely manner; and
- (xi) facilitate redressal of grievances at PIU level.

**94. Roles of PMSC social and gender specialist (pertaining to social safeguards):**

- (i) Coordinate and work with PIUs for the conduct of public consultations and day-to-day monitoring of subproject implementation;
- (ii) Lead the conduct of training activities as per capacity development program, including GRM implementation;
- (iii) Ensure that DDRs and Resettlement plans are updated when there will be changes in scope or components or alignments under the subproject;
- (iv) Assist MOWHS and PMU in the following aspects:
  - (a) ensuring overall compliance with government rules and regulations and ADB SPS in terms of social safeguard requirements for the subprojects; and
  - (b) preparing the semi-annual social monitoring reports for ADB.
- (v) Ensure disclosure of DDRs and resettlement plans in locations accessible to the public and in form and language understood by the local stakeholders.

95. The project will ensure that all the requirements prescribed in Schedule 5 of the loan agreement, and the following safeguards documents that have been prepared with respect to the project, are complied with during the processing and implementation of STUDP:

- (i) IEE reports; and
- (ii) resettlement plan and social safeguards DDRs.

### C. Grievance Redress Mechanism

96. The project is required to have a mechanism to give avenue for peoples who are affected by the project to submit their grievances and a mechanism for the project to resolve grievances received from affected people.

97. The project GRM follows a tiered system, starting at the local level. The GRM structure has been agreed with the concerned agencies and a notification of the GRM structure as shown in Figure 5 below and the Grievance Redress Committee (GRC) composition have been provided by MOWHS. See government notification in Appendix 5. The GRM will ensure that grievances and complaints regarding land acquisition, compensation and resettlement or other social and environmental issues will be addressed in a timely and satisfactory manner. People in the towns will be made aware of their rights and the detailed procedures for filing of grievances. PIUs will be undertaking outreach activities to make people aware of the GRM and have it published on the *thromde* or *dzongkhag* and MOWHS websites. GRM will also be displayed at notice boards in the PIU offices.

98. **First level of Grievance Redress Mechanism.** Aggrieved persons may first approach the contractor's site representative and/or project manager in case of complaints related to construction related nuisances. The complaint must be recorded in the site register and contractor should provide a resolution to the complaint within 2 days. In case, the complaint is not resolved at this level, the aggrieved persons can then file a complaint with the PIU office. Aggrieved persons are entitled to lodge complaints regarding any aspect of the land acquisition, entitlements, benefits or rates of payment as well as any project related social or environmental issues. Complaints can be made verbally or in written form. Complaints made to the PIU should be resolved within 3 days. All complaints must be recorded by the PIU, including actions taken to resolve the complaint. Complaints, their nature and resolution should be mentioned in the quarterly progress reports. A sample grievance registration form is appended as Appendix 6.

99. **Second level of Grievance Redress Mechanism.** At this level, the PIU Manager and/or municipal level will coordinate with the *Dzongkhag* or *Thromde* Municipal Committee which should be in place prior to project implementation. This committee will be comprised of: (i) *Dzongda* (district administrator) or *thrompon* (mayor) as Chairman; (ii) municipal engineer (PIU project managers) as member secretary; (iii) district engineers; (iii) district or municipal planning officer; (iv) district or municipal legal officer; (v) district or municipal environmental officer; (vi) district or municipal land record officer, (vii) town representatives (elected); and (viii) gender focal person of PIUs. The aggrieved person who filed the complaint (or representative/s from the affected household/s) will be called to present his or her case and deliberation on the case will be done through proper hearing or mediation. It will be the responsibility of the *dzongkhag* or *thromde* committee to resolve the issue within 15 days from the date the complaint is received. Minutes of meeting of the *Dzongkhag* or *thromde* committee meeting will be kept and resolution provided will be recorded for purposes of project monitoring.

100. If the complaint is unresolved at this level, the PMU, PIU or the District Administrator will

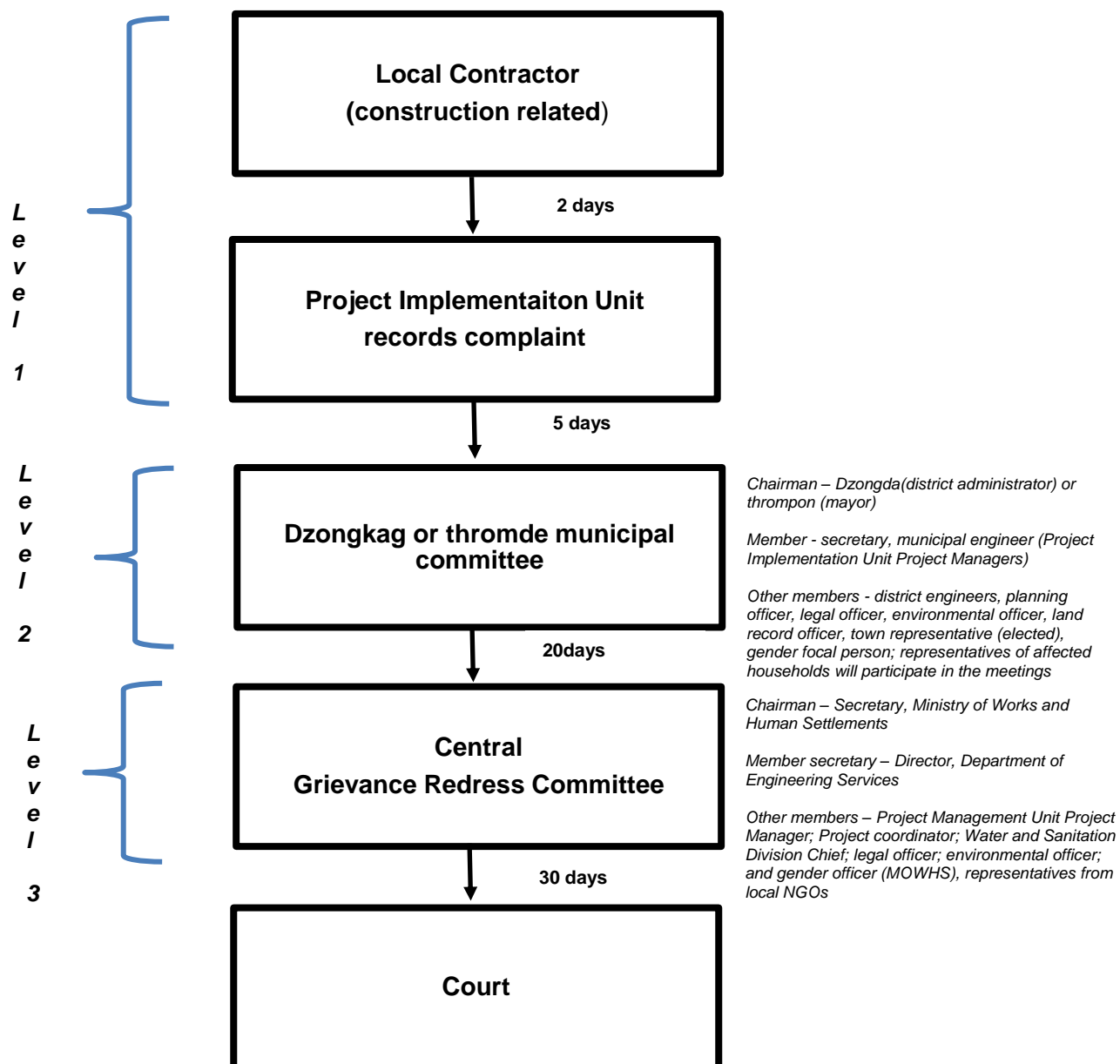
inform the aggrieved person accordingly and assist them in elevating the complaint to the PMU or Central Grievance Committee.

101. **Third level of Grievance Redress Mechanism.** Grievances not redressed at the *Dzongkhag* or *thromde* municipal committee within 15 days will be brought to the Central Grievance Redress Committee at MOWHS level. The Central Grievance Redress Committee will comprise of: (i) Secretary, MOWHS (Chairman); (ii) Director, DES (Member secretary); (iii) Project manager, PMU; (iv) Project coordinator, PMU; (v) Water and Sanitation Division Chief; (vi) legal officer, MOWHS; (viii) environmental officer, MOWHS; (ix) gender officer (MOWHS); and (x) representatives from local NGOs. It will be the responsibility of the dzongkhag or thromde committee to resolve the issue within 10 days from the date the complaint is received. In the event, the grievance is still not resolved; the matter may be elevated by the aggrieved person to an appropriate court of law. The court will have the final authority to approve or reject the case. Aggrieved persons may seek recourse through legal system at any stage of the GRM process.

102. The GRM notwithstanding, an aggrieved person shall have access to the country's legal system at any stage. This can run parallel to accessing the GRM and is not dependent on the negative outcome of the GRM.

103. In the event that the established GRM is not able to resolve the issue, the affected persons can also use the ADB Accountability Mechanism through directly contacting (in writing) the Complaint Receiving Officer at ADB headquarters. The complaint can be submitted in any of the official languages of ADB's Developing Member Countries. The ADB Accountability Mechanism information will be included in the Project Information Document to be distributed to the affected communities, as part of the project GRM.

Figure 5: Grievance Redress Process



104. **Recordkeeping.** Records will be kept by the PIU of all grievances received, including contact details of complainant, date the complaint was received, nature of grievance, agreed corrective actions and the date these were effected, and final outcome.

105. **Costs.** All costs involved in resolving the complaints (meetings, consultations, communication, and information dissemination) will be borne by the municipalities that will operate and maintain the infrastructures.

106. **Capacity Building.** PMU staff will be further trained and assisted by PMSC's social and gender specialist. PMU staff supported by PMSC social and gender specialist, will further brief/train the design engineers, as well the contractors. Typical modules would be as follows: (i) introduction and sensitization to ADB SPS on involuntary resettlement and indigenous peoples policies and requirements; (ii) review, update and prepare the resettlement plan and DDRs upon the completion of project detailed design; (iii) improve coordination within nodal departments; (iv) integrating safeguards monitoring into the monitoring and reporting system; and (v) project's GRM. Briefings on safeguards principles and GRM will also be conducted to the NGOs, and contractors upon their mobilization by PMSC social and gender specialist. The modules will be designed to address areas of improvements required by PMU and PIUs such as the need for timely updating and disclosure of safeguard documents, timely submission of monitoring reports, conducting meaningful consultation with project affected people and strengthening implementation of GRM.

107. **Civil Works Contracts.** PIUs 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 PIUs will ensure that all compensations are paid prior to award of contracts. If any further unanticipated impacts will occur based on actual alignments of the infrastructure, then PMU will ensure the preparation of updated resettlement plan to address such impacts outlining any additional compensations required, which should be paid to affected persons prior to handing over of such sites to contractors. 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 by the PMU and PIUs. Contractors will carry out all environmental and social mitigation and monitoring measures outlined in their contract. PMSC specialists will assist the PMU in monitoring contractor's compliance activities.

#### **D. Health and safety**

108. The project will be required to provide workers with a safe and healthy working environment, considering inherent risks, any hazards in the work areas, including physical, chemical, biological, and radiological hazards (if any). The SPS also requires that the government, through the implementing agency, will take steps to prevent accidents, injury, and disease arising from, associated with, or occurring during the course of work. ADB will review that the PMU and PIU ensures that the project adheres to government health and safety requirements and employs international good practices, as reflected in internationally recognized standards such as the World Bank Group's Environmental Health and Safety Guidelines.

## **E. Prohibited investment activities**

109. Pursuant to ADB SPS (2009), ADB funds may not be applied to the activities described in the ADB Prohibited Investment Activities List set forth in Appendix 5 of the Safeguard Policy Statement (2009).

## **VIII. GENDER AND SOCIAL DIMENSIONS**

110. The Project is classified as effective gender mainstreaming (EGM) and a GAP in Appendix 1 is formulated and agreed by MOWHS which analyses gender equality aspects and empirical results from the proposed project areas. The GAP will guide the mechanism and methods to address key gender equality issues in water supply distribution system in development and implementation of subprojects. It seeks to deliver the following outputs: (i) 800 new connections to improved metered water supply (which includes 100% coverage of female-headed households (FHHs) and poor households in project area); (ii) 250 new connections to networked sewerage, which include institutions and households (includes 100% coverage of FHHs and poor households in project area); (iii) collection of baseline information on women's time poverty; (iv) snapshot impact evaluation of project on women in terms of reduction in time poverty, improved health and satisfaction with water quality etc. conducted to ascertain women customer's satisfaction with improved water supply; (v) orientation on gender concepts and compliance with core labor standards for project stakeholders including contractors; (vi) project urban infrastructure facilities designed with participation of at least 30% women; (vii) designation of gender focal persons in each PIU and the PMU; (viii) monitoring of project gender results through the GEMS of the National Commission for Women and Children; (ix) community consultation prior to tariff increases; (x) HIV and human trafficking prevention outreach sessions conducted in border towns; (xi) community awareness (including that of schools and other institutions) on WASH practices; water conservation; gender, solid waste segregation at source and reduction, HIV/AIDS and human trafficking increased through behavior change campaigns and dissemination of informational education communication material; and (xii) capacity building workshops on gender mainstreaming and operation and maintenance and asset management of municipal infrastructure (PMU and PIU staff). The terms of reference (TOR) for the recruitment of NGO for GAP implementation is in Appendix 2.

111. A tariff rationalization guideline will be prepared under the project which will consider affordability and include measures such as lifeline tariffs for poor or vulnerable households. Contractors and construction workers will be made aware on communicable diseases including HIV/AIDS risks as well as risks and mitigation measures pertaining to human trafficking. The NGO hired to undertake the GAP activities in collaboration with the PIUs and social and gender specialist of PMSC will undertake awareness raising activities for various stakeholders as outlined in the GAP. The PIU will conduct public awareness program on the opportunities for communities to work in the project, and will also urge the recruitment of women to work in the project if the required skills are met, and equal pay will be enforced. The bidding documents provide clauses designed to ensure that all civil works contractors comply with applicable labour laws; do not employ child labour or forced labour; encourage the employment of the poor, particularly women, with equal pay for equal work.

112. The participation strategy for the Project envisages awareness generation for community groups on project benefits, tariff structures (including lifeline tariffs), improved water, sanitation, hygiene practices and improved household level solid waste management practices. Participatory processes are anticipated to enhance sustainability. Consultations will be documented and reported in the periodic monitoring reports. The gender focal persons of the PIUs will ensure that

women through their local community organizations are invited to the public consultations, community outreach, and awareness and training activities.

113. The project envisages health benefits and time savings to women as water fetchers and care-givers. It also envisages long-term institutional capacity to promote inclusive development in project towns. PMU with support of the PIUs will be responsible for implementing, monitoring and reporting on progress of GAP supported by gender focal persons in PIUs and MOWHS (PMU level) and social and gender specialist of the PMSC. PIU gender focal persons will work in close collaboration with the NGO for implementation of the GAP activities in the field. The budget for GAP implementation has been absorbed in cost item B1 in Table 9 and Table 10, i.e., Detailed Cost Estimates by Financier and Detailed Cost Estimates by Outputs, respectively. This includes the engagement of an NGO with 61 person-month inputs.

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

### A. Project Design and Monitoring Framework

Impact the Project is Aligned with: Balanced and sustainable development of human settlements in Samdrup Jongkhar, Sarpang, and Trashigang ensured (Eleventh Five Year Plan, 2013–2018) <sup>a</sup>			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
<b>Outcome</b> Quality, efficiency, and sustainability of urban services improved	By 2024: <u>Samdrup Jongkhar, Sarpang, and Trashigang towns:</u>  a. 24x7 water supply provided to 90% of household and institutions (2017 baseline: average 12 hours daily water supply provided to 60% household and institutions)  b. Nonrevenue water reduced to not more than 15% (2017 baseline: average 50%)  c. 100% of annual O&M cost of project facilities financed by government transfers, revenues and tariffs (Baseline: n/a)  <u>Samdrup Jongkhar town:</u>  d. Collection of sewage increased to 75% (2017 baseline: 25%)  <u>Sarpang town:</u>  e. 8.5 hectares of urban land developed for mixed use (2017 baseline: 0)	a–b and d–e. PMU Project completion report  c. Financial statements of Sarpang and Trashigang <i>dzongkhags</i> and Samdrup Jongkhar <i>thromde</i>	Change in government could delay adoption of tariff framework

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
<b>Outputs</b>  1. Urban infrastructure expanded and/or upgraded	<p>By 2023:</p> <p><u>Samdrup Jongkhar, Sarpang, and Trashigang:</u></p> <p>1a. A total of 46.8 km of additional water transmission lines constructed, 36.7 km of new distribution pipelines constructed, and 2.5 km of existing water transmission pipelines upgraded and/or rehabilitated (2017 baseline: 32.3 km existing transmission lines, 0 km distribution lines)</p> <p>1b. Six new ground level service reservoirs constructed with a total storage capacity of 1,300 m<sup>3</sup> (2017 baseline:0)</p> <p>1c. Two new water intake structures with 3.5 MLD capacity constructed (2017 baseline: 0)</p> <p>1d. One WTP with a capacity of 1.2 MLD constructed and commissioned and one WTP upgraded to 1 MLD (2017 baseline: 0 and 1 WTP with 0.6 MLD capacity)</p> <p>1e. 800 new metered water supply connections provided (685 residential and 115 institutional) (2017 baseline: 0)</p> <p><u>Samdrup Jongkhar:</u></p> <p>1f. 2.5 km of sewage collection pipelines constructed with 250 new connections provided (210 residential and 40 institutional), (2017 baseline: 0 km sewage collection pipeline, 0 connections)</p> <p><u>Sarpang:</u></p> <p>1g. 9.0 km of new and improved drains and 3.74 km of new roads constructed (2017 baseline: 0 km drains, 0 km roads)</p>	1a–g. Quarterly progress reports, review mission reports, municipality statistics, and MOWHS annual reports	Extreme events (such as flash floods) delay implementation



Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
2. Capacity of institutions and local communities strengthened	<p>By 2023:</p> <p><u>Samdrup Jongkhar, Sarpang, and Trashigang:</u></p> <p>2a. Staged water tariff framework developed (2017 baseline: n.a.)</p> <p>2b. At least 3,500 people (at least 40% women) report improved knowledge on gender and public health-related issues such as water conservation, solid waste segregation and reduction, and water, sanitation, and hygiene (2017 baseline: 0)<sup>b</sup></p> <p>2c. 50 staff from PMU and PIUs and other municipal units reported improved knowledge and skills in O&amp;M and asset management of municipal infrastructure, of which at least 25% are women (2017 baseline: n.a.)</p> <p>2d. Project gender equality results monitored through GEMS of the National Commission for Women and Children (2017 baseline: n.a.)</p>	2a–d. Quarterly progress reports, review mission reports, MOWHS annual reports	

#### Key Activities with Milestones

##### 1. Urban infrastructure expanded and/or upgraded

- 1.1 Statutory environmental clearances for subprojects obtained (Q1 2018–Q4 2019)
- 1.2 Detailed engineering designs completed for all subprojects (Q2 2019)
- 1.3 Civil works contracts awarded ensuring gender-sensitive designs (Q3 2018–Q3 2020)
- 1.4 Water supply systems completed and commissioned (Q1 2020–Q1 2023)

##### 2. Capacity of institutions and local communities strengthened

- 2.1 Gender focal persons appointed in PIUs (Q2 2018)
- 2.2 Project GEMS established and functional (by Q3 2018)
- 2.3 Training plan for municipal and *dzongkhag* administration urban officers prepared (Q3 2019)
- 2.4 Training on O&M of urban infrastructure conducted (Q2 2020–2023)
- 2.5 Tariff increase implementation guidelines and action plans finalized (Q2 2020)

#### Project Management Activities

- Individual consultants for detailed engineering designs recruited (Q2 2017–Q1 2019)
- Project management and supervision consultant firm recruited (Q3 2018)
- NGO for GAP implementation recruited (Q4 2019)
- Institutional development specialist recruited (Q2 2019)

#### Inputs

- Asian Development Bank: \$10 million (concessional loan from ordinary capital resources)
- The Kingdom of Bhutan: \$2 million

#### Assumptions for Partner Financing

Not applicable

GAP = gender action plan, GEMS = gender equality monitoring system, km = kilometer, m<sup>3</sup> = cubic meter, MLD = million liters a day, MOWHS = Ministry of Works and Human Settlements, n.a. = not applicable; NGO = nongovernment

organization, O&M = operation and maintenance, PIU = project implementation unit, PMU = project management unit, PPMS = project performance management system, Q = quarter, WTP = water treatment plant.

<sup>a</sup> The Royal Government of Bhutan, Gross National Happiness Commission. 2013. *Eleventh Five-Year Plan, 2013–2018*. Thimphu. The Twelfth Five-Year Plan is under preparation as of May 2018.

<sup>b</sup> This target is based on observed women's participation in the consultation activities during the project preparatory period, which averaged 30%.

Source: Asian Development Bank.

## B. Monitoring

114. **Project performance monitoring.** The PMSC will assist the PMU to monitor project performance 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>27</sup> Any changes that will be proposed to be made in the project design and monitoring framework would need approval of government authorities and ADB management.

115. Within 12 months of loan effectiveness, the PMU will establish a project performance management system (PPMS) using the targets, indicators, assumptions, and risks in the design and monitoring framework (DMF). The PPMS will take into account the important monitoring parameters in addition to those included in the DMF and will cover the three areas: (i) project performance monitoring; (ii) compliance monitoring; and (iii) safeguards, gender and social dimension monitoring. Project director and PMU team will be responsible for project performance monitoring. The baseline data corresponding to indicators and targets set out in the DMF and PPMS will be determined from the detailed design reports. Disaggregated baseline data for output and outcome indicators gathered will be updated and reported quarterly through the executing agency's quarterly progress reports and after each ADB review mission. Results of a comprehensive completion survey will be included in the project completion report.

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

117. **Safeguards monitoring.** Monitoring and supervising of social and environmental safeguards will be integrated into the PPMS. PMU will submit separate semi-annual environmental and resettlement monitoring reports to ADB, which will be reviewed and disclosed on ADB's website. The monitoring reports will be prepared by PMU with assistance from the PMSC safeguards and gender specialist and environment specialist and inputs from the PIU's environment officers and other field staff, contractors and NGOs, where relevant. The status of safeguards implementation, issues, grievances received and resolved, and corrective actions are to be clearly reported to ADB and will also be discussed at each ADB review mission, with necessary issues and agreed actions recorded in Aide Memoires. The outline of semi-annual environmental monitoring report is in Appendix 7. The outline of the social safeguard semi-annual monitoring report is in the Appendix 9. ADB will also carry out annual environmental and/or social (including gender) reviews of the Project. The supervision, quality control and enforcement of

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<sup>27</sup> ADB's project performance reporting system is available at <http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>.

contract provisions is the responsibility of the PMU/PIU and the PMSC. The responsibility for preparation and implementation of the contractor's environmental management plan (CEMP) is with the Contractor, which will be monitored by the environment officers of the PIUs.

118. **Gender and social dimensions monitoring.** The implementation of the gender and social dimension will be the responsibility of the PMU which will be supported by the PIU. The gender focal person of MOWHS will support the PMU in monitoring the gender action plan and reporting. Gender focal persons of the PIUs will monitor the action plan at the town level and report to PMU and gender focal person of MOWHS. Social and gender specialist of PMSC will provide capacity building support to the PMU and/or PIUs and will assist PMU and/or PIUs for monitoring the gender action plan. The progress of GAP will be monitored through the GEMS of the NCWC which has established a template specifically for the project and will grant the PMU access to the overall GEMS interface so that data from project can be aggregated into the national gender monitoring database.

119. The progress of GAP implementation will be closely reviewed and monitored at each ADB review mission and incorporated in the quarterly progress reports as well as evaluation reports and sent to ADB. Sex disaggregated database will be developed and data updated bi-annually during implementation. The evaluation of GAP implementation will be carried out as part of benefit monitoring, including at project completion. Core labour standards, including equal wage for women and men for work of equal value, will be closely monitored. GAP monitoring reports will be submitted by PMU semi-annually to ADB. The outline of GAP implementation semi-annual; progress update report is in Appendix 12.

## C. Evaluation

120. MOWHS and ADB will jointly review the project at least twice a year. This includes (i) the performance of the PMU, PIU, consultants and contractors; (ii) physical progress of the project, effectiveness of safeguards; (iii) compliance with loan assurances; and (iv) assessment of operational sustainability in technical and financial terms, including water tariff determination. In addition to the regular loan reviews, the MOWHS and ADB will undertake a comprehensive midterm review in the third year of project implementation to identify problems and constraints encountered and suggest measures to address them. Specific items to be reviewed will include: (i) appropriateness of scope, design, implementation arrangements, and schedule of activities; (ii) assessment of implementation progress against project indicators; (iii) capacity development of PMU and/or PIUs for ensuring sustainability; (iv) compliance with safeguard measures; (v) extent to which the activities to provide gender benefits have been undertaken; (vi) lessons learned, good practices, and corrective actions; and (vii) changes recommended. Within 6 months of physical completion of the Project PMU will submit a project completion report to ADB.<sup>28</sup>

## D. Reporting

121. MOWHS, PMU will provide ADB with the following reports which are subject to web disclosure in compliance with ADB's *Public Communications Policy* (2011): (i) quarterly progress reports in a format consistent with ADB's project performance reporting system within 30 days of

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<sup>28</sup> Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>.

the end of each quarter; (ii) semi-annual safeguards monitoring reports (environmental and social);<sup>29</sup> (iii) semi-annual GAP monitoring reports;<sup>30</sup> (iv) 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 implementation plan for the next 12 months; (v) a project completion report within 6 months of physical completion of the project;<sup>31</sup> and (vi) audited consolidated project financial statements and associated auditor's reports within 6 months of the end of each fiscal year. 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

122. The GAP activities have a strong social outreach theme. The GAP implementation NGO will prepare the information, education and communication materials for awareness generation on issues of water, sanitation, hygiene, solid waste reduction and segregation at source, HIV/AIDS and prevention of human trafficking (refer GAP for frequency of outreach through radio, TV, etc). The GAP activities will target urban communities as well as institutions such as schools and local police.

123. The PIUs, supported by the PMSC, will manage project level communications during implementation of the Project. Main activities, amongst other will be to:

- (i) Develop, implement and manage an effective public relations plan for promoting the benefits of the Project and disseminating information to associated project stakeholders, general public and NGOs on how well social and environmental aspects are taken care of and what benefits are attributed to communities;
- (ii) Proactively organize public relations events as required;
- (iii) Develop and maintain a project website to disseminate information and implementation progress, and also provide a feedback and communication system for stakeholders and general public. The project website/s will also cover procurement and safeguards information; and
- (iv) Prepare a photographic and video diary of the construction works of the Project to show construction activities, progress, and interviews with MOWHS, PMU, PIUs, PMSC, contractors, government and Thromde staff, and stakeholders. It will be prepared with high professional standard and disseminated through the MOWHS and dzongkhag/thromde websites.

124. The key message to stakeholders and primary audience with frequency are provided in Table 15.

**Table 15: Stakeholder Communication Strategy**

Project information to be communicated	Means of Communication	Responsible Agency	Audience(s)	Frequency
Report and Recommendation of the	ADB website (linked documents)	ADB	ADB, MOWHS, NGOs	Once

<sup>29</sup> Outlines are provided in Appendix 7 and Appendix 10.

<sup>30</sup> Outline is provided in Appendix 12.

<sup>31</sup> Project completion report format is available at: <https://www.adb.org/sites/default/files/institutional-document/33431/pai-6-07a.pdf> (Appendix 2).

<b>Project information to be communicated</b>	<b>Means of Communication</b>	<b>Responsible Agency</b>	<b>Audience(s)</b>	<b>Frequency</b>
President			beneficiaries, and the Royal Government of Bhutan	
Procurement and bidding documents	Invitations for bids published on the MOWHS, dzongkhag/ thromde websites, newspapers, ADB website	PMU/ PIUs	Contractors and local suppliers of goods and services	During the procurement period
Construction	1. The selected construction company(s) will ensure that the construction areas will have signage boards with their contact information  2. Provision of Advance notice of construction schedule	PIU	ADB, MOWHS, local stakeholders, general public	During the construction period
Progress status during construction works and construction issues	Signage boards on site	PIU	General public	Over the construction period
Project performance reports	ADB and MOWHS websites	ADB and PMU, MOWHS	Beneficiaries, stakeholders, and Government of Bhutan	Quarterly reports
Safeguards monitoring (Environment and social monitoring reports)	ADB website	ADB and PMU, MOWHS	ADB, CSOs, beneficiaries, and the Kingdom of Bhutan	Semi-annual reports
Project Completion Report	ADB website	ADB and PMU, MOWHS	ADB, MOWHS, project beneficiaries	After the project

ADB = Asian Development Bank, CSO = civil society organization, MOWHS = Ministry of Works and Human Settlements, NGO = nongovernment organization, PIU = project implementation unit, PMU = project management unit.

## **X. ANTICORRUPTION POLICY**

125. The Borrower, the executing agency, and all implementing agencies are advised of ADB's Anticorruption Policy (1998, as amended to date).<sup>32</sup> Consistent with its commitment to good governance, accountability and transparency, implementation of the project and subprojects shall adhere to ADB's Anticorruption Policy.

126. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project (footnote 34). In this regard, investigation of government officials, if any, would be requested by ADB to be undertaken by the Government or State Government as the case may be. All contracts financed by ADB shall include provisions

<sup>32</sup> Anticorruption Policy: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>.

specifying the right of ADB to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants, and other service providers. Individuals and/or entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the project.

127. To support these efforts, relevant provisions are included in the loan agreement and the bidding documents for the project. The mitigation measures are identified in a governance risk assessment conducted as part of the project preparation per the Second Governance and Anticorruption Action Plan.<sup>33</sup>

128. ADB's Anticorruption Policy designates the Office of Anticorruption and Integrity (OAI) as the point of contact to report allegations of fraud or corruption among ADB-financed projects or its staff. For a more detailed explanation refer to the Anticorruption Policy and Procedures. Anyone coming across evidence of corruption associated with the project may contact the Anticorruption Unit by telephone, facsimile, mail, or email at the following numbers/addresses:

by email at [integrity@adb.org](mailto:integrity@adb.org) or [anticorruption@adb.org](mailto:anticorruption@adb.org)  
by phone at +63 2 632 5004  
by fax to +63 2 636 2152

by mail at the following address (Please mark correspondence Strictly Confidential):

Office of Anticorruption and Integrity  
Asian Development Bank  
6 ADB Avenue Mandaluyong City  
1550 Metro Manila, Philippines

## **XI. ACCOUNTABILITY MECHANISM**

129. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.<sup>34</sup>

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

130. All revisions/updates during course of implementation should be retained in this Section to provide a chronological history of changes to implemented arrangements recorded in the PAM, including revision to contract awards and disbursement s-curves.

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<sup>33</sup> Governance and Anticorruption Action Plan II Guidelines. <http://www.adb.org/Documents/Guidelines/GACAP-II-Guidelines.pdf>. See also Sourcebook: Diagnostics to Assist Preparation of Governance Risk Assessments. <http://www.adb.org/documents/books/Diagnostics-to-Assist-Preparation-of-GRAs/default.asp>.

<sup>34</sup> Accountability Mechanism. <http://www.adb.org/Accountability-Mechanism/default.asp>.

### GENDER ACTION PLAN

Activities	Targets and Indicators	Responsibility	Time Frame
<b>Output 1: Urban infrastructure expanded and/or upgraded</b>			
1. Raise awareness on the benefits and importance of the project to the target population, especially women	<b>Sarpang, Trashigang and Samdrup Jongkhar</b> <ul style="list-style-type: none"> <li>Project awareness workshops conducted for residents in each project town (2017 baseline: 258 people, 30% women) (Target: Total 600 residents, 30% women)</li> </ul>	District engineering office, PIUs, project preparatory technical assistance team and thromde staff	During project design stage and Year 1 of implementation
2. Orient program staff and contractor(s)'s teams on complying with core labor standards, including ensuring women's equitable access to construction jobs including equal pay for work of equal value of women and men	<ul style="list-style-type: none"> <li>Provisions for preferential employment of women laborers provided in all construction-related works (skilled/unskilled)</li> <li>All bidding documents include relevant clauses on CLSs, such as equal pay for work of equal value of women and men</li> <li>All contractors maintain labor registers showing name, sex, and wage of workers (2017 baseline: n/a)</li> <li>One on-site orientation per works contract conducted for contractors' teams and PIU staff on key gender concepts and compliance with CLS</li> </ul>	MOWHS-PMU gender focal person, NGO with support from PIU gender focal persons, social and gender specialist (PMSC)	Year 1 (2018–2019)
3. Ensure access of vulnerable households and FHHs to water connection, (with water meters), and connection to drainage or sewerage	<ul style="list-style-type: none"> <li>New connections to improved metered water supply provided (2017 baseline: total of 448 existing metered connections in three towns) (Target: 800 connections, 100% connections for FHHs and poor in coverage area)</li> <li>New connections to networked sewerage provided (2017 baseline: 112 existing connections) (Target: 250 additional connections, 100% connections for FHH and poor in coverage area)</li> </ul>		During project implementation
4. Establish sex-disaggregated data base of vulnerable households and FHHs and assess impact of the project's improved water supply services on female beneficiaries assessed	<ul style="list-style-type: none"> <li>Master list of vulnerable households and FHHs, including socio-economic profile covering 100% of the population in the three towns prepared (2017 baseline: n/a)</li> <li>Baseline information on women's time poverty prevalence of waterborne disease and satisfaction with water quality collected. (2017 baseline: n/a) (Target: one assessment per town, 300 beneficiaries)</li> <li>Impact of project on women in terms of reduction in time poverty and waterborne diseases and satisfaction with water quality assessed (Target: one assessment per town, 300 beneficiaries, demonstrating increased satisfaction)</li> </ul>	MOWHS-PMU gender focal person, NCWC, NGO, PIU gender focal persons, social and gender specialist PMSC	After physical completion of infrastructure works
<b>Output 2: Capacity of institutions and local communities strengthened</b>			
1. Establish institutional mechanisms for effective GAP monitoring and implementation	<ul style="list-style-type: none"> <li>Project gender results monitored through the GEMS of the NCWC<sup>a</sup> (2017 baseline: n/a)</li> <li>One gender focal person in PMU and each PIU designated and trained in use of project GEMS (2017 baseline: 0) (Target: four)</li> <li>Semi-annual gender monitoring reports with recommendations for successful GAP implementation prepared (2017 baseline: n/a)</li> <li>Minimum 20% women in project staffing (2017 baseline: n/a)</li> </ul>	MOWHS-PMU gender focal person, PIU gender focal persons, project steering committee, social and gender specialist (PMSC), NCWC	Throughout project implementation
2. Conduct capacity building workshops on gender mainstreaming or municipal infrastructure and awareness	<ul style="list-style-type: none"> <li>100% staff of PIUs and PMUs reported better appreciation of and skills in WASH practices, social participatory planning and implementation approaches and mitigation of key risks such as HIV/AIDS and human trafficking (2017 baseline: 0%) (Target: 15 staff with 20% women)</li> </ul>	MOWHS-PMU gender focal person, PIU gender focal persons, GAP NGO, social and	During project implementation



Activities	Targets and Indicators	Responsibility	Time Frame
seminars on human trafficking issues and mitigatory measures for key stakeholders (PMU, PIUs, border zone police, contractors)	<ul style="list-style-type: none"> <li>Representatives of all contractors reported improved sensitivity to gender issues and gender mainstreaming in urban infrastructure development<sup>b</sup> (2017 baseline: n/a) (Target: eight people)</li> <li>Collaboration with local NGOs, border police and health department on HIV/AIDS awareness and prevention and HTAP established (2017 baseline: n/a) (Target: at least six meetings conducted in total including one joint stakeholder meeting per border town targeting total of 50 people with at least 20% women's participation)</li> <li>PMU/PIUs and other municipal units reported improved knowledge and skills in O&amp;M and asset management of municipal infrastructure (2017 baseline: 0) (Target: 50 participants; at least 25% women)</li> </ul>	gender specialist (PMSC), NCWC	
3. Awareness raising on health, waste segregation and reduction, environment and gender issues conducted in local institutions	<ul style="list-style-type: none"> <li>Awareness training activities conducted in local institutions like schools and health units (2017 baseline: 0) (Target: one institution and one school per town targeting 200 people, with participation of 30% women and/or girls)</li> <li>Train the teachers sessions held in local school in each town (2017 baseline: 0) (Target: 20 teachers trained, including 40% women teachers)</li> </ul>	MOWHS-PMU gender focal person, NGO, PIU gender focal persons, social and gender specialist (PMSC)	Year 2–5 of project implementation
4. Prepare IEC materials for awareness on gender and health related issues (e.g., prevention of HIV/AIDS, human trafficking associated with infrastructure development in border zone areas, behavior change for improved WASH practices)	<ul style="list-style-type: none"> <li>Illustrations and radio/TV material on behavior change for improved WASH practices, water conservation, waste reduction or segregation, gender, tariff increases, HIV/AIDS and HTAP awareness prepared (2017 baseline: n/a)</li> <li>IEC material disseminated through various media channels (e.g., radio, TV-BBS, MOWHS website, newspapers, facebook and wechat) (2017 baseline: n/a) (Target: for media outreach outputs refer TOR of GAP NGO)</li> <li>HIV/AIDS awareness and HTAP signboards placed within border areas (2017 baseline: n/a) (Target: four signboards per border town)</li> <li>Booklet with school competition drawings prepared (2017 baseline: n/a)</li> </ul>		Year 2–5 of project implementation
5. Conduct campaigns to sensitize communities on (a) gender and health issues; (b) WASH; (c) need for household connections; (d) proposed tariff structure and staged increases; (e) HIV or human trafficking prevention	<ul style="list-style-type: none"> <li>Outreach meetings for tariff sensitization<sup>c</sup> (2017 baseline: 0) (Target: at least one meeting per town prior targeting 1,800 people with 30% women)</li> <li>HIV and HTAP outreach sessions conducted in border towns (2017 baseline: n/a) (Target: one per town targeting 400 people with 30% women)</li> <li>Outreach sessions on solid waste segregation and reduction, water conservation and WASH conducted (2017 baseline: 0) (Target: 3500 beneficiaries with 40% women's representation)</li> <li>WASH-themed drawing competitions held in three local schools- one per town (2017 baseline: n/a) (Target: 150 students with at least 50% girls)</li> </ul>	MOWHS-PMU gender focal person, NGO, PIU gender focal persons, PMU	Year 2–5 of project implementation

AIDS = acquired immune deficiency syndrome; BBS = Bhutan broadcasting service; CBO= community based organization; CLS = core labor standards; IEC = information, education and communication; FHHs = female-headed households; GEMS = gender equality monitoring system; HIV = human immunodeficiency virus; HTAP = human trafficking awareness and prevention; MOWHS = Ministry of Works and Human Settlements; NCWC = National Commission for Women and Children; NGO = nongovernment organization; O&M = operation and maintenance; PIU = project implementation unit; PMU = project management unit; PMSC = project management and supervision consultant, WASH = water, sanitation and hygiene, TOR = terms of reference.

<sup>a</sup> NCWC and MOWHS will work jointly to monitor gender equality results and ensure timely submission of GAP reports.

<sup>b</sup> To include topics such as CLS, conducive environment for participation of women in construction activities, zero tolerance to child labor, mitigation measures for HIV/AIDS transmission and human trafficking, encouraging behavior change for improved WASH practices at construction sites and basic OH&S orientation.

<sup>c</sup> GAP implementing NGO will liaise with thromde dzongkhag administrations regarding the timing and willingness for tariff increases in each town.



## **TERMS OF REFERENCE FOR NGO TO IMPLEMENT THE GENDER ACTION PLAN OF THE SECONDARY TOWNS URBAN DEVELOPMENT PROJECT**

### **A. Overview**

1. Bhutan is a small landlocked country in South Asia, located in the eastern Himalayas between emerging economic giants of the world, India and China. The Kingdom is home to a population of about 672,000, spread over an area of 38,500 square kilometers with about 70% of land under forest cover. Since the past couple of decades, the Kingdom of Bhutan has experienced rapid social and economic growth because of prudent macroeconomic management, beneficial exploitation of hydropower resources, and support from development partners. Also, the country has seen significant political changes and transitions in recent years. Bhutan's political system has evolved from an absolute monarchy into a constitutional monarchy, following a decade of planning and consultations.

2. The social and economic transition is fueling rapid urbanization. Since 2000, the urban population in Bhutan is estimated to have grown by about 4.7% per year. Starting from a low base, the urban population now accounts for about a third of total population, and is expected to reach 50% by 2020. Rapid urban growth is generating a host of major challenges for the hilly country of scattered small settlements. Meeting the challenges of urban development, management and finance has become a key developmental agenda for the Kingdom of Bhutan and international development partners.

3. The Government of Bhutan therefore intends to implement the Secondary Towns Urban Development Project, proposed to be financed by the Asian Development Bank (ADB) under a concessional loan. The project will cover a range of infrastructure such as water supply, sewerage/sanitation, storm water drainage and roads in Sarpang, Samdrup Jongkhar, and Trashigang.

4. The Project is designed to achieve balanced and environmentally sustainable urban development in the identified priority towns by harnessing mixed-development approaches that integrate the natural terrain and resources in urban planning, design and construction. In line with this and the Kingdom of Bhutan's urban development priorities of balance and sustainability, the Project aims to employ a creative approach consistent with a rapidly urbanizing Bhutan. These intertwining approaches employed consist of:

- (i) promoting balanced urban development through provision of infrastructure in lagging urban centers to increase their economic potential;
- (ii) development of climate resilient and sustainable infrastructure that is inclusive to the urban poor; and
- (iii) strengthening sector and institutional capacity for delivering sustainable urban infrastructure and services.

### **B. Objective and Purpose of the Assignment**

5. The Ministry of Works and Human Settlement (MOWHS) of the Kingdom of Bhutan will engage the services of a nongovernmental organization (NGO) to support the effective implementation of the ADB-supported Secondary Towns Urban Development Project. The contracted NGO will coordinate and provide expert inputs to the implementation of the Gender Action Plan (GAP) of the project which includes outreach activities.

### C. Scope of Work

6. Specifically, in coordination with the National Social, Gender and Safeguards Specialist (at the PMU), the NGO will:

- (i) Conduct a sample baseline survey and end-project impact survey to assess the immediate outcomes and impacts of the project on women and on gender relations in the households, communities, contracting agencies, and concerned government agencies;
- (ii) Ensure that all activities stated in the GAP and this TOR are implemented efficiently, effectively, and gender responsively, and all target outputs are achieved as envisaged;
- (iii) Mobilize the participation of identified key stakeholder groups in the implementation of the GAP and community outreach activities;
- (iv) Regularly monitor and evaluate the progress of implementation of the GAP and outreach activities;
- (v) Submit semi-annual GAP progress reports to be attached to the project's (quarterly) progress reports and substantially respond to comments to these reports; prepare and submit quarterly reports to the PMU;
- (vi) Alert the executing agency and ADB during the medium-term review (MTR) of the Project if revisions in the planned activities and targets of the GAP and outreach activities are assessed to be demanded by the objective conditions on the ground or by the changing situational context; and provide recommendations for approval of the executing agency and ADB;
- (vii) Based on the requirements of the executing and implementing agencies and ADB, submit a GAP implementation completion report at the end of the project to be integrated and attached to the Project Completion Report; and
- (viii) During project implementation, produce and disseminate at least the following Information, education and communication materials through the proposed social media channels. This should be budgeted in the proposal.
  - (a) At least seven types of illustrated pamphlets produced and distributed and uploaded on MOWHS and thromde websites and distributed to people in target thromdes on behavior change for improved WASH practices, water conservation and solid waste reduction and segregation;
  - (b) HIV/AIDs awareness and human trafficking prevention signboards placed within the border areas (as per targets in GAP);
  - (c) At least four Radio Talkbacks prepared and aired—1 hour per week for 1 month;
  - (d) At least four small videos produced for TV and advertisement Spots secured on Bhutan Broadcasting service: 2 to 3 minutes per day for 2 weeks every quarter during Years 1 to 2; and
  - (e) Information disseminated through social media channels—facebook and we-chat, MOWHS and thromde websites (if any).

### D. Staffing Requirements

7. To effectively perform the above listed tasks, the NGO is expected to field the following team of six experts for a total of 61 person-months:

- (i) **Project Manager/Community Mobilization and Gender Specialist** (22 person-months), who will (i) orchestrate and oversee the implementation of the GAP in all thromdes; (ii) ensure the quality completion of deliverables and targets as specified in this ToR and in the GAP; (iii) supervise the Community Facilitators; (iv) prepare

quarterly and annual reports for submission to PMU; (v) prepare training design on gender mainstreaming in infrastructure projects; (vi) take a lead role in the conduct of gender sensitivity training; and (vii) prepare semi-annual GAP monitoring reports. S/he will be a graduate of sociology or related field, and will have at least 7 years of experience in mobilizing public participation, community development techniques particularly related to infrastructure development. Experience of working on programs for the poor and disadvantaged groups in externally funded projects is also desirable;

- (ii) **Communication Specialist** (8 person-months), who will (i) prepare a communication plan; (ii) coordinate with media outlets, make use of all available communication platform; and (iii) prepare illustration materials, small videos (for air on TV), audio spot (for radio) and messages related to issues mentioned in GAP, stakeholder outreach activities. S/he will be a graduate of Communication Arts with knowledge and experience in the preparation of information, education, communication materials;
- (iii) **Community Development Coordinator** (10 person-months), who will (i) lead the Community Mobilizers; (ii) assist in conducting the gender training workshops; (iii) coordinate the GAP activities at the thomde level; (iv) monitor the implementation of activities and achievement of the targets of the GAP and associated outreach activities ; (v) oversee the development of the capacity of community-based volunteer groups (CBVGs) to spread awareness and gather baseline data on poor and vulnerable households (including FHHs), through structured surveys; and (vi) lead and coordinate with support from Community Mobilizers (and sub-contracted survey firm if required) the survey activities. S/he will be a graduate of sociology or related fields with at least 3 to 5 years of experience in research and community development work around gender issues. She or he will have thorough knowledge of gender issues and their implications on development projects and of techniques in mobilizing community participation in development programs; and
- (iv) **Community Mobilizers** (3 persons, 7 person-months each), who will (i) assist in conducting the gender training workshops; (ii) implement GAP and outreach activities at the thomde level; (iii) organize community-based volunteer group to assist in awareness creation etc.; and (iv) assist in undertaking surveys. They will be graduates in sociology or related fields with at least 3 to 5 years of experience in research and community development work around gender issues. S/he will have thorough knowledge of gender issues and their implications on development projects and of techniques in mobilizing community participation in development programs.

## E. NGO Qualification Requirements

8. The contracted NGO should have a proven track record in Gender and Development (GAD) and in mobilizing communities for social development initiatives, particularly of projects supported by overseas development agencies, for at least 7 years. The NGO must have a good background in conducting participatory community-based works including public consultations and focus group discussions (FGDs), must be capable of managing a team of various disciplines, and must have a presence or currently operating in at least one of the target towns/ districts.

## F. Reporting

9. The NGO will report to the MOWHS Project Management Unit (PMU) specifically to the Social Development, Gender and Safeguards Specialist and work closely with the Project

Manager of the PMU/PIU. The NGO will be required to document all field activities and maintain detailed records of the ways it is performing its tasks and the results it has achieved.

10. An inception report (five copies) should be submitted to the Project Manager of PMU, MOWHS within 1 month of field placement. Monthly and quarterly report summaries will also be submitted to the Project manager PMU, in an agreed format. The report summaries should give an overview of the achievements in numerical terms and document the minutes of meetings held with various stakeholders (including subject matter discussed, list of participants, and understanding / appreciation of the disseminated information by the stakeholders). The NGO will play the lead role in writing the semi-annual GAP monitoring reports, for submission to ADB.

**G. Timeframe**

11. The total contract duration of the NGO will be for 61 person months spread over 4 years.

## TERMS OF REFERENCE FOR SUPPORT TO THE PROJECT MANAGEMENT UNIT ON PROJECT MANAGEMENT AND SUPERVISION CONSULTANCY (PMSC) - NATIONAL COMPETITIVE SELECTION

### A. Background

1. The proposed project supports the government's vision of a balanced and environmentally sustainable urban development as initiated under the project preparatory technical assistance (PPTA) for Secondary Towns Urban Development Project (STUDP). The proposed project will engage mixed-development approaches that integrate the natural terrain and resources in urban planning, design and construction.
2. The impact of the project is balanced and sustainable development of human settlements in Samdrup Jongkhar, Sarpang, and Trashigang ensured. The expected outcome is that the quality, efficiency, and sustainability of urban services improved (see Figure 1 showing the map).
3. To achieve outcomes, the project will have two outputs:
  - (i) **Output 1: Urban infrastructure expanded and/or upgraded** will support (i) construction 46.8 km of new water transmission lines and 36.7 km of new water distribution pipelines, and upgrading of 2.5 km of existing pipelines; (ii) construction of six new ground-level service reservoirs with total storage capacity of 1,300 cubic meters; (iii) construction of two new water intake structures with 3.5 million liters per day (MLD) capacity; (iv) commissioning of one new water treatment plant with 1.2 MLD capacity and augmenting one water treatment plant from 0.6 MLD to 1.0 MLD capacity; (v) provision of 800 new metered water supply connections (685 residential connections and 115 institutional connections), covering 100% of the population in the project area; (vi) construction of 2.5 km of sewage collection pipelines with 250 new connections (210 residential connections and 40 institutional connections), covering 100% of the population in the project area in Samdrup Jongkhar; and (vii) provision of 9 km of new and improved drains and 3.74 km of new roads in Sarpang.
  - (ii) **Output 2: Capacity of institutions and local communities strengthened** will include: (i) developing a staged water tariff framework for the three project towns; (ii) conducting awareness-raising campaigns for at least 3,500 people (40% women) on gender and public-health-related issues such as water conservation; solid-waste segregation and reduction; and water, sanitation, and hygiene; (iii) improving knowledge and skills on O&M and asset management of municipal infrastructure for 50 staff (at least 25% women) from the project management unit (PMU), project implementation units, and other municipal units; and (iv) monitoring project gender equality results through the gender equality monitoring system of the National Commission for Women and Children.
4. The infrastructure subprojects included in the project for the three towns and completed detailed designs for the priority projects are shown below in Table 3.1. The executing agency for the project (PMU) will be the Ministry of Works and Human Settlements (MOWHS) and the implementing agencies (PIU) will be the *Thromde* and *Dzongkhag* Administrations of the selected towns, in particular their Municipal Engineering Divisions.

**Table 3.1: Selected Subprojects for Secondary Towns Urban Development Project**

<b>Thromde (Dzongkhag)</b>	<b>Subprojects</b>	<b>Status of Detailed Design (Priority Subprojects for Advance Contracting)</b>
<b>Dewathang and Samdrup Jongkhar (Samdrup Jongkhar)</b>	Dewathang Water Supply system Project	
	Rehabilitation of Samdrup Jongkhar Water Supply System Improvement Project	Detailed Design completed
	Samdrup Jongkhar Sewerage Project	
<b>Shechamthang (Ranibagan) and Sarpang Tar (Sarpang)</b>	Development of Shechamthang LAP Infrastructure: Roads, Drainage and Water Supply Project	Detailed Design completed
	Sarpang Water Supply Development Project	Detailed Design completed
<b>Trashigang and Rangjung and (Trashigang)</b>	Trashigang Water Distribution Network Improvement Project	Detailed Design completed
	Rangjung Intake and WTP Rehabilitation Project	

**B. Objectives of the Consulting Services**

5. Consultants will be recruited and engaged to assist the Kingdom of Bhutan in the efficient and effective implementation of the Secondary Towns Urban Development Project (STUDP).

6. With the exception of the PIU Construction Engineers, the consultants will be based in the MOWHS office in Thimphu and will work closely alongside the PMU and respective divisions of Department of Engineering Services (DES), but will need to travel frequently to the towns for liaison with the PIU staff. The PIU Construction Engineers will be based in the towns and will work alongside the PIU Project Managers. The three PIU Construction Engineers will work exclusively in, Samdrup Jongkhar, Sarpang and Trashigang,

7. The contract is time-based, not output-based. This means that although the outline Terms of Reference (TOR) indicates likely tasks, the client/government may require other works (from time to time) not specifically listed in the TOR to be undertaken. Unless the consultants can clearly justify that additional time is required for such requests, no extra person-months will be allowed.

**C. Support to PMU (on Project Management, Design and Supervision) Consultants Tasks**

8. A project management unit (PMU) for this project has been established at the Department of Engineering Services (DES) of the MOWHS. The MOWHS through the DES is the executing agency. The PMU will be responsible for overall management, supervision, and execution of the project. The PMU is headed by a Project Director supported by a full time Project Manager, assisted by an Assistant Project Manager and consultants.

9. The roles and responsibilities of the PMU are as follows:

**Planning and Design Phase:**

- (i) Prepare all components of the project and guide the PIUs in preparing for and implementing the project;
- (ii) Prepare the PIUs for project organization and overall project implementation readiness;
- (iii) Coordinate and liaise with the various design teams and the interdepartmental design teams to ensure timely delivery of design outputs and bidding documents;
- (iv) Ensure that all ADB and/or the government's social, safeguard and environment regulations and/or statutory requirements and related issues are properly incorporated into the design and implementation phases of the project;
- (v) Obtain necessary clearances and approvals if the same is to be obtained from the central level. If the approvals are mandated at the local level then the responsibility to obtain the approval will rest with respective PIUs/Municipalities; and
- (vi) Carry out environmental and social safeguards due diligence appropriate to the proposed project and prepare/ update necessary safeguard documents

**Procurement Phase:**

- (i) Be responsible for the preparation of bidding documents for contracts for works, equipment and services (in close cooperation with the PIUs and the relevant entities/individuals for the designs);
- (ii) Advise/Assist the PIUs in managing the tendering procedures, contract awarding, and equipment purchase; and
- (iii) Procure equipment and services for institutional strengthening, revenue mobilization and project implementation assistance, as required for successful implementation of loan.

**Implementation Phase:**

- (i) Conduct periodical reviews of the physical and financial progress, and compliance to contract conditions;
- (ii) Together with the PIUs, prepare the fund management and reimbursement plans;
- (iii) Undertake disbursements of funds to the various claimants on a timely manner so that contractual obligations of the payment is fulfilled;
- (iv) Facilitate timely payments to the contractors, design teams and suppliers;
- (v) Undertake the reporting requirements of the projects encompassing all the statutory requirements of the ADB and/or the Government;
- (vi) Develop a grievance redressal mechanism and dispute resolution mechanism as and when they arise (to be also under PIU); Ensure and monitor implementation of the project, carried out by the PIU with assistance from design teams (if necessary);
- (vii) Carry out project accounting and submit regular reports as required for the project; provide support during annual external audit exercise;
- (viii) Develop the M&E framework and conduct project monitoring as agreed with ADB in the project performance management system (PPMS);
- (ix) Develop/Revise Initial environmental examination (IEE) reports including associated environmental management plans (EMP) based on detailed design and ensure these are included in bidding and contract documents and prepare the semi-annual environmental monitoring reports to be submitted to ADB;

- (x) Prepare resettlement plans and semi-annual safeguards monitoring reports (if required);<sup>1</sup> and
- (xi) More specifically, major tasks of the PMU will include, but not be limited to, the following:
  - (a) Oversee establishment of agreed institutional arrangements and policy requirements under the project;
  - (b) Ensure availability of necessary resources and equipment for PIU for successful and efficient project implementation;
  - (c) Facilitate overall coordination among relevant government ministries and entities to ensure successful implementation;
  - (d) Carry out project planning, involving updating of project schedule;
  - (e) Assist the PIU in conducting land acquisition and resettlement, if required;
  - (f) Support the PIUs and NGO/firm implementing the Gender action plan (GAP) in implementing the GAP and consultation and participation plan and preparing the GAP reports to be submitted to ADB;
  - (g) Assist the PIUs to prepare and review the initial environmental examinations (IEEs) and update these documents, where necessary based on the detailed designs, monitor implementation of environmental management plans (EMPs) for all subprojects, and oversee new environmental assessments for projects being planned and designed in accordance with ADB's and the government's safeguards requirements;
  - (h) Monitor project progress, suggest corrective actions and carry out necessary reporting to ADB and the government;
  - (i) Be responsible for budget, cost control and necessary reporting, and coordination with the relevant ministries and the Project Steering Committees;
  - (j) Facilitate auditing requirements of the project;
  - (k) Strengthen capacity of the PIU to ensure delivery of tasks and assignment to the highest level of standards; and
  - (l) Preparation of the project completion report.

10. The primary task of the support to PMU National firm will be to assist the Department of Engineering Services (DES), the PMU and PIUs in planning and implementation of the sub-projects as well as monitoring and supervision of contracts under the Project. The support to PMU will be engaged for a period of 152 months and will generally cover the preparation of contract documentation, tender evaluation, construction management, support with preparing monitoring reports, capacity building and institutional support for the MOWHS and the recipient Dzongkhag and Thromde municipal engineering divisions. International consultants and one national Construction Supervision Coordinator shall be hired individually by the MOWHS whereas the national consultants will be hired through a firm. Together with MOWHS staff, they will comprise the PMU. A consulting firm (152 person-months of national consultants) will be engaged for the project following the quality- and cost-based selection method (QCBS).

11. The contract is expected to commence during the third quarter of 2018 and, subject to performance, continue until June 2023 with intermittent inputs.

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<sup>1</sup> The loan is currently classified as Category C for social safeguards as per ADB's Safeguards Policy Statement (2009) as no resettlement or land acquisition impacts are envisioned. However, resettlement plans will need to be prepared if land acquisition or displacement will need to be effected for any of the sub-projects.



## Scope of Services – PMSC

12. The scope of work of the **PMSC** includes the following:

### Planning and Design Phase

13. Consultants involved in the design will be hired as individual consultants who will work with the relevant department/divisions at the MOWHS. The PMSC will:

- (i) Coordinate and liaise with the various design teams and the interdepartmental design teams to ensure timely delivery of design outputs and bidding documents;
- (ii) Ensure that all ADB and/or the government's social, safeguard and environment regulations/statutory requirements and related issues are properly incorporated into the design and implementation phases of the project;
- (iii) Assist the PMU/PIU in obtaining necessary clearances and approvals if the same is to be obtained from the central level; and
- (iv) Carry out environmental and social safeguards due diligence appropriate to the proposed project.

### Procurement Phase

- (i) Be responsible for (in close cooperation with the PMU/PIUs and the relevant entities/individuals for the designs) the preparation of bidding documents for contracts for works, equipment and services;
- (ii) Advise/assist the PMU/PIUs in managing the tendering procedures and contract awarding, and equipment purchase;
- (iii) Be a member of evaluation committee; and
- (iv) Procure equipment and services for institutional strengthening, revenue mobilization and project implementation assistance.

### Implementation Phase

- (i) Conduct periodical reviews of the physical and financial progress, and compliance to contract conditions;
- (ii) Together with the PMU/PIUs, prepare the fund management and reimbursement plans;
- (iii) Support PIUs with project related financial record keeping (payments released based on sectional works completed, verification of accounts etc.);
- (iv) Facilitate timely payments to the contractors, design teams and suppliers;
- (v) Supervise the works and ensure quality of construction of the civil works carried out by the contractor;
- (vi) Verify the claims/bills submitted by the civil contractors;
- (vii) Contribute in the preparation of Reporting requirements of the projects encompassing all the statutory requirements of the ADB and/or the government;
- (viii) Support the recording, resolution and documentation of the grievances through grievance redress channels set up under the loan;
- (ix) Ensure and monitor implementation of the project, carried out by the PIU with assistance from design teams (if necessary);
- (x) Develop the monitoring and evaluation framework and conduct project monitoring as agreed with ADB in the project performance management system (PPMS);
- (xi) Develop/revise IEEs and EMPs based on detailed design and ensure these are included in bidding and contract documents;
- (xii) More specifically, major tasks of the PMU that the firm shall support will include, but not be limited to, the following:

- (a) Ensure availability of necessary resources and equipment for PIU for successful and efficient project implementation;
- (b) Assist in facilitating overall coordination among relevant government ministries and entities to ensure successful implementation;
- (c) Carry out project planning, involving updating of project schedule, identifying corrective actions and supporting with implementation of corrective actions;
- (d) Assist the PIU in conducting land acquisition and resettlement (if required-refer footnote 3);
- (e) Assist the PIUs to prepare and implement the project gender action plan, consultation and participation plan;
- (f) Assist the PIUs to review the initial environmental examinations (IEEs) and update, where necessary on detailed designs, monitor implementation of environmental management plans (EMPs) for all subprojects, and oversee new environmental assessments for projects being planned and designed in accordance with safeguard frameworks;
- (g) Prepare semi-annual environmental and social safeguards monitoring reports (as required) for submission to ADB;
- (h) Monitor project progress and carry out necessary reporting to ADB and the government, including the preparation of quarterly project reports;
- (i) Be responsible for budget, cost control and necessary reporting, and coordination with the relevant ministries and the PSCs;
- (j) Facilitate Auditing requirements of the project; and
- (k) Capacitate the PMU and PIU to ensure delivery of tasks and assignment to the highest level of standards.

## Staffing

14. The support to PMU on project management and supervision consultancy (PMSC) will consist of the following National Experts.

**Table 3.2 National Experts supporting PMSC**

SI No	Position	Input (person-month)
<b>A: DESIGN AND PROCUREMENT PHASE</b>		
<b>National Consultants</b>		
1	Financial/Economic Specialist	2
2	Procurement Specialist (Team Leader)	7
<b>Total Consultant Person Months Design Phase</b>		<b>9</b>
<b>B. MANAGEMENT AND SUPERVISION PHASE</b>		
<b>National Consultants</b>		
1	Financial/Economic Specialist	4
2	Social and Gender Safeguards Specialist	10
3	Environmental Specialist	14
4	Procurement Specialist/PPMS Specialist (Team Leader)	7
<b>Implementation</b>		

<b>SI No</b>	<b>Position</b>	<b>Input (person-month)</b>
5	PIU Construction Engineers (3 x 36 PM each)	108
	<b>Total Consultant Person Months Mgmt/Supervision Phase</b>	<b>143</b>
	<b>TOTAL PM</b>	<b>152</b>

15. Note that international consultants and national Construction Supervision Coordinator shall be hired individually by MOWHS/PMU. Only the national consultants will be hired through a firm. Detailed terms of reference for consultants to be recruited under PMSC are provided below.

## Terms of Reference for PMSC Consultants

16. The Terms of Reference for each of the proposed Specialists is outlined below.

### A. Financial/Economic Specialist (National, 6 person-months)

17. The national Financial and Economic Specialist will preferably have a post-graduate degree in finance and economics with five years' experience conducting financial and economic assessments for urban infrastructure development and municipal projects.

18. He/she will work closely with his/her international counterpart who will be hired as an individual consultant. The duties and tasks of the Financial/Economic Specialist include, but not limited to:

- (i) Update economic analysis of the Project, including the EIRR and cost-benefit values based on detailed cost estimates following completion of detailed designs;
- (ii) Update the financial analysis based on detailed cost estimates following completion of detailed designs;
- (iii) Working with the Institutional Specialist, review tariff structure for water supply and sewerage in each of the targeted towns to determine whether the true cost is being adequately recovered and/or being subsidised through a transparent mechanism. Facilitate establishment of tariffs sufficient to support sustainable O&M;
- (iv) Coordinate with the MOWHS Accounts Division on the accounting system being used, develop and establish a sound financial management system, establish the project accounting and disbursement system;
- (v) Working with the Accountants, prepare account details during the implementation phase which maybe (but not necessarily limited to) preparation of, compilation of project accounts, accounts details related to the project completion reports etc.;
- (vi) Supporting in financial accounting of spending of loan funds, preparing budget projections for next six months. Supporting in the preparation of withdrawal application, and consolidation of loan accounts.;
- (vii) Train MOWHS staff involved in the project and PIU to maintain the disbursement according to the ADB guidelines;
- (viii) Assist PIU/PMU, in the tender evaluation committee and be responsible for the evaluation of bids related to financial soundness of the bidders; and
- (ix) Any other works assigned by PMU or PIU.

### B. Social Development, Gender and Safeguards Specialist (National, 10 person-months)

19. The Social Development, Gender and Safeguards Specialist will preferably have a master's degree in sociology, social sciences, geography, urban planning or equivalent with 8 years' experience in development and/or implementation of land acquisition and resettlement plans as part of the implementation of water resource management or urban infrastructure projects funded by international donors. S/he is expected to have a sound technical knowledge in social safeguards processes, including ADB's Safeguards Policy Statement and national safeguard requirements. The candidate should possess good communication (oral and written), interpersonal and teamwork skills.

20. The duties and tasks of the Social Development, Gender and Safeguards Specialist include, but not limited to:

- (i) Help ensure that all ADB and/or the government's social safeguard and social regulations/statutory requirements and related issues are properly incorporated into the design and implementation phases of the project and that the targets are met;
- (ii) Develop and implement system for monitoring the social safeguards, assist in preparing indicators for monitoring the important parameters of the safeguards (for inclusion in the PPMS);
- (iii) Contribute to the preparation of the training Plan by the institutional specialist; incorporate all training requirements to ensure no duplication of efforts and to maximize available resources;
- (iv) Organize an orientation workshop for the PIU-designated social/gender focal person and MOWHS staff involved in project implementation, on ADB Safeguards Policy Statement, 2009 and government policy; and train them on how to manage and monitor social safeguards;
- (v) Provide input and sensitize important stakeholders (including contractors) to project objectives related to poverty, gender, and social inclusion, ensuring the inclusion of the poor, women, indigenous people, and other marginalized and vulnerable groups in subprojects;
- (vi) Provide technical direction and oversight to the NGO hired to implement gender action plan (GAP), communication and participation plan. Monitor progress of GAP and support in preparing the GAP monitoring reports for submission to ADB;
- (vii) With the NGO, organize a training of contractors briefing them on GAP requirements and implementation, requirements related to mitigation measures, and on immediate actions to be taken to remedy unexpected negative social impacts or ineffective mitigation measures, if any, during implementation;
- (viii) Conduct internal monitoring of land acquisition actions; review monthly progress reports on social safeguards by PIUs; oversee monitoring surveys of affected persons as required to determine receipt of entitlements and satisfaction levels; Validate status of land and implement land acquisition procedures/compensation according to ADB SPS and requirements on involuntary resettlement; conduct regular site visits to monitor compliance to provisions of the resettlement plans (if any);
- (ix) Prepare and update the resettlement plans and due diligence reports for sub-projects as required;
- (x) Supervise and monitor implementation of the Resettlement Plans;
- (xi) Prepare corrective action plan in case slippages/ non-compliances are observed and support with the implementation of the corrective action plan;
- (xii) Assist the PMU or PIU in addressing any grievances brought about through the Grievance Redress Mechanism in a timely manner if necessary. Support in recording and documentation of grievances for inclusion in the quarterly progress reports;
- (xiii) Lead in addressing all social safeguards issues and ensuring that the project complies with government and ADB social safeguards policies;
- (xiv) Provide necessary guidance to the PMU or PIU in monitoring and reporting on social safeguards to ADB during implementation, work with the designated focal person;
- (xv) Prepare compliance reports related to the social and gender safeguard details during the implementation phase which maybe (but not necessarily limited to) Monthly and Quarterly Reports, semi-annual Social Safeguards Monitoring Reports, and such details related to the project completion reports etc.;

- (xvi) Perform other functions related to community mobilization and engagement as may be assigned by the Project Manager; and
- (xvii) Any other works assigned by PMU or PIU.

**C. Environmental Specialist (National, 14 person-months)**

21. She/he will have preferably a post-graduate degree in environmental sciences or equivalent, with 8 years' experience in environmental safeguards and in overseeing of project implementation, monitoring and/or compliance. S/he should be conversant with national environmental regulations and ADB safeguard requirements. The candidate should possess good communication (oral and written), interpersonal and teamwork skills.

22. He/she will work closely with his/her international counterpart who will be hired as an individual consultant.

23. The duties and task of the Environmental Specialist includes, but not limited to:

- (i) Help ensure that all ADB and Government safeguard and environment regulations/statutory requirements and related issues are properly incorporated into the design and implementation phases of the project;
- (ii) Assist in updating the initial environmental examination (IEE) and environmental management plan (EMP) during detailed design stage;
- (iii) Include the EMP in bidding documents and civil works contracts;
- (iv) Implement system for monitoring the environmental safeguards, assist in preparing indicators for monitoring the important parameters of the safeguards for inclusion in the PPMS (reflected in the IEE); conduct regular site visits to monitor compliance to EMP provisions including adherence to occupational health and safety provisions and core labor standards;
- (v) Work with the Institutional Specialist in preparing a Training Plan, assist in incorporating all training requirements to ensure no duplication of efforts and to maximize available resources;
- (vi) Organize an orientation workshop for the MOWHS, and Thromde/Dzongkhag officials involved in the project implementation on ADB Safeguards Policy Statement, 2009, the government's environmental laws and regulations, and environmental assessment process;
- (vii) Assist in obtaining (and renewing) necessary environmental clearances for projects prior to commencement of construction works;
- (viii) Assist in the training of contractors and PIU, briefing them on preparation of site specific EMP and its' implementation, environmental monitoring requirements related to mitigation measures, and taking immediate action to remedy unexpected adverse impacts or ineffective mitigation measures found during implementation;
- (ix) Enforce and monitor compliance with all government rules and regulations regarding site and environmental clearances as well as any other environmental requirements (e.g., permits), as relevant;
- (x) Oversee implementation of the EMP during construction, including environmental, health and safety monitoring of contractors;
- (xi) Coordinate with the safeguard specialist and PIUs on mitigation measures involving the community and affected persons;
- (xii) Take corrective actions when necessary to ensure environmental impacts are adequately mitigated by the concerned parties;

- (xiii) Assist in reviewing compliance reports by contractors and submit regular environmental monitoring reports to the PMU Project Manager and any other compliance reports related to the environmental safeguard details during the implementation phase and such details related to the project completion reports, etc.;
- (xiv) Address any grievances through the grievance redress mechanism in a timely manner as per the IEEs. Prepare record of such grievances for inclusion in the quarterly progress reports;
- (xv) Prepare compliance reports related to environmental safeguards during the implementation phase which maybe (but not necessarily limited to) monthly and quarterly reports, semi-annual environmental safeguards monitoring reports, and such details related to the project completion reports etc.; and
- (xvi) Any other works assigned by PMU or PIU.

**D. Procurement or PPMS Specialist (National, 14 person-months) (Team Leader)**

24. The national Procurement/PPMS Specialist will possess a bachelor's degree in engineering, preferably with post-graduate in construction/project management or equivalent and 10 years experience in procurement and contracts management in urban infrastructure and municipal projects. He/she is expected to be familiar with FIDIC contract conditions and with knowledge of ADB Consulting and Procurement Guidelines as well as national tendering and bidding laws and regulations. S/he is expected to have at least 8 years experience on recruitment of consultants and procurement of civil works packages; and at least 4 years experience in performance monitoring and evaluation of projects implementation.

25. The duties and task of the Procurement/PPMS Specialist includes, but not limited to:

- (i) Provide technical and management support to the PMU and PIU in the preparation of bidding documents, procurement of civil works, equipment and/or consulting services, contract bid review and evaluation and other procurement related tasks;
- (ii) Be responsible for (in close cooperation with the PMU/PIUs and the relevant entities/individuals for the designs) the preparation of bidding documents and evaluation of bids for contracts for works, equipment and services;
- (iii) Develop contract management system and provide contract management assistance including procurement plan updates, contract awards, procurement planning and other contract management tasks;
- (iv) Assist PMU and PIUs in matters related to the procurement during the implementation phase which may be (but not necessarily limited to) providing guidance to the procurement issues, preparation of compliance reports to the loan covenants, preparation of monthly/quarterly project progress reports and project completion reports, etc.;
- (v) Support financial specialists in financial consolidation and record keeping;
- (vi) Procure equipment and services for institutional strengthening, revenue mobilization and project implementation assistance;
- (vii) Prepare monitoring and evaluation framework, project performance monitoring system (PPMS) according to the agreed design and monitoring frameworks (DMFs), and in accordance with ADB's guidelines;
- (viii) Implement the PPMS and continuously monitor the progress of the project implementation against the PPMS, prepare regular progress reports, and take appropriate corrective actions on the basis of the progress reports; and
- (ix) Any other works assigned by PMU/PIU.

**E. Project or Construction Engineers (National, 3 at 36 months each)**

26. The project/construction Engineers shall possess a bachelor's degree in civil engineering with at least 5 years' experience or a diploma in civil engineering with a minimum of 10 years' experience in managing water supply/roads/sewerage/civil construction works.

27. The Project/Construction Engineers shall be assigned in the PIUs. Their primary role will be to supervise and monitor the contracts to ensure satisfactory standards, quality assurance, control of workmanship and progress and timely completion of the works. S/he will report to the PIU Project Manager but shall also coordinate with the construction supervision coordinator.

28. Their tasks and responsibilities include, but not limited to:

- (i) Review and verify the layout of construction to ensure conformity with the contract and working drawings; propose any change in the plans, if required;
- (ii) Supervise the construction activities and ensure quality of construction of the works carried out by the contractor;
- (iii) Check the measurements and certify the claims or bills submitted by the contractor for payments;
- (iv) Approve the materials and equipment brought by the contractor;
- (v) Be responsible for maintaining records i.e., measurement books, hindrance register, etc.;
- (vi) Maintain control and issuance of quality system manual, quality procedures manual, and department operating procedures manual;
- (vii) Monitor and enforce, as detailed in the Quality Assurance and Quality Control manual, the quality of input, processes, and output during all construction activities to ensure the highest quality of works, conforming to the specifications and drawings;
- (viii) Monitor compliance of contractors to EMP provisions and general review of adherence to occupational health and safety norms at construction sites;
- (ix) Examine contractors' requests for time extension, contract variations, and additional compensation, etc., and recommend appropriate decisions and actions;
- (x) Monitor physical and financial progress against the milestones according to the contracts to ensure the completion of the contracts on time;
- (xi) Review the contractors' monthly claims, verify and certify for processing by the PMU;
- (xii) Together with the Site Engineers, carry out spot inspections of goods and work;
- (xiii) Assist PIUs to resolve various contractual issues and overall contract management;
- (xiv) Prepare and submit monthly progress report to the PMU and provide feedback on quality assurance and control issues;
- (xv) Monitor the performance of the contractor during the defects liability period and supervise rectification works;
- (xvi) Assist the PIU Project Manager in the preparation of periodic and special reports which require the use of spreadsheets, statistical software, database, and presentation graphics software;
- (xvii) Maintain the quality records database(s), spreadsheets, and reports;
- (xviii) With the site inspectors, carry out testing of finished work for conformity and quality. Ensure that the work is done to the accepted and approved drawings and specification;
- (xix) Facilitate auditing requirements of the project;



- (xx) Coordinate with other specialists such as environment, social and gender, and procurement;
- (xxi) Facilitate and record receipt of grievances from communities and affected persons;
- (xxii) Ensure that any disputes arising with day to day work is resolved at site level;
- (xxiii) Advise PIUs on claims, disputes and completions and defect corrections certificates;
- (xxiv) Supervise commissioning on completion and that as built records and operation and maintenance manuals are prepared;
- (xxv) Ensure that comprehensive records of the construction works and testing are maintained; and
- (xxvi) Any other works assigned by PMU or PIU.

### Appendix to the Terms of Reference

29. The consultant firm should provide any other support staff required to carry out the consultancy services (it is suggested to include office assistant, CAD operator and driver). All estimated expenditure required for recruitment of support staff may be included under reimbursable/out-of-pocket expenses.

### Services and Facilities to be provided by the Client.

30. The Client shall provide appropriate office space for the Consultants, access to internet connection, all reports relevant to infrastructure in the towns including the PPTA reports, topographical maps and detailed statistics of the targeted area. Further, the Client will also liaise with the relevant departments or agencies for collection of relevant data/information required by the Consultant.

### Financial Proposal

31. The **Financial Proposal** of the consultant will be deemed to be inclusive of all other incidental costs for the preparation of the project deliverables.

### Schedule of Reports/Submissions

32. The consultants shall provide inputs/contribute in the preparation of reports required from the PMU, except for those which are specific to each expert. All reports and documents shall be in English.

**Table 3.3 Types of Reports and Schedule of Submissions**

Sl. No	Schedule of Reports/Submissions	No. of copies	Timeframe	Experts Involved/Lead
1	Inception report	Four copies	30 days from the date of Notice to Proceed	Team Leader
2	Project Performance Monitoring System to be set up (PPMS)			Procurement/PPMS Specialist
3	Tender Documents (including BoQ, Technical Specifications, Tender Drawings, etc.)	Four copies (Plus Soft Copy of the complete set in a CD)	1 month from the date of the completion of the final detailed design report.	Procurement Specialist with input from all team members

<b>Sl. No</b>	<b>Schedule of Reports/Submissions</b>	<b>No. of copies</b>	<b>Timeframe</b>	<b>Experts Involved/Lead</b>
4	Quarterly progress reports		Every quarter	Procurement Specialist, Environmental Specialist and Social Development, Gender and Safeguard Specialist
5	Semi-annual monitoring reports for social and environmental safeguards		Every six months	Environmental Specialist and Social Development, Gender and Safeguard Specialist
6	Gender action plan monitoring report		Every six months	Gender and safeguard expert.
7	Project Completion Report	Four copies (Plus Soft Copy of the complete set in a CD)	After the completion of the project components	Team Leader

## TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANTS (International)

### A. Institutional Expert (International, 2 Person-months, intermittently over a 6 months period)

#### 1. Tasks and Responsibilities

1. The institutional specialist will design the national urban services tariff adjustment guideline for review and approval of the Ministry of Finance. The tariff adjustment guideline should be such that it ensures financial sustainability of water supply investments in all towns [with possibility of inclusion of sufficient margin to cover wastewater operation and maintenance (O&M) costs] and each class of customers can afford the tariff. Introduction of life line tariff and increasing block tariff may be considered. As tariff increases proposed by the local government are approved by the central government, the guideline should clearly outline various factors to be considered in the calculation of tariff increase at the municipal level. He/she will coordinate with the nongovernment organization (NGO) which will be engaged in community awareness for public awareness campaign regarding potential impact of tariff adjustment.

2. The consultant will be responsible to:

- (i) Analyze tariff setting guidelines/structures of successful water utilities (2-3 case studies) to assess critical factors in balancing affordability with O&M cost recovery as well as institutional structures/ processes for approving tariff increases;
- (ii) Analyze the current tariff structure, rules and steps taken till date to update the tariff structure to keep pace with the supply and demand scenario of water supply and sewerage services in Bhutanese cities;
- (iii) In consultation with the government, develop initial tariff fixing guidelines and factors/methodology to be considered/followed for regular increase of the tariff and assist the municipalities in the implementation. Prepare strategies to implement the initial tariff increases needed after project completion. Coordinate with the gender action plan (GAP) implementing NGO on the awareness program;
- (iv) Determine which is the appropriate government unit within the national level agencies, that can handle responsibility for tariff and to which monitoring of municipal operating systems be assigned;
- (v) Update the institutional assessment/capacity development prepared by project preparatory technical assistance (PPTA) including development of an institutional and organizational framework at the local and national levels for monitoring, so that each town about to start operating newly constructed/rehabilitated systems have adequate organizational and staffing capacity to operate and maintain the systems and are ready with their tariff plan following the developed guidelines;
- (vi) Advise on the structure, skills level and capacity building required in order to upgrade the capacity of the municipalities to operate and maintain the new/upgraded systems;
- (vii) Coordinate with other project management unit (PMU) experts on their requirements for capacity building in their areas of expertise, to include them in the over-all plan for implementation of tariff increase guidelines and technical skill required for operation and maintenance of newly rehabilitated/constructed water supply and sanitation system. Prepare a training plan;

- (viii) Implement capacity building program/training plan, also by tapping existing and ongoing capacity development programs;
- (ix) Meticulously look at the procurement, operational and maintenance cost of provision of water supply services inclusive of the entire spectrum of provider's expenses, which could be considered under the tariff setting procedure. In as much as, she/he shall profoundly familiarize her/himself with the relevant water supply and sanitation policies, that provide some road map for the setting of tariff and its concomitant issues e.g. supply issues, utilization issues, environmental issues, etc.;
- (a) estimate operating expenditures over the 20-year period in at least the three towns being supported under the Secondary Towns Urban Development Project (STUDP);
- (b) Provide a methodology/ format for estimating operating expenditures over the twenty-year period in other towns;
- (x) Determine a weighted average cost of capital for long run marginal cost and required revenue calculations;
- (xi) Calculate long-run marginal cost over a 20-year period for three towns under STUDP;
- (xii) Develop a long time revenue requirement of towns in order to develop, operate and maintain their services sustainably;
- (xiii) Review appropriateness of current tariff adjustment provisions;
- (xiv) Prepare staged tariff guidelines for regular tariff adjustments with formulas etc. that can be used to assess requests for tariff increases put forth by various towns. These guidelines should be for urban centers and should be prepared after baseline and current situational assessment derived from consultations with towns and MOWHS for the endorsement by Ministry of Finance;
- (xv) Assess minimum potable water requirements for average family size and discuss costs and benefits of a cross-subsidized lifeline tariff for basic consumptions (lifeline tariff);
- (xvi) Conduct internal and broad-based seminars to discuss the tariff issues and get the customers' views in respect of the qualitative and quantitative aspects water supply and sewerage services in secondary towns;
- (xvii) Recommend a base tariff that would allow sustainable operation of the relevant water supply and sewerage services in the towns;
- (xviii) Contribute to writing of the Inception Report;
- (xix) Carryout any other tasks assigned by the PMU; and
- (xx) Coordinate with the PMU Gender focal persons, project implementation unit (PIU) gender focal persons and the Social Development/Gender Expert of the project management and supervision consultant (PMSC) to ensure the gender responsiveness of all activities and services carried out.

## **2. Qualifications and Experiences**

3. The position will needs a master's degree in economics/development economics/financial management/business management/institutional management or related fields with higher degree/studies in economics/management. He/she must have at least 10 years experience in utility management and must have experience in the analysis of pricing and recommendation of tariff structure of water utility services.

## **B. Urban Infrastructure Trainer (International, 4 person-months, intermittent inputs)**

### **1. Tasks and Responsibilities**

4. The urban Infrastructure trainer will provide training to the STUDP thomdes on the technical aspects of management of water supply, sewerage and other urban services- including design principles, and technical and financial considerations of O&M.
5. The consultant will be responsible to:
  - (i) Provide exposure to best practices on innovative technologies in urban sector, initiatives undertaken by international agencies, national and state level entities through development of training modules;
  - (ii) Conduct training needs assessment for each urban service sector;
  - (iii) Assessment of current levels and method of service delivery of urban sector through seminars, workshops and site visits;
  - (iv) Preparation of capacity needs assessment and capacity development plan for towns;
  - (v) Urban local bodies' (ULB) institutional assessment and institutional development action plans;
  - (vi) Research studies (small), case studies, development of training modules, documentation of best practices, and evaluation studies;
  - (vii) Provide training on O&M of urban infrastructure (water supply, drainage, sewerage, street lighting, among others)- especially the O&M of infrastructure being funded under STUDP;
  - (viii) Provide on-ground training in methods for reduction of nonrevenue water.
  - (ix) Advice on innovative financing and financing strategies, as appropriate;
  - (x) Conduct workshops, involving officers from the Ministry of Works and Human Settlements (MOWHS) and other officers nominated from the ULBs (e.g., knowledge dissemination on best practices in service delivery, nonrevenue water reduction, service level benchmarking, and sustainability of ULB operations);
  - (xi) Provide training on geographical information system (GIS) and municipal management; and
  - (xii) Implement an asset management and valuation system.

### **2. Qualifications and Experiences**

6. The position will needs a master's degree in environmental engineering or related field. S/he must have at least 10 years' experience in environmental engineering (water supply, waste water) including design, construction and operations and management of such urban infrastructures.

## **C. Construction Supervision Coordinator (National, 36 Person months)**

### **1. Tasks and Responsibilities**

7. The Construction Supervision Coordinator shall be assigned to the PMU. His/her primary role will be to supervise and monitor the project/ construction engineers of the PMSC stationed in the STUDP project towns and coordinate all construction related activities to ensure satisfactory standards, quality assurance, control of workmanship and progress and timely completion of the works. S/he will report to the PMU Project Manager and will undertake period site visits to monitor

progress of works and determine corrective actions in case of slippages in construction schedule and quality.

8. Tasks and responsibilities include, but not limited to:

- (i) Review and verify the layout of construction to ensure conformity with the contract and working drawings; propose any change in the plans, if required after review of PMSC;
- (ii) Work closely with the project/ construction engineers of the PMSC to ensure timely completion of works of good quality;
- (iii) Coordinate the construction activities and ensure quality of construction of the works carried out by the contractor is up to mark;
- (iv) Appraise the PMU of any major issues at sites and advise on corrective or remedial actions;
- (v) Verify the claims/bills submitted by the PIUs for release of payment;
- (vi) Prepare and closely monitor overall project implementation schedule;
- (vii) Closely supervise commissioning of works at site;
- (viii) Provide training to project/ construction engineers of the PMSC, if required;
- (ix) Maintain control and issuance of quality system manual, quality procedures manual, and department operating procedures manual at PMU level;
- (x) Support PMU in updating PPMS and preparation of quarterly progress reports and PCRs;
- (xi) Provide final quality assurance checks at work sites, including finalization of Quality Assurance and Quality Control manuals;
- (xii) Establish template or checklists for daily or weekly monitoring of works at sites- to be filled in by the contractor and monitored by project or construction engineers of the PMSC;
- (xiii) Review reports prepared by project or construction engineers of the PMSC on contractors' compliance with EMP provision, OH&S and CLS. Flag issues and recommend remedial measures, or contractual clauses that can be used to strengthen contractor performance in these areas;
- (xiv) Examine contractors' requests for time extension, contract variations, and additional compensation, etc., and recommend appropriate decisions and actions;
- (xv) Monitor physical and financial progress against the milestones according to the contracts to ensure the completion of the contracts on time;
- (xvi) Review the contractors' monthly claims, verify and certify for processing by the PMU;
- (xvii) Support PMU accounts division to prepare withdrawal applications for ADB;
- (xviii) Together with the PMSC project Engineers, carry out spot inspections of goods and work;
- (xix) Assist PIUs to resolve various contractual issues and overall contract management;
- (xx) Prepare and submit monthly progress report to the PMU and provide feedback on quality assurance and control issues;
- (xxi) Support project/construction engineers of the PMSC in monitoring the performance of the contractor during the defects liability period and supervise rectification works;
- (xxii) Assist the PMU Project Manager in the preparation of periodic and special reports which require the use of spreadsheets, statistical software, database, and presentation graphics software;

- (xxiii) Maintain the quality records database(s), spreadsheets, and reports. Compile and collate all records received from project/ construction engineers of the PMSC;
- (xxiv) With the project/ construction engineers of the PMSC, carry out testing of finished work for conformity and quality. Ensure that the work is done to the accepted and approved drawings and specification;
- (xxv) Facilitate auditing requirements of the project;
- (xxvi) Coordinate with other specialists such as environment, social and gender, and procurement;
- (xxvii) Ensure that contractors prepare CEMP and that all safeguard documents are revised based on detailed designs;
- (xxviii) Supervise commissioning on completion and that as built records and operation and maintenance manuals are prepared;
- (xxix) Ensure that comprehensive records of the construction works and testing are maintained; and
- (xxx) Any other works assigned by PMU for smooth project implementation.

## **2. Qualifications and Experiences**

9. The project/construction engineer shall possess a bachelor's degree in civil engineering with at least 5 years' experience or a diploma in civil engineering with a minimum of 10 years' experience in managing water supply/roads/sewerage/civil construction works.

### **D. Storm Water/Drainage Design Engineer (international, 4 person months)**

10. The overall objectives of the Consultancy are:

- (i) Review and advise on the existing designs and functioning of storm water/drainage infrastructure in some of the project towns;
- (ii) Work with Flood Engineering and Management Division (FEMD), PMU, STUDP, to identify and prepare designs for the most appropriate, efficient, economical and sustainable storm water/drainage systems in Khuruthang (Punakha), Samtse, Shechamthang (Sarpang) and Gelephu. The list is tentative but design of storm water/drainage systems for up to four project towns should be expected; and
- (iii) Work with and build the technical skills of FEMD staff in the design and procurement of storm water/drainage systems appropriate for Bhutan's climatic and topographical conditions.

## **1. Tasks and Responsibilities**

11. Under the Chief Engineer, FEMD and PMU, STUDP, and working with any FEMD staff designated for the purpose, prepare/lead the design and preparation of tender documents for storm water/drainage subprojects in selected project towns.

12. The responsibilities of the Storm Water/Drainage Engineer (Consultant) comprise the following:

- (i) Review the current methods/design parameters, suggest any changes he/she considers appropriate so that the proposed system designs comply with the agreed parameters;
- (ii) Conduct hydrological analyses and rainfall runoff modelling through use of spatial data sets leveraging on the availability of modern Geographic Information Systems (GIS) tool sets so that the proposed system designs comply with the agreed

- parameters. Accordingly conduct storm water/drainage network modelling to optimize the systems;
- (iii) Prepare the detailed designs, BoQ, cost estimate, technical specifications and the construction drawings needed for the proposed works using appropriate software for at least 4 towns;
  - (iv) While designing and adopting particular technology, consideration should be given for the life-cycle costs of the proposed systems, the financial and technical capacities of the respective local bodies to operate and maintain proposed system;
  - (v) Any other works related to the project as desired by FEMD; and PMU, WSD and
  - (vi) Pay particular attention to:
    - (a) planning and designing of storm water/drainage systems that adopt key Water Sensitive Urban Design (WSUD) principles of protecting existing waterways and managing storm water within the landscape through concepts such as the development of grassed or landscaped swales, infiltration trenches or bio-retention systems, wetlands or sedimentation ponds, storm water harvesting, grey water harvesting and aquifer recharge and re-use;
    - (b) preparation of storm water/drainage master plans for select project towns; and
    - (c) minimizing hazards and adverse environmental impacts at all stages.
  - (vii) Study the existing storm water/drainage systems in select project towns and advise on any improvements necessary to achieve and sustain the agreed design and service standards;
  - (viii) Incorporate successful regional and international experiences in storm water/drainage systems and management strategies used in comparable situations;
  - (ix) The consultant may advise and recommend to relevant departments and government agencies in the acquisition and deployment of pertinent field instrumentation for future improved analysis and design. The recommendation shall be documented in the form of reports;
  - (x) Provide on-the-job training and mentoring to the designated FEMD and WSD engineers on the design and procurement of storm water/drainage systems, use of relevant software, suitable technologies, etc.;
  - (xi) Be available for technical support, etc., during implementation and commissioning of the respective works if required. The Consultant is requested to respond to design queries, if any after the completion of the assignment. The expected maximum turnaround time (TAT) for such queries is 10 days. If design queries cannot be sufficiently clarified through phone or email, the Consultant will be required to come in person and any expense incurred in the process shall be borne by the Client;
  - (xii) If required, assist the ADB Projects PMU in the evaluation of the bids;
  - (xiii) Carry out field visits to the project sites as required; and
  - (xiv) Conduct any other tasks needed for successful completion of the Consultancy's objectives.

## **2. Qualifications and Experience**

- (i) A bachelor's degree or higher-level degree in civil engineering, water engineering or environmental engineering;
- (ii) A minimum of 10 years' experience in:



- (a) planning, designing and construction of storm water/drainage systems S/he is expected to have experience in the application of Integrated Urban Water Management (IUWM) and Water Sensitive Urban Design (WSUD) within an overall ethos of Integrated Water Resources Management (IWRM);
- (b) preparation of technical specifications, cost estimates, tender documents, etc., preferably according to ADB procurement procedures or similar procedures; and
- (c) preparation of detailed design reports.
- (iii) Regional/international experience in the design of storm water/drainage systems and management strategies in comparable situations;
- (iv) Familiarity with AutoCAD and other relevant computer software for hydrological analysis and drainage design; and
- (v) Excellent English speaking and writing skills.

### **3. Desired qualifications and experience**

- (i) Experience in on-the-job training and mentoring subordinates/colleagues in the design of storm water/drainage systems;
- (ii) Knowledge of climate change impacts and resilience strategies; and
- (iii) Experience in leading and managing storm water/drainage projects and design teams.

## **E. Wastewater Systems Design Engineer (international, 5 person-months)**

13. The overall objectives of the Consultancy are:

- (i) Review and advise on the existing designs and procurement for wastewater subprojects as directed by PMU, WSD;
- (ii) Work with WSD to identify and prepare designs for the most appropriate, efficient, economical and sustainable wastewater and fecal sludge collection and treatment systems initially in up to four of the following towns/communities: Tshondu and Bondey (Paro), Samtse, Shechanthang (Sarpang) and Trashigang.<sup>1</sup> The list may be revised based on needs of WSD; and
- (iii) Work with and build the technical skills of WSD staff for the design and procurement of wastewater collection and treatment subprojects appropriate for Bhutan's primary and secondary towns, including fecal sludge management.

14. Under the Chief Engineer, WSD, and working with any WSD staff designated for the project, prepare or lead the design and tender preparation of the selected wastewater collection and treatment subprojects, including, as required: centralized and decentralized wastewater treatment,<sup>2</sup> fecal sludge collection, treatment and disposal facilities, tertiary treatment effluent disposal/reuse, pumping stations, etc.

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<sup>1</sup> Detailed design is already available for wastewater supply schemes in Samdrup Jongkhar and Shechanthang (part of Sarpang).

<sup>2</sup> Including package treatment plants, passive decentralized wastewater treatment systems.

## 1. Tasks and Responsibilities

- (i) As part of this, the Consultant will:
  - (a) Review the current design/service parameters, suggest any changes he/she considers appropriate and conduct hydraulic analyses of proposed system designs to determine their compliance with the agreed parameters;
  - (b) Prepare the detailed designs, estimates, BoQ, technical specifications and the construction drawings needed for the proposed works (such as but not limited to the following towns: Tshondu and Bondey (Paro), Samtse, Shechanthang (Sarpang) and Trashigang); and
  - (c) While designing and adopting particular technology, consideration should be given for the life-cycle costs of the proposed systems, the financial and technical capacities of the respective local bodies to operate and maintain proposed system;
- (ii) Pay particular attention to:
  - (a) the requirements for successful management of wastewater at the property/household level to ensure maximum collection of all black and grey wastewater and minimum disposal on-site; and
  - (b) minimizing hazards and adverse environmental impacts at all stages;
- (iii) Study the existing wastewater systems in the selected towns and advise on any improvements necessary to achieve and sustain the agreed design and service standards. This may include system augmentation, extension, etc.;
- (iv) Study options suitable for wastewater collection and treatment for Bhutan's secondary towns in general and advise on the technologies most appropriate for the local needs, institutional capacities, environment, sustainability, and operation and maintenance capacities, etc.;
- (v) Incorporate successful regional and international experiences in wastewater collection and treatment systems and strategies used in comparable situations, especially in the field of fecal sludge management;
- (vi) Provide on-the-job training and mentoring to the designated WSD Engineers on the design and procurement of wastewater collection and treatment systems and fecal sludge management, use of relevant software, suitable technologies, etc.;
- (vii) Be available for technical support, etc., during implementation and commissioning of the respective works if required. The Consultant is requested to respond to design queries, if any, after the completion of the assignment. The expected maximum turnaround time (TAT) for such queries is 10 days. If design queries cannot be sufficiently clarified through phone or email, the Consultant will be required to come in person and any expense incurred in the process shall be borne by the Client;
- (viii) If required, assist the PMU in the evaluation of the bids;
- (ix) Carry out field visits to the subproject sites as required; and
- (x) Conduct any other tasks needed for successful completion of the Consultancy's objectives.

## 2. Qualifications and Experience

- (i) A bachelor's degree or higher-level degree in civil engineering, wastewater engineering, environmental engineering or public health engineering.
- (ii) A minimum of 10 years' experience in:
  - (a) planning, designing and construction of centralized and decentralized wastewater systems, including: primary secondary and tertiary wastewater

- treatment, passive and active systems, sewerage, pumping systems, sludge and effluent management, etc., in situations and contexts similar to Bhutan;
- (b) preparation of technical specifications, cost estimates, tender documents, etc., preferably according to ADB procurement procedures or similar procedures; and
- (c) preparation of detailed design reports;
- (iii) Regional or international experience of wastewater systems design and management strategies in comparable situations, including fecal sludge management;
- (iv) Familiarity with AutoCAD, Sewer-Cad or similar hydraulic design software; and
- (v) Excellent English speaking and writing skills.

### **3. Desired qualifications and experience**

- (i) Experience in on-the-job training and mentoring in wastewater design and management skills;
- (ii) Knowledge of integrated urban water management, water sensitive urban design and valley planning processes;
- (iii) Knowledge of climate change impacts and resilience strategies; and
- (iv) Experience in leading and managing wastewater projects and design teams.

## GRIEVANCE REDRESS MECHANISM AND GRIEVANCE REDRESS COMMITTEE NOTIFICATION



དཔལ་ལྷན་འབྲུག་གཞུང་། འབས་ཏེ་ལྷན་འབྲུག་  
**ROYAL GOVERNMENT OF BHUTAN**  
**MINISTRY OF WORKS & HUMAN SETTLEMENT**  
 DEPARTMENT ENGINEERING SERVICES  
 THIMPHU: BHUTAN

“Construction Industry: Solutions through innovation and improved technology”

DES/PMU/ ADB-8551/8 195

4.12. 2017

The Director,  
 Urban Development and Water Division,  
 South Asia Department,  
 Asian Development Bank  
 6 ADB Avenue, Mandaluyong City  
 1550 Metro Manila, Philippines

Sub: **Grievance Redress Mechanism**

Dear Sir,

The Ministry of Works and Human Settlement would like to inform that the Grievance Redress Mechanism (GRM) has been established in the Ministry and in the Project Implementation Units. The objective of the establishment of the GRM is to redress the social, environmental and other grievances of the aggrieved persons during the implementation of the Secondary Towns Urban Development Project (STUDP) BHU-8551. The flow chart, structure of the GRM committee, the procedure that would be followed is attached.

This is as per the agreement reached with the ADB during the mission from 13<sup>th</sup> November to 17<sup>th</sup> November 2017.

Thank you,

Yours sincerely,

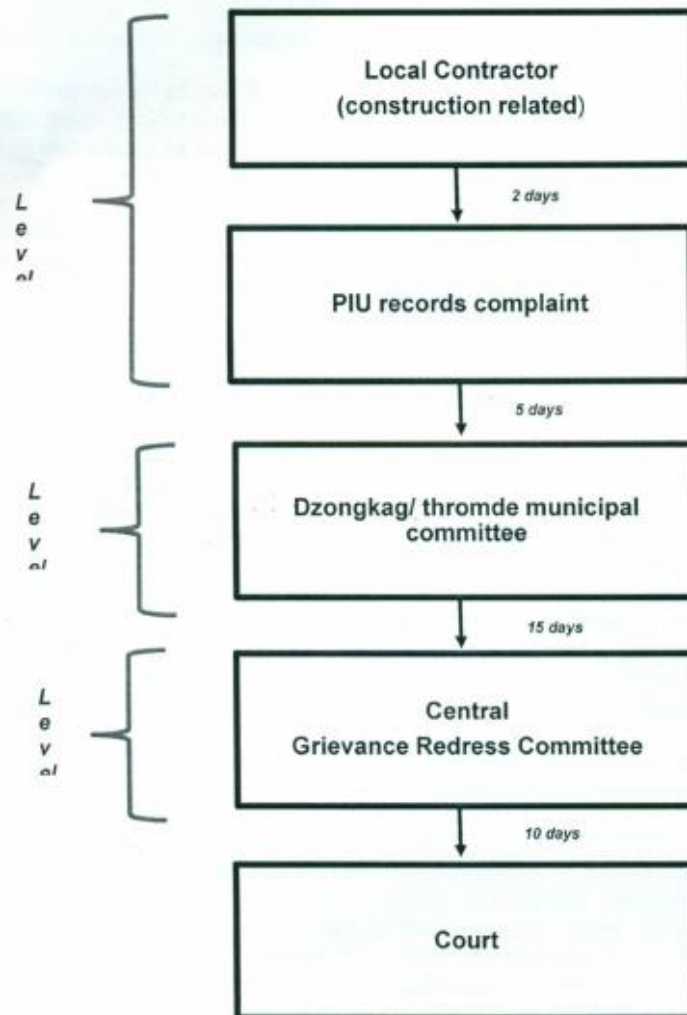
  
 (Phuntsho Wangdi)  
**Secretary**

Cc:

1. Dasho Dzongda Trashigang and Sarpang Dzongkhag
2. The Executive Secretary Samdrup Jongkhar Thromde, Samdrup Jongkhar
3. Director, Department of Engineering Services, MoWHS, Thimphu
4. Shinjini Mehta, Urban Development Specialist, SAUW, ADB, Manila, Philippines.
5. Chief Engineer, WSD, DES
6. Project Manager, ADB-8551, WSD, DES

**Grievance Redress Mechanism, STUDP**

Flow chart:



**Figure 1: Grievance Redress Mechanism, STUDP**

**Procedure and composition of GRM Committee**

1. The Project Grievance Redress Mechanism follows a tiered system, starting at the local level. The GRM structure has been agreed with the concerned agencies and a notification of the GRM structure and composition has been provided by the Ministry of Works and Human Settlements (MOWHS)



). The GRM will ensure that grievances and complaints regarding land acquisition, compensation and resettlement or other social and environmental issues will be addressed in a timely and satisfactory manner. People in the towns will be made aware of their rights and the detailed procedures for filing of grievances. PIUs will be undertaking outreach activities to make people aware of the GRM and will be published on the thromde/ dzongkhag and MOWHS websites. GRM will also be displayed at notice boards in the PIU offices.

2. **First level of GRM.** Aggrieved persons may first approach the contractor's site representative/ project manager in case of complaints related to construction related nuisances. The complaint must be recorded in the site register and contractor should provide a resolution to the complaint within 2 days. In case, the complaint is not resolved at this level, the aggrieved persons can then file a complaint with the PIU office. Aggrieved persons are entitled to lodge complaints regarding any aspect of the land acquisition, entitlements, benefits or rates of payment as well as any project related social or environmental issues. Complaints can be made verbally or in written form. Complaints made to the PIU should be resolved within 3 days. All complaints must be recorded by the PIU, including actions taken to resolve the complaint. Complaints, their nature and resolution should be mentioned in the quarterly progress reports.

3. **2<sup>nd</sup> level of GRM:** At this level, the PIU Manager/Municipal level will coordinate with the Dzongkhag/ thromde municipal Committee which should be in place prior to project implementation. This committee will be comprised of : (i) Dzongda (district administrator) or thrompon (mayor) as Chairman; (ii) municipal engineer (PIU Project managers) as Member secretary; (iii) District engineers; (iii) district/ municipal planning officer; (iv) district/ municipal legal officer; (v) district/ municipal environmental officer; (vi) district/ municipal land record officer, (vii) town representatives (elected); and (viii) gender focal person of PIUs; The aggrieved person / or the representative who filed the complaint will be called to present his case and deliberation on the case will be done through proper hearing or mediation. It will be the responsibility of the dzongkhag/ thromde committee to resolve the issue within 15 days from the date the complaint is received. Minutes of meeting of the Dzongkhag/ thromde committee meeting will be kept and resolution provided will be recorded for purposes of project monitoring.

4. If the complaint is unresolved at this level, the PMU, PIU or the District Administrator will inform the aggrieved person accordingly and assist them in elevating the complaint to the PMU/ Central Grievance Committee.

5. **3<sup>rd</sup> level of GRM.** Grievances not redressed at the Dzongkhag/ thromde municipal committee within 15 days will be brought to the Central Grievance Redress Committee at MOWHS level. The Central Grievance Redress Committee will comprise of: (i) Secretary, MOWHS (Chairman); (ii) Director, DES (Member secretary); (iii) Project manager, PMU; (iv) Project coordinator, PMU; (v) Water and Sanitation Division chief; (vi) legal officer, MOWHS; (viii) environmental officer, MOWHS; (ix) gender officer (MOWHS); (x) representatives from local NGOs. It will be the responsibility of the Central committee to resolve the issue within 10 days from the date the complaint is received. In the event, the grievance is still not resolved; the matter may be elevated by the aggrieved person to an appropriate court of law. The court will have the final authority to approve or reject the case. Aggrieved persons may seek recourse through legal system at any stage of the GRM process.

Composition of Dzongkhag/ thromde  
Municipal Committee:

Chairman – Dzongda (district administrator)/  
thrompon (mayor)

Member – secretary- municipal engineer  
(PIU PMs)

Other members - district engineers, planning  
officer, legal officer, environmental officer,  
land record officer, town representative  
(elected), gender focal person.

Composition of central Grievance Redress  
Committee

Chairman – Secretary, MOWHS

Member secretary – Director, DES

Other members- PMU, PM, Project coordinator;  
WSD chief, legal officer, environmental officer;  
gender officer (MOWHS)

representatives from NGOs

### SAMPLE GRIEVANCE REDRESS FORM

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>	<input type="checkbox"/> Male <input type="checkbox"/> 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 Officials Reviewing Grievance)	
<b>Action Taken:</b>	
<b>Whether Action Taken Disclosed:</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Means of Disclosure:</b>	

## TEMPLATE FOR SEMI-ANNUAL ENVIRONMENTAL MONITORING REPORT

### Introduction

- Overall project description and objectives
- Environmental category as per ADB Safeguard Policy Statement, 2009
- Environmental category of each subproject as per national laws and regulations
- Project Safeguards Team

Name	Designation/Office	Email Address	Contact Number	Roles
1. PMU				
2. PIUs				
3. Consultants				

- Overall project and sub-project progress and status
- Description of subprojects (package-wise) and status of implementation (preliminary, detailed design, on-going construction, completed, and/or O&M stage)

Package Number	Components/List of Works	Contract Status (specify if under bidding or contract awarded)	Status of Implementation (Preliminary Design/Detailed Design/On-going Construction/Completed/O&M) <sup>a</sup>	If On-going Construction	
				%Physical Progress	Expected Completion Date

<sup>a</sup> If on-going construction, include %physical progress and expected date of completion.



**Compliance status with National/State/Local statutory environmental requirements<sup>a</sup>**

Package No.	Subproject Name	Statutory Environmental Requirements <sup>b</sup>	Status of Compliance <sup>c</sup>	Validity if obtained	Action Required	Specific Conditions that will require environmental monitoring as per Environment Clearance, Consent/Permit to Establish <sup>d</sup>

<sup>a</sup> All statutory clearance/s, no-objection certificates, permit/s, etc. should be obtained prior to award of contract/s. Attach as appendix all clearance obtained during the reporting period. If already reported, specify in the "remarks" column.

<sup>b</sup> Specify requirements of environmental clearances/permit or consent to establish/forest clearances, etc.

<sup>c</sup> Specify status of environmental clearances- obtained, submitted and awaiting approval, application not yet submitted.

<sup>d</sup> Example: Environmental Clearance requires ambient air quality monitoring, forest clearance or tree-cutting Permit requires two trees for every tree, etc.

**Compliance status with environmental loan covenants**

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

**Compliance status with the environmental management plan (refer to EMP tables in approved IEE/s)**

- Confirm if IEE/s require contractors to submit site-specific EMP/construction EMPs. If not, describe the methodology of monitoring each package under implementation.

**Package-wise IEE Documentation Status**

Package Number	Final IEE based on Detailed Design				Site-specific EMP (or Construction EMP) approved by Project Director? (Yes/No)	Remarks
	Not yet due (detailed design not yet completed)	Submitted to ADB (Provide Date of Submission)	Disclosed on project website (Provide Link)	Final IEE provided to Contractor/s (Yes/No)		

- For each package, provide name/s and contact details of contractor/s' nodal person/s for environmental safeguards.

**Package-wise Contractor/s' Nodal Persons for Environmental Safeguards**

Package Name	Contractor	Nodal Person	Email Address	Contact Number

- With reference to approved EMP/site-specific EMP/construction EMP, complete the table below

**Summary of Environmental Monitoring Activities (for the Reporting Period)<sup>a</sup>**

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

<sup>a</sup> Attach laboratory results and sampling map or locations.

**Overall Compliance with CEMP/ EMP**

No.	Subproject 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

**Approach and methodology for environmental monitoring of the project**

- Briefly describe the approach and methodology used for environmental monitoring of each sub-project.

**Monitoring of environmental IMPACTS on PROJECT SURROUNDINGS (ambient air, water quality and noise levels)**

- Discuss the general condition of surroundings at the project site, with consideration of the following, whichever are applicable:
  - Confirm if any dust was noted to escape the site boundaries and identify dust suppression techniques followed for site/s.
  - Identify if muddy water is escaping site boundaries or if muddy tracks are seen on adjacent roads.

- Identify type of erosion and sediment control measures installed on site/s, condition of erosion and sediment control measures including if these are intact following heavy rain;
  - Identify designated areas for concrete works, chemical storage, construction materials, and refueling. Attach photographs of each area in the Appendix.
  - Confirm spill kits on site and site procedure for handling emergencies.
  - Identify any chemical stored on site and provide information on storage condition. Attach photograph.
  - Describe management of stockpiles (construction materials, excavated soils, spoils, etc.). Provide photographs.
  - Describe management of solid and liquid wastes on-site (quantity generated, transport, storage and disposal). Provide photographs.
  - Provide information on barricades, signages, and on-site boards. Provide photographs in the Appendix.
  - Indicate if there are any activities being under taken out of working hours and how that is being managed.
- Briefly discuss the basis for environmental parameters monitoring.
  - Indicate type of environmental parameters to be monitored and identify the location.
  - Indicate the method of monitoring and equipment used.
  - 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

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

#### Water Quality Results

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

Site No.	Date of Sampling	Site Location	Parameters (Monitoring Results)					
			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

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

**Grievance Redress Mechanism**

- Provide information on establishment of grievance redress mechanism and capacity of grievance redress committee to address project-related issues/complaints. Include as appendix Notification of the GRM (town-wise if applicable).

**Complaints Received during the Reporting Period**

- Provide information on number, nature, and resolution of complaints received during reporting period. Attach records as per GRM in the approved IEE. Identify safeguards team member/s involved in the GRM process. Attach minutes of meetings (ensure English translation is provided).

**SUMMARY OF KEY ISSUES AND REMEDIAL ACTIONS**

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

**APPENDIXES**

- Photos
- Summary of consultations
- Copies of environmental clearances and permits
- Sample of environmental site inspection report
- all supporting documents including **signed** monthly environmental site inspection reports prepared by consultants and/or contractors
- Others

**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

☐

No

☐

Signature

**Sign off**

\_\_\_\_\_

## ENTITLEMENT MATRIX FOR THE PROJECT

	Type of Loss	Application	Definition of Entitled Person	Compensation and R&R Entitlement Policy <sup>a</sup>	Implementation Issues	Responsible Agency
1	Loss of private registered land	Homestead or mixed use land or vacant plot	All registered land owners (where acquisition is not through land pooling scheme), All non-agreeing and absentee land owners (where land is acquired through land pooling scheme)	<ol style="list-style-type: none"> <li>1. Substitute land where feasible or cash compensation at replacement cost as per the Land Act (2007);<sup>b</sup></li> <li>2. Resettlement allowance in cash equivalent to the difference between compensation determined as per the Land Act 2007 and prevailing replacement cost<sup>c</sup> of land in the same vicinity.</li> <li>3. In case of partial land acquisition, if remaining land parcel is less than 10 decimals, the remaining land parcel will also be acquired and compensation will be paid according to provisions of these entitlement matrix</li> <li>4. Compensation for trees based on timber value at market price, and compensation for perennial crops and fruit trees at annual net product market value multiplied by remaining productive years; Compensation value to be determined as per latest compensation rates (2017) approved by PAVA. (or latest PAVA revision) (refer to #5 of the Matrix), without depreciation, adjusted for inflation. Any difference with the market value of tree/crop loss will be paid as additional compensation amount.</li> <li>5. All fees, stamp duties, taxes, and other transaction and registration charges incurred in the relocation and rehabilitation process, are to be borne by the executing /implementing agencies as per local policies or</li> </ol>	<ul style="list-style-type: none"> <li>• If land-for-land is offered, (i) ownership will be in the name of original landowners, (ii) joint ownership in the name of husband and wife will be offered in case of non-female-headed households.</li> <li>• Payment of all fees, stamp duties, taxes, and other charges, as applicable under the relevant laws, incurred in the registration/transfer will be limited to those for land purchased within a year of compensation payment and for land of equivalent size.</li> <li>• Four months (120 days) advance notice to be given to minimize loss.</li> <li>• Work schedule will avoid harvest season</li> </ul>	Replacement cost will be confirmed by ADB in consultation with Dzongkhag/Thromde Land Acquisition Committee The Dzongkhag/Thromde administration/ PMU and the safeguards cell in the PMU will verify the affected households and determine additional assistance/allowance such as resettlement allowance to be provided to affected families.

	Type of Loss	Application	Definition of Entitled Person	Compensation and R&R Entitlement Policy <sup>a</sup>	Implementation Issues	Responsible Agency
				<p>provided as additional allowance added to the Resettlement Allowance (#1.2, above) to affected families.</p> <p>6. All affected families will receive compensation for: (i) damage to land/quality of land (if any) sustained by reason of severing land proposed for acquisition or adjoining lands from/to affected land; calculated from the date of preliminary notification till the date of final award; (ii) diminution of the profits of the land between the time of the publication of the Declaration for taking possession of land and the time of taking actual possession of the land; and (iii) Compensation incidental to such change if affected landowner is compelled to change his place of residence or business due to proposed land acquisition.</p> <p>7. One-time financial assistance of Nu 8,000 as transportation cost/shifting allowance to be provided to affected families that are displaced for shifting family building materials, cattle and other such belongings.</p>		
1-a	Loss of private land	Homestead or mixed use land or vacant plot	Tenants/ Leaseholders/ Sharecroppers (with or without written lease or tenancy agreement)	<ol style="list-style-type: none"> <li>1. Reimbursement of rental/lease deposit or unexpired lease;</li> <li>2. Compensation at replacement cost for any investment made to the land;</li> <li>3. One-time financial assistance of Nu 2,500 as transportation cost/shifting allowance for displaced families.</li> </ol>	<ul style="list-style-type: none"> <li>• Land owners will reimburse tenants and leaseholders land rental deposit or unexpired lease</li> <li>• Four months (120 days) advance notice</li> <li>• Work schedule will avoid harvest season.</li> </ul>	PIUs will confirm land rental and ensure tenants and leaseholders receive reimbursement for land rental deposit or unexpired lease, and report to PMU.

	Type of Loss	Application	Definition of Entitled Person	Compensation and R&R Entitlement Policy <sup>a</sup>	Implementation Issues	Responsible Agency
2	Loss of government land	Vacant plot, agricultural land, homestead land	Leaseholder/ legal user	<ol style="list-style-type: none"> <li>1. Reimbursement of rental/lease deposit or unexpired lease;</li> <li>2. Compensation at replacement cost for any investment made to the land;</li> <li>3. One-time financial assistance of Nu2,500 as transportation cost/shifting allowance for displaced families.</li> </ol>	<ul style="list-style-type: none"> <li>• Reimbursement to tenants and leaseholders land rental deposit or unexpired lease</li> <li>• Four months (120 days) advance notice will be given, to minimize impact.</li> <li>• Work schedule will avoid harvest season.</li> </ul>	PIUs will confirm land rental and ensure tenants and leaseholders receive reimbursement for land rental deposit or unexpired lease, and report to PMU. PMU will ensure interdepartmental coordination
3	Loss of structures and immovable assets	Residential and commercial structure and other assets	All legal titleholder/ owner of affected structures and immovable assets	<ol style="list-style-type: none"> <li>1. The replacement cost of the structure, will be provided, calculated as per the latest prevailing PAVA approved compensation rates (2017 or latest PAVA revision without depreciation and adjusted for inflation.</li> <li>2. Where the loss of structure is partial and the remaining structure is unviable, compensation will be based on the total structure and benefits will be given as mentioned in this section.</li> <li>3. Additional Resettlement allowance to cover for gap between compensation value determined as per BSR rates and actual prevailing replacement costs</li> <li>4. One-time financial assistance of Nu 2,500 as transportation/shifting allowance;</li> <li>5. Right to salvage material from the demolished structure at no cost;</li> <li>6. If relocation is required, rental assistance for at least 12 months or till alternative house is ready, whichever is earliest</li> </ol>		<p>ADB will confirm if the PAVA rates are sufficient as the replacement Cost. Dzongkhag/Thromde administration/ PMU will ensure notice to APs.</p> <p>PMU/PIU will verify the extent of impacts identified during census survey and, determine resettlement allowance and additional assistance (including rental assistance required for those affected by involuntary relocation. PMU will also verify vulnerable households.</p>



	Type of Loss	Application	Definition of Entitled Person	Compensation and R&R Entitlement Policy <sup>a</sup>	Implementation Issues	Responsible Agency
				<p>7. All fees, taxes and other registration charges incurred for the replacement structure shall be borne by executing/ implementing agencies as per local policies, and if not an equivalent value will be added to the compensation value determined.</p> <p>8. 120 days advance notice to remove their movable assets</p>		
3-a	Loss of structure and immovable assets	Residential and commercial structure and other assets	Tenants and leaseholders	<p>1. Rental assistance (determined on current rental amount) for 2 months.</p> <p>2. One-time financial assistance of Nu2,500 as transportation cost/shifting allowance.</p> <p>3. Any additional structures erected by tenants will also be compensated and deducted from owner's compensation amount;</p> <p>4. Any advance deposited by the tenant to the landlord will be deducted from land lord/owner's total compensation package on submission of documentary evidences; and</p> <p>5. Right to salvage material from demolished structure, erected by tenants.</p> <p>6. 60 days advance notice to remove their movable assets</p> <p>7. Additional compensation for vulnerable households (item # 6)</p>	<ul style="list-style-type: none"> <li>Structure owners will reimburse tenants and leaseholders rental deposit or unexpired lease.</li> </ul>	<p>Dzongkhag/Thromde administration/ PMU will ensure notice to APs.</p> <p>PMU/PMSC will verify the extent of impacts determine assistance (including rental values), verify vulnerable households.</p>
3-b	Loss of structures and immovable assets	Residential and commercial structure and other assets	Encroachers, squatters, and informal settlers	<p>1. Encroachers will be notified and given 2 months advance notice to remove their assets.</p> <p>2. Compensation for affected structures at replacement value calculated as per the latest prevailing compensation rates (2017) approved</p>	<ul style="list-style-type: none"> <li></li> </ul>	<p>ADB will confirm PAVA/ BSR rates are sufficient as the replacement cost.</p> <p>Dzongkhag/Thromde administration/ PMU</p>

	Type of Loss	Application	Definition of Entitled Person	Compensation and R&R Entitlement Policy <sup>a</sup>	Implementation Issues	Responsible Agency
				<p>by PAVA, (or latest PAVA revision) without depreciation and adjusted for inflation.</p> <p>3. Right to salvage material from the demolished structure at no cost.</p> <p>4. A lump sum shifting assistance of Nu 2,500 will be provided</p> <p>5. Additional compensation for vulnerable squatter households (item # 6)</p>		<p>will ensure notice to affected peoples.</p> <p>PMU/PIU will verify the extent of impacts, determine assistance, verify vulnerable households.</p>
4	Loss of livelihood	Loss of income from business/employment/daily wage	Owner/tenants/leaseholders/sharecroppers (with or without written tenancy or lease agreement)/wage earner, non-titleholder	<p>1. ERG for lost income (median) for 12 months per household</p> <p>2. Assistance in suitable skill development training or alternate livelihood, finding alternate jobs</p> <p>3. Provide at least four months advance notice</p>	Census survey will identify households whose livelihoods are affected, extent and type of loss. Census survey will also identify vulnerable households.	PMU/PIU will verify the extent of impacts/income loss and determine assistance, verify vulnerable households.
5a	Loss of trees/crops	Standing trees/crops	Legal titleholder, Leaseholders	<p>1. Affected person will be notified and given 60 days advance notice to cut/clear the affected trees and seasonal crops.</p> <p>2. Compensation for trees based on timber value at market price, and compensation for perennial crops and fruit trees at annual net product market value multiplied by remaining productive years; compensation for crops based on market price, and for timber and fruit trees and crops, labour costs and input costs; to be determined by PAVA. <sup>d</sup></p> <p>3. Gaps, if any between compensation determined as per PAVA rate and actual market rate will be covered</p>	<ul style="list-style-type: none"> <li>• Work schedules will avoid harvest season.</li> <li>• Valuation of trees has to be determined by the Sarpang dzongkhag in consultation with PAVA.</li> </ul>	Dzongkhag/Thromde administration/ PMU /PIUs will ensure provision of notice.

	Type of Loss	Application	Definition of Entitled Person	Compensation and R&R Entitlement Policy <sup>a</sup>	Implementation Issues	Responsible Agency
				through compensation added to resettlement allowance		
6	Impacts on vulnerable APs <sup>e</sup>	All permanent impacts	Vulnerable affected persons <sup>f</sup>	<ol style="list-style-type: none"> <li>1. Additional rehabilitation assistance of 3 months wages per vulnerable family will be paid. This will be over and above the other assistance given in this framework. Or alternatively Vulnerable households will be given benefits under provisions of rehabilitation programme (#172 of Land Rules, 2009)</li> <li>2. Vulnerable households will be given priority in employment in the project construction activities.</li> <li>3. Provision for skill training for displaced vulnerable persons</li> </ol>	<ul style="list-style-type: none"> <li>• If substitute land is offered, (i) ownership will be in the name of original landowners, or (ii) joint ownership in the name of husband and wife will be offered in case of non-female-headed households.</li> </ul>	<p>Vulnerable households will be identified during the census survey of affected households</p> <p>PMU/PIUs will verify the extent of impacts determine assistance, verify vulnerable households and coordinate with appropriate authorities to provide benefits under provisions of rehabilitation program</p>
7a	Temporary loss of land	Land temporarily required for project activities	Legal titleholders/ traditional land rights/ non-titleholders	<ol style="list-style-type: none"> <li>1. Restoration of land to its previous or better quality.</li> <li>2. In cases where there are temporary disruptions/restrictions to agricultural activities/cultivation, 30 days advance notice will be served to affected persons</li> <li>3. Compensation for damaged assets at replacement cost.<sup>g</sup></li> </ol>	<p>PIUs will identify and include details in the resettlement plan/s</p> <ul style="list-style-type: none"> <li>• Arrangement by the contractor on the activities to be taken up.</li> <li>• Impacts if any on the structures, assets and plantation due to the temporary occupation.</li> <li>• Extent of rehabilitation, restoration of the site.</li> <li>• In cases where project activities restrict APs to cultivate land for a season or more, the AP will be entitled for compensation commensurate with</li> </ul>	<p>The rental value and duration of lost income will be determined through survey and consultation with affected persons. A photograph of the status prior to occupation to be made by the PIU. PIU will ensure that the compensation is paid prior to handing over of site to the owner. The site will be taken up by the contractor after consent of PIU/PMU.</p>

	Type of Loss	Application	Definition of Entitled Person	Compensation and R&R Entitlement Policy <sup>a</sup>	Implementation Issues	Responsible Agency
					value of crop which s/he would have harvested otherwise	
7b	Temporary disturbances during construction	Noise, dust, access restrictions due to construction, loss of minor non-land assets like boundary walls, etc. due to construction work	Households that may face construction related nuisances	<ol style="list-style-type: none"> <li>1. Construction related nuisances such as noise dust and access restrictions will be mitigated through the contractor's EMP</li> <li>2. Any loss of non-land assets due to construction works will be reinstated by contractor as per provisions of the EMP.</li> </ol>	<ul style="list-style-type: none"> <li>• Close construction supervision will be required</li> <li>• Effective lower tiers of GRM will be required to manage such issues.</li> </ul>	PIU with support of PMSC will closely monitor the contractor and construction activities and ensure strict compliance with provisions of the EMP.
8	Temporary disruption of livelihood	Commercial and agricultural activities	Legal titleholders, tenants, leaseholders, employees, hawkers or vendors.	<ol style="list-style-type: none"> <li>1. 30 days advance notice regarding construction activities, including duration and type of disruption.</li> <li>2. Cash assistance based on the net income loss from the affected business or minimum wage (semi skilled or higher) for the loss of income/livelihood for the period of disruption, whichever is more.</li> </ol>	<ul style="list-style-type: none"> <li>• Census survey will identify households whose livelihoods are temporarily affected, extent and type of loss. Census survey will also identify vulnerable households.</li> <li>• PMU/PIU will ensure civil works will be phased to minimize disruption through construction scheduling in co-ordination with the contractors</li> </ul>	PMU/PIU will verify the extent of impacts determine assistance, verify vulnerable households.
9	Loss and temporary impacts on	Common resources	Communities, government agencies <sup>h</sup>	1. The contractor shall follow the provisions in this entitlement matrix for any impact on structure or land due to movement of machinery	PMU will ensure compensation and other entitlements are implemented in co-	PMU and Contractor.

	Type of Loss	Application	Definition of Entitled Person	Compensation and R&R Entitlement Policy <sup>a</sup>	Implementation Issues	Responsible Agency
	common resources			<p>during construction or establishment of construction plant. Contractor is obligated to pay for these losses under the provision of the environmental management plan.</p> <p>2. Compensation for trees and crops will be as per latest PAVA approved rates (2017 or latest PAVA revision) without depreciation, adjusted for inflation.</p> <p>3. Time bound restoration of land to its previous or better quality.</p> <p>4. The contractor will maintain access to businesses (e.g., planks, keeping traffic flow, pedestrian access, no full street closures, etc.).</p> <p>5. Replacement or restoration of the affected community facilities – including public water stand posts, temples, shrines, bus shelters, etc.</p> <p>6. Enhancement of community resources<sup>i</sup></p>	ordination with the contractors	
10	Any other loss not identified			<p>1. Any unanticipated impacts of the project will be documented and mitigated based on the spirit of the principles agreed upon in this Resettlement Framework and the Land Act (2007)</p> <p>2. Unanticipated involuntary impacts will be documented and mitigated based on the principles provided in the ADB involuntary resettlement Policy.</p>	PMU, PIUs and PMSC	PMU will ascertain the nature and extent of such loss. The safeguards cell will finalize the entitlements in line with the ADB Safeguard Policy Statement.

ADB = Asian Development Bank, APs = affected persons, BSR = Bhutan Schedule of Rates, EMP = environmental management plan, ERG = economic rehabilitation grant, GRM= grievance redress mechanism, PAVA= Property Assessment and Valuation Agency, PIUs = project implementation units, PMSC = project management and supervision consultants, PMU = project management unit, R&R = resettlement and rehabilitation.

- <sup>a</sup> Compensation/Assistance under the heads of Transportation costs and monthly subsistence allowance shall be payable to displaced families only once. For example, if an affected household loses land, shelter and commercial business in one lot, the family will get each of these allowances only once. Statutory compensation rates will be adjusted for inflation till the year of compensation payment.
- <sup>b</sup> The preferred compensation for displaced vulnerable households will be land for land.
- <sup>c</sup> Replacement cost of the land as determined by PAVA may not be reflective of prevailing and full replacement cost of that land and the same, if applicable, will require to be compensated by means of resettlement allowance. Replacement cost includes: (i) fair market value, (ii) transaction costs, (iii) interest accrued, (iv) transitional and restoration costs, and (v) other applicable payments, if any.
- <sup>d</sup> In case of crop/tree loss, the replacement cost will include the fair market value, inputs costs and labour costs.
- <sup>e</sup> Vulnerability benefits are incremental, i.e., in addition to other entitlements and benefits.
- <sup>f</sup> Vulnerable households in the context of the project comprise female-headed households, households with out of school/ working children, disabled person-headed household, elderly-headed household, landless household, household with no legal title/tenure security, below poverty line households. alue, transaction costs, interest accrued, transitional and restoration costs, and other applicable payments if any.
- <sup>g</sup> As per ADB SPS, replacement cost includes: (i) fair market value; (ii) transaction costs; (iii) interest accrued, and (iv) transitional and restoration costs.
- <sup>h</sup> For example, schools and health centers.
- <sup>i</sup> For example, provision of water connections, toilets and/or play areas with appropriate facilities.

## OUTLINE OF SOCIAL SAFEGUARDS REPORTS AND MONITORING TEMPLATES

### OUTLINE OF DUE DILIGENCE REPORT (DDR) INVOLUNTARY RESETTLEMENT IMPACTS

Following requirements of the ADB Safeguard Policy Statement (2009) and the *Operations Manual* section on safeguard policy (OM F1, 2013), ADB assumes the responsibility for conducting due diligence and for reviewing, monitoring, and supervising projects throughout the ADB's project cycle in conformity with the principles and requirements embodied in the SPS.

To ensure appropriate categorization of involuntary resettlement (IR) safeguards during project preparation a careful screening activities are recommended to be done by the project team (or consultants) and the result is reported to ADB. This report is important as the supporting document, as well as for the baseline information/data, for a project to be categorized as C ("no impacts") on involuntary resettlement and for projects involving facilities and/or business activities that already exist or are under construction before ADB's involvement. The comprehensiveness of the report is commensurate with the complexity of the proposed project activities. An IR due diligence report (DDR) may include the following elements:

#### A. Executive summary

This section provides a concise statement of project scope and activities, key findings and proposed safeguards categorization and summary recommended actions, if any.

#### B. Background of the Report and Project Description

This section provides a general description of the activity, including:

1. Background/context of the due diligence report which includes the information on the proposed project and its components,
2. Information on the scope of the due diligence activity and requirements

#### C. Legal and Policy Background

This section provides information on country regulations and laws related to land acquisition and involuntary resettlements relevant to the project activities. ADB SPS (2009) is also included as another policy reference of the assessment.

#### D. Methodology

This section describes the methodology used in conducting the due diligence activities for involuntary resettlement impacts. This includes schedule of the assessment activities, consultation meetings with projects affected communities and mobilized resources (institutions involved). The involuntary resettlement due diligence checklist as prepared by ADB can be used to conduct the assessment.

#### E. Findings

This section describes the results of the assessment. This includes:

1. Detail account of possible involuntary resettlement impacts due to the proposed project activities (each component/ sub project). The assessment of impacts should include permanent and temporary impacts for both land and non-land assets (i.e., immobile assets, crops/trees, income, access to land or resources, etc.).
2. A chronology of past land acquisition and resettlement activities, if any. This includes assessment of adequacy of the previous land acquisition and resettlement activity against ADB policy on involuntary resettlement and whether there are pending issues related to the past activities. For any negotiated land acquisition or land donation conducted in anticipation of ADB funding, third independent party validation report has to be prepared and attached to the DDR.
3. Other social issues observed during the field visits (i.e., opposition/resentment from the communities in the project sites, social conflicts, etc.) that could affect the implementation of the project.

## **F. Recommendations**

This section describes the summary findings of the assessment and recommendation for the appropriate involuntary resettlement categorization of the project. A time-bound action plan for preparing the required resettlement plan and/or corrective action plan (CAP), if any, maybe proposed.

### **Appendixes**

1. Completed involuntary resettlement due diligence checklist with signatures from the responsible agencies/institutions
2. Pictures and maps of the project sites
3. List of existing assets observed/recorded during the assessment
4. Copy of land/assets ownership records
5. Copy of minutes of meeting during consultations
6. Copy of independent third party validation report
7. Copy of the establishment of project GRC (if already established)



**OUTLINE OF A RESETTLEMENT PLAN**

This outline is part of the Safeguard Requirements 2. A resettlement plan is required for all projects with involuntary resettlement impacts. Its level of detail and comprehensiveness is commensurate with the significance of potential involuntary resettlement impacts and risks. The substantive aspects of the outline will guide the preparation of the resettlement plans, although not necessarily in the order shown.

**A. Executive Summary**

This section provides a concise statement of project scope, key survey findings, entitlements and recommended actions.

**B. Project Description**

This section provides a general description of the project, discusses project components that result in land acquisition, involuntary resettlement, or both and identify the project area. It also describes the alternatives considered to avoid or minimize resettlement. Include a table with quantified data and provide a rationale for the final decision.

**C. Scope of Land Acquisition and Resettlement**

This section:

- (i) discusses the project's potential impacts, and includes maps of the areas or zone of impact of project components or activities;
- (ii) describes the scope of land acquisition (provide maps) and explains why it is necessary for the main investment project;
- (iii) summarizes the key effects in terms of assets acquired and displaced persons; and
- (iv) provides details of any common property resources that will be acquired.

**D. Socioeconomic Information and Profile**

This section outlines the results of the social impact assessment, the census survey, and other studies, with information and/or data disaggregated by gender, vulnerability, and other social groupings, including:

- (i) define, identify, and enumerate the people and communities to be affected;
- (ii) describe the likely impacts of land and asset acquisition on the people and communities affected taking social, cultural, and economic parameters into account;
- (iii) discuss the project's impacts on the poor, indigenous and/or ethnic minorities, and other vulnerable groups; and
- (iv) identify gender and resettlement impacts, and the socioeconomic situation, impacts, needs, and priorities of women.

**E. Information Disclosure, Consultation, and Participation**

This section:

- (i) identifies project stakeholders, especially primary stakeholders;
- (ii) describes the consultation and participation mechanisms to be used during the different stages of the project cycle;

- (iii) describes the activities undertaken to disseminate project and resettlement information during project design and preparation for engaging stakeholders;
- (iv) summarizes the results of consultations with affected persons (including host communities), and discusses how concerns raised and recommendations made were addressed in the resettlement plan;
- (v) confirms disclosure of the draft resettlement plan to affected persons and includes arrangements to disclose any subsequent plans; and
- (vi) describes the planned information disclosure measures (including the type of information to be disseminated and the method of dissemination) and the process for consultation with affected persons during project implementation.

## **F. Grievance Redress Mechanisms**

This section describes mechanisms to receive and facilitate the resolution of affected persons' concerns and grievances. It explains how the procedures are accessible to affected persons and gender sensitive.

## **G. Legal Framework**

This section:

- (i) describes national and local laws and regulations that apply to the project and identify gaps between local laws and ADB's policy requirements; and discuss how any gaps will be addressed;
- (ii) describes the legal and policy commitments from the executing agency for all types of displaced persons;
- (iii) outlines the principles and methodologies used for determining valuations and compensation rates at replacement cost for assets, incomes, and livelihoods; and set out the compensation and assistance eligibility criteria and how and when compensation and assistance will be provided; and
- (iv) describes the land acquisition process and prepare a schedule for meeting key procedural requirements.

## **H. Entitlements, Assistance and Benefits**

This section:

- (i) defines displaced persons' entitlements and eligibility, and describes all resettlement assistance measures (includes an entitlement matrix);
- (ii) specifies all assistance to vulnerable groups, including women, and other special groups; and
- (iii) outlines opportunities for affected persons to derive appropriate development benefits from the project.

## **I. Relocation of Housing and Settlements**

This section:

- (i) describes options for relocating housing and other structures, including replacement housing, replacement cash compensation, and/or self-selection (ensure that gender concerns and support to vulnerable groups are identified);
- (ii) describes alternative relocation sites considered; community consultations conducted; and justification for selected sites, including details about location, environmental assessment of sites, and development needs;
- (iii) provides timetables for site preparation and transfer;

- (iv) describes the legal arrangements to regularize tenure and transfer titles to resettled persons;
- (v) outlines measures to assist displaced persons with their transfer and establishment at new sites;
- (vi) describes plans to provide civic infrastructure; and
- (vii) explains how integration with host populations will be carried out.

## **J. Income Restoration and Rehabilitation**

This section:

- (i) identifies livelihood risks and prepare disaggregated tables based on demographic data and livelihood sources;
- (ii) describes income restoration programs, including multiple options for restoring all types of livelihoods (examples include project benefit sharing, revenue sharing arrangements, joint stock for equity contributions such as land, discuss sustainability and safety nets);
- (iii) outlines measures to provide social safety net through social insurance and/or project special funds;
- (iv) describes special measures to support vulnerable groups;
- (v) explains gender considerations; and
- (vi) describes training programs.

## **K. Resettlement Budget and Financing Plan**

This section:

- (i) provides an itemized budget for all resettlement activities, including for the resettlement unit, staff training, monitoring and evaluation, and preparation of resettlement plans during loan implementation;
- (ii) describes the flow of funds (the annual resettlement budget should show the budget-scheduled expenditure for key items);
- (iii) includes a justification for all assumptions made in calculating compensation rates and other cost estimates (considering both physical and cost contingencies), plus replacement costs; and
- (iv) includes information about the source of funding for the resettlement plan budget.

## **L. Institutional Arrangements**

This section:

- (i) describes institutional arrangement responsibilities and mechanisms for carrying out the measures of the resettlement plan;
- (ii) includes institutional capacity building program, including technical assistance, if required;
- (iii) describes role of NGOs, if involved, and organizations of affected persons in resettlement planning and management; and
- (iv) describes how women's groups will be involved in resettlement planning and management.

**M. Implementation Schedule**

This section includes a detailed, time bound, implementation schedule for all key resettlement and rehabilitation activities. The implementation schedule should cover all aspects of resettlement activities synchronized with the project schedule of civil works construction, and provide land acquisition process and timeline.

**N. Monitoring and Reporting**

This section describes the mechanisms and benchmarks appropriate to the project for monitoring and evaluating the implementation of the resettlement plan. It specifies arrangements for participation of affected persons in the monitoring process. This section will also describe reporting procedures.

**OUTLINE OF SOCIAL SAFEGUARDS MONITORING REPORT  
DURING PROJECT IMPLEMENTATION PERIOD**

Following requirements of the ADB Safeguard Policy Statement (2009) and the *Operations Manual* section on safeguard policy (OM F1), borrowers/clients are required to establish and maintain procedures to monitor the status of implementation of safeguard plans and ensure progress is made toward the desired outcomes. For projects categorized as A or B in Involuntary Resettlement and/or Indigenous People, the Borrowers/clients are required to submit semi-annual monitoring reports for ADB review. The level of detail and comprehensiveness of a monitoring report is commensurate with the complexity and significance of social safeguards impacts (involuntary resettlement and indigenous people) and with the current status of project implementation phase.

This outline can be used for periodic monitoring report (semi-annual) and resettlement plan/IPP completion report to start the civil works in the impacted areas. A safeguard monitoring report may include the following elements:

**A. Executive Summary**

This section provides a concise statement of project scope and impacts, key findings and recommended actions.

**B. Background of the Report and Project Description**

This section provides a general description of the project, including:

- Background/context of the monitoring report which includes the information on the project, project components, safeguards categorizations and general scope of the social safeguards impacts;
- Information on the implementation progress of the project activities, scope of monitoring report and requirements, reporting period, including frequency of submission and changes in project scope and adjusted safeguard measures, if applicable; and
- Summary table of identified impacts and the mitigation actions.

**C. Scope of Impacts**

This section outlines the detail of:

- Scale and scopes of the project's safeguards impacts;
- Vulnerability status of the affected people/communities; and
- Entitlements matrix and other rehabilitation measures, as applicable, as described in the approved final resettlement plan(s)/IPP(s).

**D. Compensation and Rehabilitation<sup>1</sup>**

This section describes the process and progress of the implementation of the safeguards plan and other required activities as determined in the plan. This includes:

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<sup>1</sup> Depending on the status of the final detail design during the submission of the report this activity might not yet started. Provide the information on the expected date the activity to be conducted instead.

- Payment of the affected assets compensation, allowances, loss of incomes, etc. to the entitled persons;
- Provisions of other types of entitlement as described in the matrix and implementation of livelihood rehabilitation activities as determined in the plan; and
- Quantitative as well as qualitative results of the monitoring parameters, as agreed in the plan, should be provided.

#### **E. Public participation and consultation**

This section describes public participation and consultations activities during the project implementation as agreed in the plan. This includes final consultations with affected persons during resettlement plan finalization after the completion of detail design; the numbers of activities conducted; issues raised during consultations and responses provided by the project team, implementing NGOs, project supervision consultants, contractors, etc.

#### **F. Grievance Redress Mechanism**

This section described the implementation of project grievance redress mechanism (GRM) as design in the approved resettlement plan/IPP. This includes evaluations of its effectiveness, procedures, complaints receive, timeliness to resolve issues/complaints and resources provided to solve the complaints. Special attentions should be given if there are complaints received from the affected people or communities.

#### **G. Institutional Arrangement**

This section describes the actual implementation or any adjustment made to the institutional arrangement for managing the social safeguards issues in the projects. This includes the establishment of safeguards unit/team and appointment of staff in the executing agency/implementing agency; implementation of the GRM and its committee; supervision and coordination between institutions involved in the management and monitoring of safeguards issues, the roles of NGO and women's groups in the monitoring and implementation of the plan, if any.

#### **H. Monitoring Results—Findings**

This section describes the summary and key findings of the monitoring activities. The results are compared against previously established benchmarks and compliance status (e.g., adequacy of IR compensation rates and timeliness of payments, adequacy and timeliness of involuntary resettlement rehabilitation measures including serviced housing sites, house reconstruction, livelihood support measures, and training; budget for implementing EMP, resettlement plan, or IPP, timeliness and adequacy of capacity building, etc.). It also compared against the objectives of safeguards or desired outcomes documented (e.g., involuntary resettlement impacts avoided or minimized; livelihood restored or enhanced; indigenous people's identity, human right, livelihood systems and cultural uniqueness fully respected; indigenous peoples not suffer adverse impacts, environmental impacts avoided or minimized, etc.). For financial institution projects this includes the effectiveness of the Environmental and Social Management System managed by the

financial institution and its participating institutions.<sup>2</sup> If noncompliance or any major gaps identified, include the recommendation of corrective action plan.

## **I. Compliance Status**

This section will summarize the compliance status of the project activities with the loan covenants, ADB SPS (2009) on SR 2 and the approved final resettlement plan(s).

## **J. Follow up Actions, Recommendation and Disclosure**

This section describes recommendations and further actions or items to focus on for the remaining monitoring period. It also includes lesson learned for improvement for future safeguards monitoring activities. Disclosure dates of the monitoring report to the affected communities should also be included. A time-bound summary table for required actions should be included.

### **Appendix 1**

- (i) List of Affected Persons and Entitlements
- (ii) Summary of Resettlement Plan/IPP with entitlement matrix

### **Appendix 2**

- (i) Copies of Affected Person's certification of payment (signed by the affected persons)
- (ii) Summary of minutes of meetings during public consultations
- (iii) Summary of complaints received and solution status

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<sup>2</sup> Specific for the financial institution projects, external agency may be required to conduct an audit of the project Environmental and Social Management System.

## PROJECT CLIMATE RISK FINANCING CALCULATIONS

Project Subcomponent	Link to Climate Risks Identified in the Project Climate Risk Assessment and Management Reporting	ADB financing <sup>a</sup> (\$m)	Non-Qualifying Costs	Qualifying Costs
<b>Output 1: Urban infrastructure expanded and/or upgraded (civil works, consultancy services)</b>	The climate assessment for the project suggests that temperature increases would lead increased frequency and intensity of floods, and precipitation induced frequent landslides. This output will enhance climate-resilience capacity in project towns by reducing physical water losses from more than 50% to less than 15%. Suitable slope stabilization and pipe anchorage measures have been incorporated into the detailed designs, to increase resilience of water transmission pipes traversing through landslide prone slopes. Plinth level of facilities like water treatment plants will be raised as an adaptation mechanism to increased flooding risk. In addition, new metered connections will be provided to 100% households in the coverage area including for low income/ vulnerable households. This will reduce the vulnerability of the poor who have less adaptive capacity against climate hazards. Drainage channels will also be built under this output to support safe conveyance of increased storm water load. This is therefore a <b>qualifying cost</b> .	7.30	6.65	0.65
<b>Output 2: Sector and institutional capacity and service delivery strengthened</b>	The component supports the following water conservation strategies/ methods: (i) development of a staged water tariff guideline to enable O&M cost recovery and promote judicious use of water; (ii) engagement of a non-governmental organization to generate awareness on water conservation, hygiene education, and water tariff sensitization which will lead to increasing resilience on water shortage in the target towns. The output will further support the recruitment of an international storm water/ drainage consultant to finalize the detailed designs of the drainage components for enhanced climate resilience. This output will also strengthen the technical capacity of municipalities to maintain their water supply, sewerage and drainage systems. Therefore, proportionate cost under this output is a <b>qualifying cost</b> .	1.1	0.81	0.29
<b>Subtotal</b>	ADB Financing of Base Cost	8.4	7.46	0.94
	ADB financing of Contingencies	1.6	1.07	0.13
<b>TOTAL ADB Finaning</b>		<b>10.00<sup>b</sup></b>	<b>8.53</b>	<b>1.07</b>

ADB = Asian Development Bank.

<sup>a</sup> Only base costs have been considered in the calculation.<sup>b</sup> In this table, ADB financing of contingencies includes \$0.4 million for interest during construction which will be paid through the loan.



## GAP IMPLEMENTATION SEMI-ANNUAL PROGRESS UPDATE REPORT FORMAT

**Date Prepared:**

Project Title: Secondary Towns Urban Development Project

Country: Bhutan

Project No.:42229-016

Loan No.:

Type of Project: Urban Development

Approval and Timeline/Duration of the Project: August 2018–July 2023

Gender Category: Effective Gender Mainstreaming

Mission Leader: Shinjini Mehta

Name of Gender Specialist/ Gender Focal Point:

Semi-annual period Covered by Update:

Project Impact: balanced and sustainable development of human settlements in Samdrup Jongkhar, Sarpang, and Trashigang ensured.

Project Outcome: quality, efficiency, and sustainability of urban services improved.

Activities, Indicators, Baseline, Targets, Time Frame and Responsibility	Progress Update		Issues and Challenges
	Progress for the Reporting Period (MM/YYYY to MM/YYYY) (This should include information on progress for the current 6 month period-qualitative and quantitative updates (sex-disaggregated data))	Cumulative Progress (MM/YYYY to MM/YYYY) (This should include information on progress (qualitative and quantitative updates including sex-disaggregated data) from the start of the implementation of the GAP to the previous six months progress report.)	(Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc.)
<b>Output 1: Urban infrastructure expanded and/or upgraded</b>			
<u>Target:</u> 1. Raise awareness on the benefits and importance of the project to the target population, especially women <u>Indicators:</u> <ul style="list-style-type: none"> <li>Project awareness workshops conducted for residents in each project town () (Target: Total 600 residents, 30% women)</li> </ul> <u>2017 Baseline:</u> 258 people, 30% women <u>Responsibility:</u> PMU, PPTA team <u>Timeframe:</u>			

Activities, Indicators, Baseline, Targets, Time Frame and Responsibility	Progress Update		Issues and Challenges
	Progress for the Reporting Period (MM/YYYY to MM/YYYY) (This should include information on progress for the current 6 month period-qualitative and quantitative updates (sex-disaggregated data))	Cumulative Progress (MM/YYYY to MM/YYYY) (This should include information on progress (qualitative and quantitative updates including sex-disaggregated data) from the start of the implementation of the GAP to the previous six months progress report.)	(Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc.)
<p><u>Target:</u> 2. Orient program staff and contractor(s)'s teams on complying with core labor standards, including ensuring women's equitable access to construction jobs including equal pay for work of equal value of women and men</p> <p><u>Indicators:</u></p> <ul style="list-style-type: none"> <li>• Provisions for preferential employment of women laborers provided in all construction-related works (skilled/unskilled)</li> <li>• All bidding documents include relevant clauses on CLSs, such as equal pay for work of equal value of women and men</li> <li>• All contractors maintain labor registers showing name, sex, and wage of workers</li> <li>• One on-site orientation per works contract conducted for contractors' teams and PIU staff on key gender concepts and compliance with CLS</li> </ul> <p><u>2017 Baseline/s:</u> not applicable for all</p> <p><u>Responsibility:</u> PMU, contractors</p> <p><u>Timeframe:</u></p>			
<p><u>Target:</u> 3. Ensure access of vulnerable households and FHHs to water connection, (with water meters), and connection to drainage or sewerage</p> <p><u>Indicators:</u></p>			

Activities, Indicators, Baseline, Targets, Time Frame and Responsibility	Progress Update		Issues and Challenges
	Progress for the Reporting Period (MM/YYYY to MM/YYYY) (This should include information on progress for the current 6 month period-qualitative and quantitative updates (sex-disaggregated data))	Cumulative Progress (MM/YYYY to MM/YYYY) (This should include information on progress (qualitative and quantitative updates including sex-disaggregated data) from the start of the implementation of the GAP to the previous six months progress report.)	(Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc.)
<ul style="list-style-type: none"> <li>New connections to improved metered water supply provided (Target: 800 connections, 100% connections for FHHs and poor in coverage area)</li> <li>New connections to networked sewerage provided (Target: 250 additional connections, 100% connections for FHH and poor in coverage area)</li> </ul> <p><u>2017 Baseline:</u> total of 448 existing metered water connections in three towns;112 existing sewerage connections  <u>Responsibility:</u>PMU, PIUs  <u>Time frame:</u> By 2023 Q1</p>			
<p><u>Target:</u> 4. Establish sex-disaggregated data base of vulnerable households and FHHs and assess impact of the project's improved water supply services on female beneficiaries assessed</p> <p><u>Indicators:</u></p> <ul style="list-style-type: none"> <li>Master list of vulnerable households and FHHs, including socio-economic profile covering 100% of the population in the three towns prepared</li> <li>Baseline information on women's time poverty prevalence of water-borne disease and satisfaction with water quality collected. (Target: one assessment per town, 300 beneficiaries)</li> </ul>			

Activities, Indicators, Baseline, Targets, Time Frame and Responsibility	Progress Update		Issues and Challenges
	Progress for the Reporting Period (MM/YYYY to MM/YYYY) (This should include information on progress for the current 6 month period-qualitative and quantitative updates (sex-disaggregated data))	Cumulative Progress (MM/YYYY to MM/YYYY) (This should include information on progress (qualitative and quantitative updates including sex-disaggregated data) from the start of the implementation of the GAP to the previous six months progress report.)	(Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc.)
<ul style="list-style-type: none"> <li>Impact of project on women in terms of reduction in time poverty and water-borne diseases and satisfaction with water quality assessed (Target: one assessment per town, 300 beneficiaries, demonstrating increased satisfaction)</li> </ul> <p><u>2017 Baseline/s</u>: not applicable for all  <u>Responsibility</u>: NGO with support from PIUs  <u>Time Frame</u>:</p>			
<b>Output 2: Capacity of institutions and local communities strengthened</b>			
<p><u>Target</u>: 1. Establish institutional mechanisms for effective GAP monitoring and implementation</p> <p>Indicators:</p> <ul style="list-style-type: none"> <li>Project gender results monitored through the GEMS of the NCWC;<sup>a</sup></li> <li>One gender focal person in PMU and each PIU designated and trained in use of project GEMS (Target: four)</li> <li>Semi-annual gender monitoring reports with recommendations for successful GAP implementation prepared</li> <li>Minimum 20% women in project staffing</li> </ul> <p><u>2017 Baseline/s</u>: Not applicable; 0 . gender focal persons, not applicable, not applicable.  <u>Responsibility</u>: PMU, PIUs  <u>Time Frame</u>: Throughout project</p>			

	Progress Update		Issues and Challenges
	<b>Progress for the Reporting Period (MM/YYYY to MM/YYYY)</b> (This should include information on progress for the current 6 month period-qualitative and quantitative updates (sex-disaggregated data))	<b>Cumulative Progress (MM/YYYY to MM/YYYY)</b> (This should include information on progress (qualitative and quantitative updates including sex-disaggregated data) from the start of the implementation of the GAP to the previous six months progress report.)	(Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc.)
<b>Activities, Indicators, Baseline, Targets, Time Frame and Responsibility</b>  Target: 2. Conduct capacity building workshops on gender mainstreaming or municipal infrastructure and awareness seminars on human trafficking issues and mitigatory measures for key stakeholders (PMU, PIUs, border zone police, contractors) <u>Indicators:</u> <ul style="list-style-type: none"> <li>100% staff of PIUs and PMUs reported better appreciation of and skills in WASH practices, social participatory planning and implementation approaches and mitigation of key risks such as HIV/AIDS and human trafficking (Target: 15 staff with 20% women)</li> <li>Representatives of all contractors reported improved sensitivity to gender issues and gender mainstreaming in urban infrastructure development<sup>b</sup> (Target: eight people)</li> <li>Collaboration with local NGOs, border police and health department on HIV/AIDS awareness and prevention and HTAP established (Target: at least six meetings conducted in total including one joint stakeholder meeting per border town targeting total of 50 people)</li> </ul>			

Activities, Indicators, Baseline, Targets, Time Frame and Responsibility	Progress Update		Issues and Challenges
	Progress for the Reporting Period (MM/YYYY to MM/YYYY) (This should include information on progress for the current 6 month period-qualitative and quantitative updates (sex-disaggregated data))	Cumulative Progress (MM/YYYY to MM/YYYY) (This should include information on progress (qualitative and quantitative updates including sex-disaggregated data) from the start of the implementation of the GAP to the previous six months progress report.)	(Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc.)
<p>with at least 20% women's participation)</p> <ul style="list-style-type: none"> <li>PMU/PIUs and other municipal units reported improved knowledge and skills in O&amp;M and asset management of municipal infrastructure (Target: 50 participants; at least 25% women) </li></ul> <p><u>2017 baseline/s:</u> 0% PIU and PMU staff; not applicable, not applicable and 0 PMU and PIU staff</p> <p><u>Responsibility:</u> NGO with support from PIUs; individual consultant for training in O&amp;M</p> <p><u>Time Frame:</u></p>			
<p><u>Target:</u> 3. Awareness-raising on health, waste segregation and reduction, environment and gender issues conducted in local institutions</p> <p><u>Indicators:</u></p> <ul style="list-style-type: none"> <li>Awareness training activities conducted in local institutions like schools and health units (Target: one institution and one school per town targeting 200 people, with participation of 30% women and/or girls)</li> <li>Train the teachers sessions held in local school in each town (Target: 20 teachers trained, including 40% women teachers)</li> </ul> <p><u>2017 baseline/s:</u> 0</p> <p><u>Responsibility:</u> NGO</p> <p><u>Timeframe:</u></p>			

Activities, Indicators, Baseline, Targets, Time Frame and Responsibility	Progress Update		Issues and Challenges
	Progress for the Reporting Period (MM/YYYY to MM/YYYY) (This should include information on progress for the current 6 month period-qualitative and quantitative updates (sex-disaggregated data))	Cumulative Progress (MM/YYYY to MM/YYYY) (This should include information on progress (qualitative and quantitative updates including sex-disaggregated data) from the start of the implementation of the GAP to the previous six months progress report.)	(Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc.)
<p>Target: 4. Prepare IEC materials for awareness on gender and health related issues (e.g., prevention of HIV/AIDS, human trafficking associated with infrastructure development in border zone areas, behavior change for improved WASH practices)</p> <p>Indicators:</p> <ul style="list-style-type: none"> <li>• Illustrations and radio/TV material on behavior change for improved WASH practices, water conservation, waste reduction or segregation, gender, tariff increases, HIV/AIDS and HTAP awareness prepared -</li> <li>• IEC material disseminated through various media channels (e.g., radio, TV-BBS, MOWHS website, newspapers, facebook and wechat) (Target: for media outreach outputs refer TOR of GAP NGO)</li> <li>• HIV/AIDS awareness and HTAP signboards placed within border areas (Target: four signboards per border town)</li> <li>• Booklet with school competition drawings prepared</li> </ul> <p>2017 baseline/s: not applicable for all except number three where baseline is 0 signboards</p> <p>Responsibility: NGO</p> <p>Timeframe:</p>			

	Progress Update		Issues and Challenges
	Progress for the Reporting Period (MM/YYYY to MM/YYYY) (This should include information on progress for the current 6 month period-qualitative and quantitative updates (sex-disaggregated data))	Cumulative Progress (MM/YYYY to MM/YYYY) (This should include information on progress (qualitative and quantitative updates including sex-disaggregated data) from the start of the implementation of the GAP to the previous six months progress report.)	(Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc.)
<b>Activities, Indicators, Baseline, Targets, Time Frame and Responsibility</b> Target: 5. Conduct campaigns to sensitize communities on (a) gender and health issues; (b) WASH; (c) need for household connections; (d) proposed tariff structure and staged increases; (e) HIV or human trafficking prevention <u>Indicators:</u> <ul style="list-style-type: none"> <li>• Outreach meetings for tariff sensitization<sup>c</sup> (Target: at least one meeting per town prior targeting 1,800 people with 30% women)</li> <li>• HIV and HTAP outreach sessions conducted in border towns (Target: one per town targeting 400 people with 30% women)</li> <li>• Outreach sessions on solid waste segregation and reduction, water conservation and WASH conducted (Target: 3500 beneficiaries with 40% women's representation)</li> <li>• WASH-themed drawing competitions held in three local schools- one per town (Target: 150 students with at least 50% girls)</li> </ul> 2017 baseline/s: 0 outreach meetings on tariff sensitization, not applicable, 0 outreach sessions, not applicable <u>Responsibility:</u> NGO with support from PIUs <u>Time Frame:</u>			



AIDS = acquired immune deficiency syndrome; BBS = Bhutan broadcasting service; CBO= community based organization; CLS = core labor standards; IEC = information, education and communication; FHHs = female-headed households; GEMS = gender equality monitoring system; HIV = human immunodeficiency virus; HTAP = human trafficking awareness and prevention; MOWHS = Ministry of Works and Human Settlements; NCWC = National Commission for Women and Children; NGO = nongovernment organization; O&M = operation and maintenance; PIU = project implementation unit; PMU = project management unit; PMSC = project management and supervision consultant, WASH = water, sanitation and hygiene, TOR = terms of reference.

<sup>a</sup> NCWC and MOWHS will work jointly to monitor gender equality results and ensure timely submission of GAP reports.

<sup>b</sup> To include topics such as CLS, conducive environment for participation of women in construction activities, zero tolerance to child labor, mitigation measures for HIV/AIDs transmission and human trafficking, encouraging behavior change for improved WASH practices at construction sites and basic OH&S orientation.

<sup>c</sup> GAP implementing NGO will liaise with thromde dzongkhag administrations regarding the timing and willingness for tariff increases in each town.