

# Project Administration Manual

Project Number: 42184-024  
April 2016

Mongolia: Additional Financing for Southeast Gobi  
Urban and Border Town Development Project

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

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

The Ministry of Construction and Urban Development (MCUD) and the *aimag* (province) governments of Arkhangai, Dornogovi, Umnugovi and Uvurkhangai are wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by MCUD and the *aimag* (province) governments of Arkhangai, Dornogovi, Umnugovi and Uvurkhangai of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

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

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

## Abbreviations

ADB	=	Asian Development Bank
DMF	=	design and monitoring framework
EIA	=	environmental impact assessment
EMP	=	environmental management plan
GDP	=	gross domestic product
IEE	=	initial environmental examination
MOF	=	Ministry of Finance
MCUD	=	Ministry of Construction and Urban Development
NCB	=	national competitive bidding
PMU	=	project management unit
PPMS	=	Project Performance Management System
PUSO	=	public utility service organization
QBS	=	quality-based selection
QCBS	=	quality- and cost-based selection
RRP	=	report and recommendation of the President to the Board
SOE	=	statement of expenditure
SCADA	=	supervisory control and data acquisition
SPS	=	Safeguard Policy Statement
TOR	=	terms of reference
WWTP	=	wastewater treatment plant

## I. PROJECT DESCRIPTION

1. **Project rationale, location, and beneficiaries.** On 19 April 2010, the Asian Development Bank (ADB) approved a grant of \$15 million from its Asian Development Fund for the Southeast Gobi Urban and Border Town Development Project, to support the provision of infrastructure and service improvement in urban areas in Southeast Gobi.<sup>1</sup> At the time, the *aimags* of Dornogovi and Umnugovi were experiencing a rapid increase in economic activity from the expansion of mining operations and the strengthening of trade corridors with the People's Republic of China. This resulted in growth of urban populations, but the *aimag centers*<sup>2</sup> and key *soum centers* lacked consummate urban infrastructure and services.<sup>3</sup> The current project's anticipated impact is enhanced economic development and livability in the *aimag centers* and mining and border towns in Southeast Gobi. The expected outcome is improved urban development and governance, and expanded access to sustainable infrastructure and public utility services in urban places in Southeast Gobi.<sup>4</sup> Key outputs of the current project include urban roads, water supply networks, wastewater and district heating, solid waste collection and disposal systems, and urban service delivery reforms.

2. **Performance of the current project.**<sup>5</sup> The current project is performing well<sup>6</sup> and is rated on track.

- (i) **Output delivery.** The current project has made significant progress toward achieving the project outcome and has largely accomplished outputs A and B by December 2015.<sup>7</sup> Against the approved outcome, the current project has (a) significantly improved access to water supply, sewerage, solid waste management, and heating coverage in planned (non-*ger*) areas in the project *soums*; (b) ensured that almost 95% of *ger* area dwellers in the project *soums* have access to potable water within 300 meters of their dwellings; (c) reduced water collection time for women and children; and (d) established and operationalized new water supply sewerage and heating networks. Against output A, standard lease agreements now form the basis of the service agreements between the local governments and public utility service organizations (PUSO). General plans for Gurvantes, Khanbogd, and Tsogttsetsii *soums* of Umnugovi *aimag* and Sainshand *soum* of Dornogovi *aimag* were prepared, and approved by *aimag khurals* (citizens' representative committees) and the relevant state expertise agency.<sup>8</sup> Capacity-building seminars and training on institutional urban planning and implementation, and on land acquisition and resettlement were held for over 250 *aimag* officials. Against output B, the current project has financed new water supply, sewerage, solid waste management, and

<sup>1</sup> ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Grant to Mongolia for the Southeast Gobi Urban and Border Town Development Project*. Manila.

<sup>2</sup> Dalanzadgad in Umnugovi and Sainshand in Dornogovi.

<sup>3</sup> A *soum* is an administrative unit immediately below an *aimag*. Each *aimag* has a number of *soums*, each centered round a *soum center*—comprising several administrative buildings and a small population. Less than 30% of the urban population had adequate water service, and only 17% had access to adequate sanitation services.

<sup>4</sup> The grant closing date is 31 May 2016.

<sup>5</sup> For clarity purposes, the original project will be referred as “the current project” and the additional financing as “the project”.

<sup>6</sup> Summary of Project Performance (accessible from the list of linked documents in Appendix 2 of the main text).

<sup>7</sup> See the revised design and monitoring framework.

<sup>8</sup> General plans for Khanbogd, Tsogttsetsii, and Gurvantes *soums* of Umnugovi *aimag* were approved by an *aimag khural* on 27 March 2014 and by a state expertise agency on 6 August 2015. The general plan for the Sainshand *soum* of Dornogovi *aimag* and the “New Sainshand” residential district partial general plan were approved by an *aimag khural* on 4 December 2013 and by a state expertise agency on 24 June 2015.

heating system improvements in project urban centers. All assets created under part B of the current project are completed and operational except for the Zamiin–Uud heating plant, which is awaiting the completion of associated works before being operational.

- (ii) **Implementation progress.** Implementation progress is satisfactory. The current project has been implemented on time, and as of the end of the third quarter of 2015 (with 87% of project time elapsed), the physical progress is at 93.5% and the grant disbursement is at 93%.
- (iii) **Safeguard compliance.** Safeguard requirements have been met satisfactorily. Environmental and social safeguard screening procedures are well established under the current project and applied to every subproject. The environmental management plan was executed according to project safeguards requirements.
- (iv) **Management of risks.** The following risks were identified: (a) poor capital investment and budget planning; (b) underdeveloped institutional frameworks and poor capacity; (c) lack of monitoring and evaluation; (d) poor procurement integrity; and (e) weak national contractors. Project management and implementation support provided by the project management unit (PMU) and project implementation units managed most of the risks successfully by (a) building the investment planning capacity of the local government and improving service delivery and operation; (b) supporting institutional change on measuring and improving service delivery performance; (c) adopting a modality for procurement of priority infrastructure improvements to attract better-qualified national contractors; and (d) combining individual small civil works activities into larger contract packages to generate economies of scale.

3. **Additional financing eligibility criteria met.** ADB's due diligence confirmed that the additional financing meets the eligibility criteria. The additional financing is in line with the Government of Mongolia's action program for 2012–2016 and the high priority given to the development of infrastructure and services in *aimag centers*.<sup>9</sup> The project is included in ADB's country operations business plan, 2015 for Mongolia and is aligned with the interim country partnership program, 2014–2016.<sup>10</sup> With its objective to contribute to inclusive economic and environmentally sustainable growth, the project is also aligned with ADB's Midterm Review of Strategy 2020, and follows ADB's urban and water operational plans.<sup>11</sup>

4. **Additional financing priority met.** The additional financing has a high degree of readiness since detailed designs were already prepared and due diligence carried out, and feasibility is established. The PMU's capacity for project management, implementation support, and due diligence, including safeguards, built during the current project, adds to the project readiness. The subprojects under the additional financing build on the urban infrastructure and service improvements carried out in Dalanzadgad and Sainshand under the current project.

5. **Changes in project scope.** The additional financing will expand the scope of the current project by (i) adding the construction of new wastewater and treatment plants (WWTP) in the current project aimag centers of Dalanzadgad and Sainshand; (ii) extending the

<sup>9</sup> Government of Mongolia. 2012. *Action Program of the Reform Government through the Years 2012–2016*. Ulaanbaatar (the document is in Mongolian and has no official English translation).

<sup>10</sup> ADB. 2015. *Country Operations Business Plan: Mongolia, 2015*. Manila; and ADB. 2014. *Interim Country Partnership Strategy: Mongolia, 2014–2016*. Manila.

<sup>11</sup> ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific*. Manila; ADB. 2013. *Urban Operational Plan, 2012–2020*. Manila; and ADB. 2011. *Water Operational Plan, 2011–2020*. Manila.

geographical scope of the project by including the construction of new WWTPs in the additional aimag centers of Avairkheer and Tsetserleg; and (iii) building on the institutional reform and capacity building already carried out in Dalanzadgad and Sainshand, and extending this to Avairkheer and Tsetserleg, with a particular focus on wastewater tariff reform and on decommissioning existing WWTPs. The focus of the project outcome extends to achieving government standards for wastewater discharges, reusing sewage effluent, and improving local environmental quality. The project will contribute to a more balanced national urban system and strengthened urban–rural relationships by contributing to the development of second-tier cities in the country. It will also improve environmental conditions and reduce environmental pollution in and around the project cities. The project will support project management, capacity development, and training.

6. The project design incorporates lessons from the current project when it comes to the detailed designs<sup>12</sup> and location of the WWTPs, and the capacity building needs of the PUSOs. Lessons will be drawn from an ongoing ADB wastewater project in Darkhan,<sup>13</sup> which introduces the same treatment technology and thus saves time on preconstruction activities and increases the reliability of cost estimates. In addition, the institutional support and capacity-building subproject focuses on using national consultants to help the PUSOs incorporate organizational and management reforms already set out in guidelines and manuals prepared under the current project and through prior urban development projects.

7. The proposed extension project targets environmentally sustainable urban development and improved living standards in the *soums* (districts) of Arvaikheer, Dalanzadgad, Sainshand and Tsetserleg Mongolia. The project will contribute to a more balanced national urban system and strengthened urban-rural relationships through contribution to the development of a second-tier cities in the country. It will also improve environmental conditions and reduce environmental pollution in and around the project cities. The project will support improvement of the cities' wastewater management through construction of new WWTPs, and improvements to some pump stations. The project will support project management, capacity development and training. An attached intervention will implement innovative sludge management solutions for WWTP and *ger* areas of project *soums* will be financed on a grant basis by the Sanitation Financing Partnership Trust Fund<sup>14</sup> and administered by ADB.<sup>15</sup>

8. **Context.** In 2015, urbanization in Mongolia reached an estimated 72% (2.19 million out of a total population of 3.05 million).<sup>16</sup> The urban economy grew by an estimated annual average growth rate of over 10% during 2010–2014, and now accounts for 68% of total gross domestic product (GDP). However, the urban sector is dominated by the capital city, Ulaanbaatar, which contains almost half the national population, over two-thirds of the urban population, and accounts for 64% of GDP. The project *aimags*, with an aggregate urban population of about 95,000 represent examples of rapidly growing second tier cities and together make up some 5% of national urban population. Of the project *aimags*, two (Umnugovi and Dornogovi) have shown above average increases in population and share of GDP, while in

<sup>12</sup> The project is based on detailed designs already completed for the WWTPs.

<sup>13</sup> ADB. 2014. *Report and Recommendation of the President to the Board of Directors: Proposed Loans and Technical Assistance Grant to Mongolia for the Darkhan Wastewater Management Project*. Manila.

<sup>14</sup> Sanitation Financing Partnership Trust Fund under the Water Financing Partnership Facility (WFPF) is financed by Bill and Melinda Gates Foundation.

<sup>15</sup> ADB. 2016. *Report and Recommendation of the President to the Board of Directors: Proposed Loan for Additional Financing and Administration of Technical Assistant Grant for Mongolia: Southeast Gobi Urban and Border Town Development Project*. Manila.

<sup>16</sup> Mongolia National Urban Assessment, ADB, Ulaanbaatar, October 2015.

the remaining two (Arkhangai and Uvurkhangai) population and GDP have shown growth rates at or above the national average outside Ulaanbaatar.<sup>17</sup>

9. The project cities comprise two distinct patterns of residential districts, each of which is highly correlated with the degree and incidence of both income and quality-of-life poverty. The first comprises planned areas based on Soviet-style urban design, encompassing medium-density, and multi-family apartment housing surrounding public open space. The second comprises low-density *ger* areas—informal settlements characterized by long strips of large (usually 700 square meters) *khashaas* (unserved or underserved plots) accessed along wide dirt roads. Each *khashaa* may contain a number of structures, often *gers*, and in more established *ger* areas, also often wooden houses, masonry, or concrete structures. Most *ger* areas are served by water kiosks, supplied either from water mains or by water trucks, and sometimes by local wells. Sanitation in *ger* areas is typically in the form of on-plot pit latrines, causing soil and groundwater pollution. Mostly, wastewater is not collected from *ger* areas as pipe network expansions are costly in low-density areas. In general, the lack of services leads to harsh and unsanitary living conditions in *ger* areas.

10. **Current wastewater management in the project *aimag* centers.** All project cities have a sewerage network which serves the core area. These are separate sewer systems, with sanitary sewage and surface water being served by independent networks. The sewers are generally between 150 and 350 millimeters (mm) in diameter, of varying materials and constructed over the past 30 years. Most of the materials used are concrete and polyvinyl chloride (pvc). In view of their relatively young age, the sewer systems are said by the PUSO<sup>18</sup> to be in generally good condition, and not in need of replacement. Furthermore, with the relatively low sewage flow rates both now and in the short- to medium-term, there is no need for replacements or capacity augmentation to accommodate increases in flow rates.

11. All the project *aimags* have existing WWTPs which employ waste stabilization (oxidation) ponds as the main biological treatment method. All plants include anaerobic units as a primary mode of treatment, and include facultative and maturation units in series to improve treatment efficiency. The pond systems are preceded in some cases (Avairkheer, Dalanzadgad and Sainshand) by preliminary (screening and grit removal) and primary (sedimentation) treatment processes. However, in these cases, the preliminary treatment units are no longer fully operational. In all cases the treatment systems: (i) are generally in a poor state of repair, (ii) represent a technology choice that is not suitable for Mongolian climatic conditions, and (iii) are not providing a consistent level of treatment which satisfies Mongolian wastewater discharge standards. In addition, there is now strong growth in these *aimag* centers, with Government supporting an aggressive program of apartment construction.<sup>19</sup> This will lead to significant increases in wastewater flows over the forthcoming decade as new apartment block are occupied, exceeding the capacity of most of the existing treatment plants.

12. The project will improve the wastewater treatment systems in all project *aimags* and ensure continuous treatment throughout implementation. The project will directly benefit more than 25,000 residents (25% of the urban population in the project *soums*) and indirectly, more than 100,000 residents. Once in operation, it is anticipated that by 2030, the expanded treatment plants will be able to treat the wastewater from a total of 80,000 inhabitants (60% of *soums* population), and *aimag* commercial, institutional and industrial undertakings. The project

<sup>17</sup> Ibid.

<sup>18</sup> Agencies responsible for management and operation of water and wastewater services on behalf of the *aimag* governments.

<sup>19</sup> Through the Government's "100,000 houses" program.

will ensure that sewage effluents in all project *aimags* consistently achieve Government standards for discharge to the natural environment. The project will also support overall improvement of the city's wastewater management system through institutional development, training, project management assistance, and policy dialogue. The proposed project was requested by the Government of Mongolia for ADB consideration.<sup>20</sup>

13. **Strategic fit and innovation features.** The project is included in ADB's country operations business plan 2015 for Mongolia and it is aligned with the interim country partnership program, 2014–2016 for Mongolia.<sup>21</sup> With its objective to contribute to inclusive economic and environmentally sustainable growth, the project is aligned with ADB's Strategy 2020 and Midterm Review of Strategy 2020, and follows ADB's Urban and Water Operational plans. The proposed project is aligned with the Government Action Plan, 2012–2016, including its objectives of improving centralized wastewater systems in *aimag* centers, and enforcing the Law on Water Supply and Sewer Use. Lessons learned from previous urban and water sector projects in Mongolia include wastewater treatment technology selection after thorough screening of recently tested projects and proposals, and procurement management and choice of plant (design, supply, and install modality for the WWTP to ensure accountability and mitigate risks). The project supports the sustainability of and complements previous ADB assistance to the country.<sup>22</sup> To construct and operate new WWTP's in four *aimag* centers will provide demonstration benefits as a model for other *aimag* centers in the country with comparable conditions.

14. **Project Impact and Outcome.** The project impact will be enhanced economic development and livability in project *aimag centers* and border towns in Southeast Gobi. The project outcome will be improved urban development and governance, and expanded access to sustainable infrastructure and public utility services in urban places in Southeast Gobi.

The project will have two outputs:

- (i) **Output A: Wastewater collection and treatment infrastructure constructed and operationalized.** The project will establish modern wastewater treatment facilities to replace inadequate waste stabilization pond systems. This will be achieved by building new, effective, and energy-efficient treatment processes with integrated fixed-film activated sludge (IFAS) technology. This system is suitable for the cold climate in the project *aimag centers*, and produces an effluent that meets national and international effluent standards. The operating capacity of the plants will be 3,000 cubic meters per

<sup>20</sup> The Ministry of Finance submitted a letter (Ref: 10-1/1566) on proposed project pipeline in 2015 (including Southeast Gobi Urban and Border Town Development Project–Additional Financing) signed by Minister J. Erdenebat on 25 March 2015.

<sup>21</sup> ADB. 2015. *Country Operations Business Plan: Mongolia, 2015*. Manila; ADB. 2014. *Interim Country Partnership Strategy: Mongolia, 2014–2016*. Manila.

<sup>22</sup> ADB assistance to *aimag* centers include: Loan 1847-MON: Housing Finance (Sector) Project (completed), Loan 1907-MON: Integrated Development of Basic Urban Services in Provincial Towns Project (completed), Grant 9015-MON: Improving the Living Environment of the Poor in Ger Areas of Mongolia's Cities (completed), Grant 0204-MON: Southeast Gobi Urban and Border Town Development Project (the current project), and Loan 2301-MON: Urban Development Sector Project (completed). ADB assistance to Mongolia include: Loan 1560-MON: Provincial Towns Basic Urban Services (completed), and MFF 0078-MON: Ulaanbaatar Urban Services and Ger Areas Development Investment Program (approved December 2013), Loan 3244:MON Darkhan Wastewater Management Project (approved 2014).

day (m<sup>3</sup>/day) in Arvaikheer, Dalanzadgad, and Tsetserleg; and 4,200 m<sup>3</sup>/day in Sainshand.<sup>23</sup>

(ii) **Output B: Strategic planning, management, and cost recovery for wastewater management strengthened.** The project will (i) provide expert support for project management, institutional enhancement, and capacity development in utility management, operation, service provision, emergency preparedness and response, and construction supervision; and (ii) strengthen the capacity of the PMU and PUSOs. It will include policy dialogue on wastewater tariff reform and on the decommissioning of the existing WWTPs with the PUSOs and *aimag* governments. It will support public awareness campaigns on environmental management and sanitation, institutional development of utility service provision, and operation improvements.

## II. IMPLEMENTATION PLANS

### A. Project Readiness Activities

Indicative Activities	2015		2016							Responsibility
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	
DEIA approval										MCUD, MEGDT
Technical Discussions										MOF, MCUD, <i>aimags</i> , ADB
Loan Negotiations approval										MOF, MCUD
Loan Negotiations										MOF, MCUD, <i>aimags</i> , ADB
ADB Board approval										ADB
Loan signing										MOF, ADB
Parliament Ratification of Loan Agreement										Government, Parliament
Government legal opinion on loan and project agreements										Government
Loan effectiveness										ADB
Preparation for Loan implementation consultant firm recruitment										MCUD, ADB
Imprest account opening										MOF, MCUD
Signing of subsidiary loan agreements										Government, <i>aimags</i>

ADB = Asian Development Bank, DEIA = Detailed Environmental Impact Assessment, MEGDT = Ministry of Environment Green Development and Tourism, MOF = Ministry of Finance, MOJ = Ministry of Justice, MCUD = Ministry of Construction and Urban Development, PMU = Project Management Unit.

Notes:

1. The project readiness covers activities from approval of detailed design by government at the project preparation to the loan effectiveness.
2. Board approval, loan signing, legal opinion, loan effectiveness dates to be finalized.

<sup>23</sup> This is the capacity that will be fully utilized in the design year of 2030. The existing and future flows include all commercial establishments, businesses and institutions within the *aimag centers*. Many *ger* dwellers not connected to the central network use facilities of friends or family members within the connected areas for bathing.

## B. Overall Project Implementation Plan

Indicative Activities	2016 (Qtr)				2017 (Qtr)				2018 (Qtr)				2019 (Qtr)			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>DMF</b>																
<b>Output 1</b>																
Activity 1.1 Prepare tender documentation, conduct tenders and issue supply and install contracts.			■	■	■											
Activity 1.2 Order equipment, update and implement LARP, construct and install new equipment, commission WWTPs. (2017–2018).						■	■	■	■	■	■					
Activity 1.3 Start operating and monitoring of WWTPs (2018-2019).													■	■	■	■
<b>Output 2</b>																
Activity 2.1 Recruit additional staff to the existing PMU, establish staff local support units in PUSOs and implement arrangements.			■													
Activity 2.2 Recruit consultants.			■													
Activity 2.3 Project Management and implementation support.			■	■	■	■	■	■	■	■	■	■	■	■		
Activity 2.4 Institutional development.				■	■	■	■	■	■	■	■	■	■	■		
Activity 2.5 Provide staff training.					■	■	■	■	■	■	■	■	■	■		
Activity 2.6 Policy dialogue and public awareness campaigns.			■	■	■	■	■	■	■	■	■	■	■	■		
Activity 2.7 Develop emergency response plans										■	■	■	■	■	■	■
Activity 2.8 Implement and monitor EMP, LARP, SAP				■	■	■	■	■	■	■	■	■	■	■	■	■
Annual/Midterm review.						■						■				
Borrower's Project Completion Report.																■

EMP = environmental management plan, LARP = land acquisition and resettlement plan, PMU = project management unit, PUSO = public utility service organization, SAP = social action plan, WWTP = wastewater treatment plant.

### III. PROJECT MANAGEMENT ARRANGEMENTS

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

<b>Organizations</b>	<b>Management Roles and Responsibilities</b>
Asian Development Bank (ADB)	Oversees project implementation, including compliance by executing and implementing agencies of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures
Ministry of Finance (MOF)	Borrower's representative Negotiates loan and project agreements Ensures timely provision of project funding Reviews and approves withdrawal applications Establishes and provides oversight of imprest accounts in US\$ and local currency in commercial bank acceptable to ADB Ensures annual audit of the project accounts
Existing Project Steering Committee (under MCUD)	Chaired by the State Secretary, MCUD Comprises representatives of MOF, MEGDT, MCUD, local governments, technical experts and other agencies Provide strategic guidance and technical advice Meet at least once every 3 months until project completion
Executing Agency Ministry of Construction and Urban Development (MCUD)	Responsible for project oversight, coordination with implementing agency, liaison with ADB, financial management and administration Support project steering committee and technical working group Provide strategic guidance and technical advice to project management unit (PMU) Submits progress and safeguards monitoring reports prepared by PMU to steering committee for decision making and to ADB Accountable, responsible for proper use of imprest accounts' funds Responsible for procurement of national competitive bidding (NCB) and shopping contracts, consulting services and PMU experts recruitment, disbursement coordination, withdrawal applications, monitors budget allocations, counterpart funding Ensures compliance with project covenants Holds quarterly tripartite meetings with the PMU and project <i>aimags</i>
Implementing Agencies Governments of Project <i>aimags</i>	Responsible for project implementation, including administration, technical matters, monitoring and evaluation, safeguard compliance, and emergency response with assistance from consultants
Existing Project Management Unit (PMU under MCUD)	Responsible for all management, communication and coordination work during project preparation and implementation periods Assists MCUD in procurement of works and equipment and consulting services, prepares procurement documents for MCUD Assists the MCUD with management of engineering design, works, goods supply, and consulting services contracts Establishes and maintains project performance management system with support by the consultants

Organizations	Management Roles and Responsibilities
Project Support Staff (Assigned from PUSOs)	<p>Updates and submits final land acquisition and resettlement plan (LARP) and environmental management plan (EMP) for ADB approval prior to award of contracts and implements all required measures with the support of consultants</p> <p>Secures technical expertise for works prior to bidding and ensures monitoring and quality assurance during construction and installation</p> <p>Coordinate with PUSOs to ensure quality assurance of civil works and equipment installation</p> <p>Ensures safeguards monitoring and grievance redress mechanism</p> <p>Coordinates disbursements with ADB, prepares disbursement and replenishment withdrawal applications for endorsement by MCUD and MOF</p> <p>Submits progress and audit reports to ADB and the MCUD on time</p> <p>Maintains project imprest accounts</p> <p>Responsible for project implementation monitoring (with assistance of consultants)</p> <p>Assists PMU and MCUD in procurement of works and equipment for NCB and for shopping contract packages</p> <p>Assists PMU in updating and submission of final LARP (if any) and EMP for ADB approval prior to award of contracts and implements all required measures</p> <p>Ensures quality assurance of civil works and equipment installation</p> <p>Ensures safeguards monitoring and grievance redress mechanism</p> <p>Endorses claims from the contractors and supplying companies</p>

## B. Key Persons Involved in Implementation

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<b>Executing Agency</b>	
Ministry of Construction and Urban Development	<p>Mr. L. Chinzorig          Director General          Department of Construction and Public Utilities Policy Department          Tel.: +976 99103611          Fax: +976 11 322 904          E-mail: chinzorig@mcud.gov.mn          Office Address: Government Bldg. 12          Barilgachdin Talbai 3          Ulaanbaatar 15170          Mongolia</p>
<hr/>	
<b>Implementing Agencies</b>	
Uvurkhangai <i>aimag</i> government	<p>Mr. D.Togtokhsuren          Governor          Tel: +976 99113454, 98993454          Fax: +976 70323847          Email:          Address: Uvurkhangai <i>aimag</i>, Arvaikheer city,          Government building</p>
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Dornogovi <i>aimag</i> government	<p>Mr. P.Gankhuyag          Governor          Tel: +976 99115163          Fax: +976 70532330          Email: pantiigankhuyag@yahoo.co.jp          Address: Dornogovi <i>aimag</i>, Sainshand city, Government building</p>
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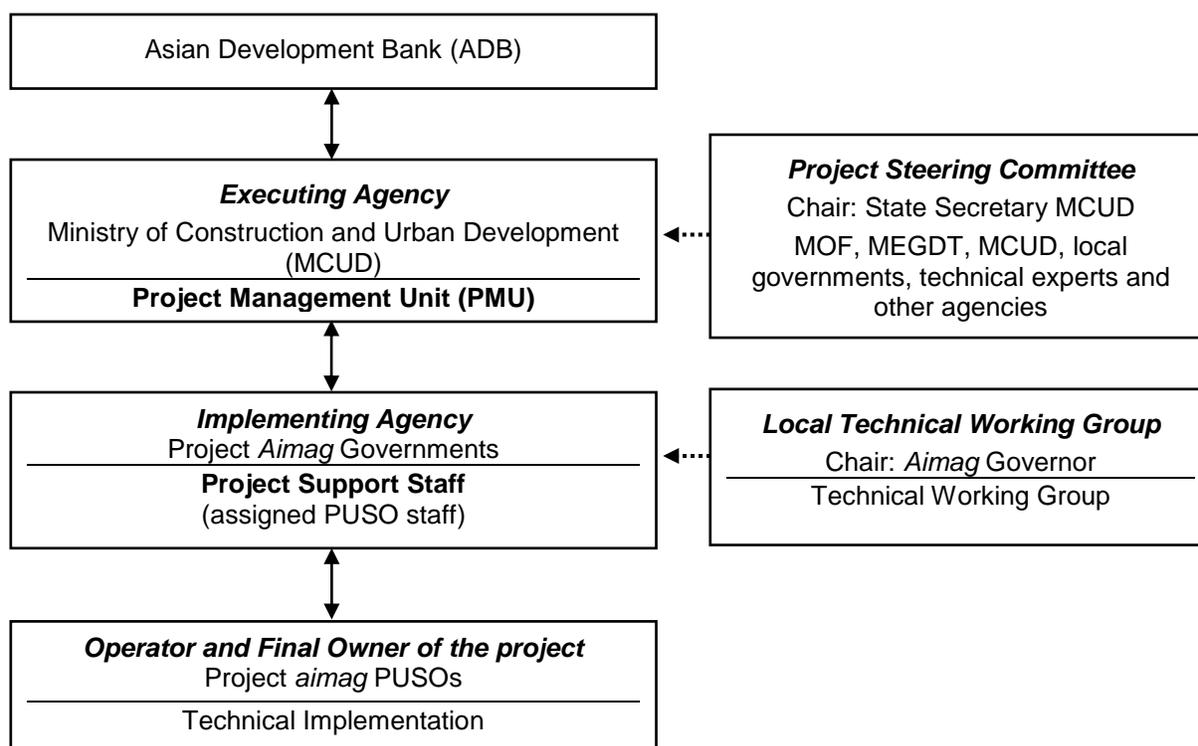
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**C. Project Organization Structure**

**IV. COSTS AND FINANCING**

**A. Proposed Project Extension**

16. This section describes the project cost categories and components to be financed by the ADB and the Government of Mongolia for the extension of the Southeast Gobi Urban and Border Town Development Project in Avairkheer, Dalanzadgad, Tsetserleg and Sainshand *aimags*. The project cost categories for the extension project are given in Table 1.

**Table 1: Project Cost Categories**

<b>Category</b>	<b>Description</b>
Civil Works	Construction of wastewater treatment plants, pump stations, polishing ponds, sewers, administration buildings, and all concreting works; reclamation of existing sludge drying ponds.
Materials and Equipment	Acquisition and installation of biofilm media, sludge treatment facility and filters, internal pipe networks, supervisory control and data acquisition (SCADA) control systems and communication links, pumps, power lines and substations, and water and heating lines.
Consulting services	Remuneration for project management, construction supervision and institutional reform consultants.
Project Management	PMU support staff salary, audit, and miscellaneous administration costs, including communication, transportation, and office supplies. Capacity building and training costs.

17. The following key assumptions underpin the determination of the cost estimates and financing plan for the extension project:

- (i) Exchange rate applied is MNT2,046.5 = \$1.00 (as of 16 March 2016).
- (ii) Price contingencies, based on expected cumulative inflation over the implementation period are: for foreign cost components, 1.5% in 2016, 1.4% in 2017 and 1.5% in 2018 and thereafter; and for local cost components, 7.6% in 2016 and 7% in 2017 and thereafter. Price contingencies are calculated applying purchasing power parity.

18. The current project financing amounts to \$21.87 million, the proposed project will require additional financing estimated at \$21.17 million. The total investment for the extension project includes physical and price contingencies, and financing charges during implementation and loan commitment fees. Table 2 presents the project investment cost.

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

Item	Current Amount <sup>a</sup>	Additional Financing <sup>b</sup>	Total
<b>A. Base Cost<sup>c</sup></b>			
1. Civil Works	12.50	12.92	25.42
2. Materials and Equipment	2.37	2.07	4.44
3. Project Management and Consulting	2.81	2.31	5.12
<b>Subtotal (A)</b>	<b>17.67</b>	<b>17.30</b>	<b>34.97</b>
<b>B. Contingencies<sup>d</sup></b>			
1. Physical	0.62	1.87	2.49
2. Price	3.58	1.38	4.96
<b>Subtotal (B)</b>	<b>4.20</b>	<b>3.24</b>	<b>7.44</b>
<b>C. Financing Charges During Implementation</b>		<b>0.63</b>	<b>0.63</b>
<b>Total (A+B+C)</b>	<b>21.87</b>	<b>21.17</b>	<b>43.04</b>

Note: Numbers may not sum precisely due to rounding.

<sup>a</sup> Refers to the original amount. Includes taxes and duties of \$1.45 million.

<sup>b</sup> Includes taxes and duties of \$1.74 million to be financed from government resources.

<sup>c</sup> The current amount includes financing and other charges. Additional financing is based on December 2015 prices and an exchange rate of \$1.0 = MNT1,989.5.

<sup>d</sup> For additional financing, physical contingencies are computed at 12% for works and goods. Price contingencies are computed applying purchasing power parity based on exchange rate and domestic inflation rates: 7.6% for 2016 and 7.0% in 2017 onward; and foreign inflation rates: 1.5% for 2016, 1.4% in 2017, and 1.5% for 2018 onward.

Source: Asian Development Bank estimates.

## B. Investment and Financing Plan

19. The government has requested a loan in various currencies equivalent to SDR13,994,000 from ADB's Special Funds resources to help finance the project. The loan will have a 25-year term, including a grace period of 5 years, an interest charge at the rate of 2% per annum during the grace period and thereafter, and any such other terms and conditions set forth in the draft loan and project agreements. The loan will be free of any commitment charge and interest during construction will be capitalized in the loan. The average maturity is 15.25 years. ADB will finance 100% of contingencies and financing charges. The government will finance 100% of taxes and duties amounting to \$1.74 million. Table 3 presents the revised financing plan of the current and additional financing project.

**Table 3: Revised Financing Plan**

Source	Current		Additional Financing		Total	
	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)
Asian Development Bank						
Special funds resources (loan)			19.43	91.80	34.43	80.0
Special funds resources (grant)	15.00	69.00				
Government of Mongolia/ <i>Aimag</i>	6.87	31.00	1.74	8.20	8.61	20.0
<b>Total Financing</b>	<b>21.87</b>	<b>100.00</b>	<b>21.17</b>	<b>100.00</b>	<b>43.04</b>	<b>100.0</b>

<sup>a</sup> Refers to the original amount and any previous additional financing.

<sup>b</sup> An *aimag* is a provincial administrative unit in Mongolia.

Source: Asian Development Bank estimates.

20. The Government will relend the proceeds of the ADF loan to *aimag* governments under a subsidiary loan agreement on the terms and conditions satisfactory to ADB and in accordance with the loan and project agreements. Taxes and duties are the responsibility of the borrower.

### C. Allocation and Withdrawal of Loan Proceeds

#### Allocation and Withdrawal of Loan Proceeds

Category				ADB Financing Percentage and Basis for Withdrawal from the Loan Account
No.	Item	Total Amount Allocated for Additional Financing (\$ million)		
		Category	Sub-category	
1.	Civil Works	11.62		100% of total expenditure
2.	Materials and Equipment	1.86		100% of total expenditure
3.	Project Management and Institutional Strengthening	2.08		100% of total expenditure
4.	Interest Charges	0.63		100% of amount due
5.	Unallocated	3.24		
<b>Total</b>		19.43 <sup>a</sup>		

ADB = Asian Development Bank, ADF = Asian Development Fund

<sup>a</sup> Excluding taxes and duties.

Source: Asian Development Bank estimates.

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

Item	(MNT million)			(\$ million)			% of Base Cost	% of Total Cost
	Foreign Currency	Local Currency	Total Cost	Foreign Currency	Local Currency	Total Cost <sup>a</sup>		
<b>A. Investment Cost<sup>b</sup></b>								
1. Wastewater Treatment Plant								
1.1. Civil Works	13,312	8,875	22,187	6.69	4.46	11.15	64.5	52.7
1.2. Materials and Equipment	1,360	907	2,267	0.68	0.46	1.14	6.6	5.4
1.3. Commissioning Costs	530	353	883	0.27	0.18	0.44	2.6	2.1
2. Off-site Services								
2.1. Mains, Pumps	2,009	1,339	3,348	1.01	0.67	1.68	9.7	8.0
2.2. Power, Heating Lines, SCADA	1,812	201	2,013	0.91	0.10	1.01	5.8	4.8
3. Project Management & Institutional								
3.1. PMIS and Institutional Reform	2,180	242	2,422	1.10	0.12	1.22	7.0	5.8
3.2. PMU Support	1,162	129	1,291	0.58	0.06	0.65	3.8	3.1
<b>Subtotal (A)</b>	<b>22,365</b>	<b>12,047</b>	<b>34,412</b>	<b>11.24</b>	<b>6.06</b>	<b>17.30</b>	<b>100.0</b>	<b>81.7</b>
<b>B. Contingencies<sup>c</sup></b>								
1. Physical	2,414	1,300	3,714	1.21	0.65	1.87	10.8	8.8
2. Price	757	1,980	2,737	0.38	1.00	1.38	8.0	6.5
<b>Sub-total (B)</b>	<b>3,171</b>	<b>3,280</b>	<b>6,451</b>	<b>1.59</b>	<b>1.65</b>	<b>3.24</b>	<b>18.8</b>	<b>15.3</b>
<b>C. Financing Charges During Implementation<sup>d</sup></b>								
1. Interest During Construction	1,248	-	1,248	0.63	-	0.63	3.6	3.0
2. Commitment Fees	-	-	-	-	-	-	-	-
<b>Sub-total (C)</b>	<b>1,248</b>	<b>-</b>	<b>1,248</b>	<b>0.63</b>	<b>-</b>	<b>0.63</b>	<b>3.6</b>	<b>3.0</b>
<b>Total Project Cost (A+B+C)</b>	<b>26,784</b>	<b>15,327</b>	<b>42,111</b>	<b>13.46</b>	<b>7.70</b>	<b>21.17</b>	<b>122.4</b>	<b>100.0</b>

Note: Numbers may not sum precisely because of rounding.

<sup>a</sup> Includes taxes and duties of \$1.74 million to be financed by government.

<sup>b</sup> In December 2015 prices and an exchange rate of \$1.00 = MNT1,989.5.

<sup>c</sup> Physical contingencies are computed at 12% for works and goods. Price contingencies are computed using domestic inflation rates: 7.6% for 2016 and 7% in 2017 and onwards; and foreign inflation rates: 1.5% for 2016, 1.4% for 2017 and 1.5% for 2018 and onwards. Price contingencies are calculated applying purchasing power parity.

<sup>d</sup> Interest during construction for the ADB loan has been computed at 2% per year for the 5-year grace period.

Source: Asian Development Bank estimates.

## E. Detailed Cost Estimates by Financier

(\$ million)

Item	Total Cost <sup>a</sup>	ADB		Aimag	
		Amount	% Cost Category	Amount	% Cost Category
<b>A. Investment Cost<sup>b</sup></b>					
1. Wastewater Treatment Plant					
1.1. Civil Works	11.15	10.03	89.9	1.12	10.1
1.2. Materials and Equipment	1.14	1.02	89.9	0.11	10.1
1.3. Commissioning Costs	0.44	0.40	89.9	0.04	10.1
Subtotal (1)	12.74	11.45	89.9	1.28	10.1
2. Off-site Services					
2.1. Mains, Pumps	1.68	1.51	89.9	0.17	10.1
2.1.a. Civil Works	1.68	1.51	89.9	0.17	10.1
2.1.b. Materials and Equipment	-	-	-	-	-
2.2. Power, Heating Lines, SCADA	1.01	0.91	89.9	0.10	10.1
2.2.a. Civil Works	0.08	0.08	89.9	0.01	10.1
2.2.b. Materials and Equipment	0.93	0.83	89.9	0.09	10.1
Subtotal (2)	2.69	2.42	89.9	0.27	10.1
3. Project Management & Institutional					
3.1. PMIS and Institutional Reform	1.22	1.10	89.9	0.12	10.1
3.2. PMU Support	0.65	0.58	89.9	0.07	10.1
Subtotal (3)	1.87	1.68	89.9	0.19	10.1
<b>Subtotal (A)</b>	<b>17.30</b>	<b>15.56</b>	<b>89.9</b>	<b>1.74</b>	<b>10.1</b>
<b>B. Contingencies<sup>c</sup></b>					
1. Physical	1.87	1.87	100.0	-	-
2. Price	1.38	1.38	100.0	-	-
<b>Sub-total (B)</b>	<b>3.24</b>	<b>3.24</b>	<b>100.0</b>	<b>-</b>	<b>-</b>
<b>C. Financing Charges During Implementation<sup>d</sup></b>					
1. Interest During Construction	0.63	0.63	100.0	-	-
2. Commitment Fees	-	-	-	-	-
<b>Sub-total (C)</b>	<b>0.63</b>	<b>0.63</b>	<b>100.0</b>	<b>-</b>	<b>-</b>
<b>Total Project Cost (A+B+C)</b>	<b>21.17</b>	<b>19.43</b>	<b>91.8</b>	<b>1.74</b>	<b>8.2</b>

Note: Numbers may not sum precisely because of rounding.

<sup>a</sup> Includes taxes and duties of \$1.74 million to be financed from government and Asian Development Bank (ADB) loan resources.

<sup>b</sup> In December 2015 prices and an exchange rate of \$1.00 = MNT1,989.5.

<sup>c</sup> Physical contingencies are computed at 12% for works and goods. Price contingencies are computed using domestic inflation rates: 7.6% for 2016 and 7% in 2017 and onwards; and foreign inflation rates: 1.5% for 2016, 1.4% for 2017 and 1.5% for 2018 and onwards. Price contingencies are calculated applying purchasing power parity.

<sup>d</sup> Interest during construction for the ADB loan has been computed at 2% per year for the 5-year grace period.

Source: Asian Development Bank estimates.

## F. Detailed Cost Estimates by Output

(\$ million)

Item	Total Cost <sup>a</sup>	Wastewater Treatment Plant		On-site Services		PMIS, Safeguards, Institutional		PMU Support	
		Amount	% Cost Category	Amount	% Cost Category	Amount	% Cost Category	Amount	% Cost Category
<b>A. Investment Cost<sup>b</sup></b>									
1. Wastewater Treatment Plant									
1.1. Civil Works	11.15	11.15	100.0		0.0		0.0		0.0
1.2. Materials and Equipment	1.14	1.14	100.0		0.0		0.0		0.0
1.3. Commissioning Costs	0.44	0.44	100.0		0.0		0.0		0.0
Subtotal (1)	12.74	12.74	100.0	-	0.0	-	0.0	-	0.0
2. Off-site Services									
2.1. Mains, Pumps	1.68	-	0.0	1.68	100.0	-	0.0	-	0.0
2.1.a. Civil Works	1.68		0.0	1.68	100.0		0.0		0.0
2.1.b. Materials and Equipment	-		0.0	-	0.0		0.0		0.0
2.2. Power, Heating Lines, SCADA	1.01	-	0.0	1.01	100.0	-	0.0	-	0.0
2.2.a. Civil Works	0.08		0.0	0.08	100.0		0.0		0.0
2.2.b. Materials and Equipment	0.93		0.0	0.93	100.0		0.0		0.0
Subtotal (2)	2.69	-	0.0	2.69	100.0	-	0.0	-	0.0
3. Project Management & Institutional									
2.1. PMIS and Institutional Reform	1.22		0.0		0.0	1.22	100.0		0.0
3.2. PMU Support	0.65		0.0		0.0		0.0	0.65	100.0
Subtotal (3)	1.87	-	0.0	-	0.0	1.22	65.2	0.65	34.8
<b>Subtotal (A)</b>	<b>17.30</b>	<b>12.74</b>	<b>73.6</b>	<b>2.69</b>	<b>15.6</b>	<b>1.22</b>	<b>7.0</b>	<b>0.65</b>	<b>3.8</b>
<b>B. Contingencies<sup>c</sup></b>									
1. Physical	1.87	1.37	73.6	0.29	15.6	0.13	7.0	0.07	3.8
2. Price	1.38	1.11	80.4	0.19	13.8	0.05	3.8	0.03	2.0
<b>Sub-total (B)</b>	<b>3.24</b>	<b>2.48</b>	<b>76.5</b>	<b>0.48</b>	<b>14.8</b>	<b>0.18</b>	<b>5.6</b>	<b>0.10</b>	<b>3.0</b>
<b>C. Financing Charges During Implementation<sup>d</sup></b>									
1. Interest During Construction	0.63	0.48	76.5	0.09	14.8	0.04	5.6	0.02	3.0
2. Commitment Fees	-	-	0.0	-	0.0	-	0.0	-	0.0
<b>Sub-total (C)</b>	<b>0.63</b>	<b>0.48</b>	<b>76.5</b>	<b>0.09</b>	<b>14.8</b>	<b>0.04</b>	<b>5.6</b>	<b>0.02</b>	<b>3.0</b>
<b>Total Project Cost (A+B+C)</b>	<b>21.17</b>	<b>15.70</b>	<b>74.2</b>	<b>3.27</b>	<b>15.4</b>	<b>1.44</b>	<b>6.8</b>	<b>0.77</b>	<b>3.6</b>

Note: Numbers may not sum precisely because of rounding.

<sup>a</sup> Includes taxes and duties of \$1.74 million to be financed from government and Asian Development Bank (ADB) loan resources.

<sup>b</sup> In December 2015 prices and an exchange rate of \$1.00 = MNT1,989.5.

<sup>c</sup> Physical contingencies are computed at 12.0% for works and goods. Price contingencies are computed using domestic inflation rates: 7.6% for 2016 and 7 % in 2017 and onwards; and foreign inflation rates: 1.5% for 2016, 1.4% for 2017 and 1.5% for 2018 and onwards. Price contingencies are calculated applying purchasing power parity.

<sup>d</sup> Interest during construction for the ADB loan has been computed at 2% per year for the 5-year grace period.

Source: Asian Development Bank estimates .

**G. Detailed Cost Estimates by Year**

(\$ million)						
Item	Total Cost <sup>a</sup>	2016 Year 1	2017 Year 2	2018 Year 3	2019 Year 4	2020 Year 5
<b>A. Investment Cost<sup>b</sup></b>						
1. Wastewater Treatment Plant						
1.a. Civil Works	11.15	-	2.23	8.92	-	-
1.b. Materials and Equipment	1.14	-	0.80	0.34	-	-
1.c. Commissioning Costs	0.44	0.07	0.18	0.13	0.07	-
Subtotal (1)	12.74	0.07	3.21	9.40	0.07	-
2. Off-site Services						
2.1. Mains, Pumps	1.68	-	0.34	1.35	-	-
2.1.a. Civil Works	1.68	-	0.34	1.35	-	-
2.1.b. Materials and Equipment	-	-	-	-	-	-
2.2. Power, Heating Lines, SCADA	1.01	-	0.67	0.35	-	-
2.2.a. Civil Works	0.08	-	0.02	0.07	-	-
2.2.b. Materials and Equipment	0.93	-	0.65	0.28	-	-
Subtotal (2)	2.69	-	1.00	1.69	-	-
3. Project Management & Institutional						
3.1. PMIS and Institutional Reform	1.22	0.18	0.49	0.37	0.18	-
3.2. PMU Support	0.65	0.10	0.26	0.19	0.10	-
Subtotal (3)	1.87	0.28	0.75	0.56	0.28	-
<b>Subtotal (A)</b>	<b>17.30</b>	<b>0.35</b>	<b>4.96</b>	<b>11.65</b>	<b>0.35</b>	<b>-</b>
<b>B. Contingencies<sup>c</sup></b>						
1. Physical	1.87	0.04	0.53	1.26	0.04	-
2. Price	1.38	0.01	0.27	1.07	0.03	-
<b>Sub-total (B)</b>	<b>3.24</b>	<b>0.04</b>	<b>0.80</b>	<b>2.33</b>	<b>0.07</b>	<b>-</b>
<b>C. Financing Charges During Implementation<sup>d</sup></b>						
1. Interest During Construction	0.63	0.00	0.06	0.18	0.19	0.19
2. Commitment Fees	-	-	-	-	-	-
<b>Sub-total (C)</b>	<b>0.63</b>	<b>0.00</b>	<b>0.06</b>	<b>0.18</b>	<b>0.19</b>	<b>0.19</b>
<b>Total Project Cost (A+B+C)</b>	<b>21.17</b>	<b>0.39</b>	<b>5.81</b>	<b>14.16</b>	<b>0.60</b>	<b>0.19</b>

Note: Numbers may not sum precisely because of rounding.

<sup>a</sup> Includes taxes and duties of \$1.74 million to be financed from government and Asian Development Bank (ADB) loan resources.

<sup>b</sup> In December 2015 prices and an exchange rate of \$1.00 = MNT1,989.5.

<sup>c</sup> Physical contingencies are computed at 12.0% for works and goods. Price contingencies are computed using domestic inflation rates: 7.6% for 2016 and 7% in 2017 and onwards; and foreign inflation rates: 1.5% for 2016, 1.4% for 2017 and 1.5% for 2018 and onwards. Price contingencies are calculated applying purchasing power parity.

<sup>d</sup> Interest during construction for the ADB loan has been computed at 2% per year for the 5-year grace period.

Source: Asian Development Bank estimates.

**H. Contract and Disbursement S-curve**

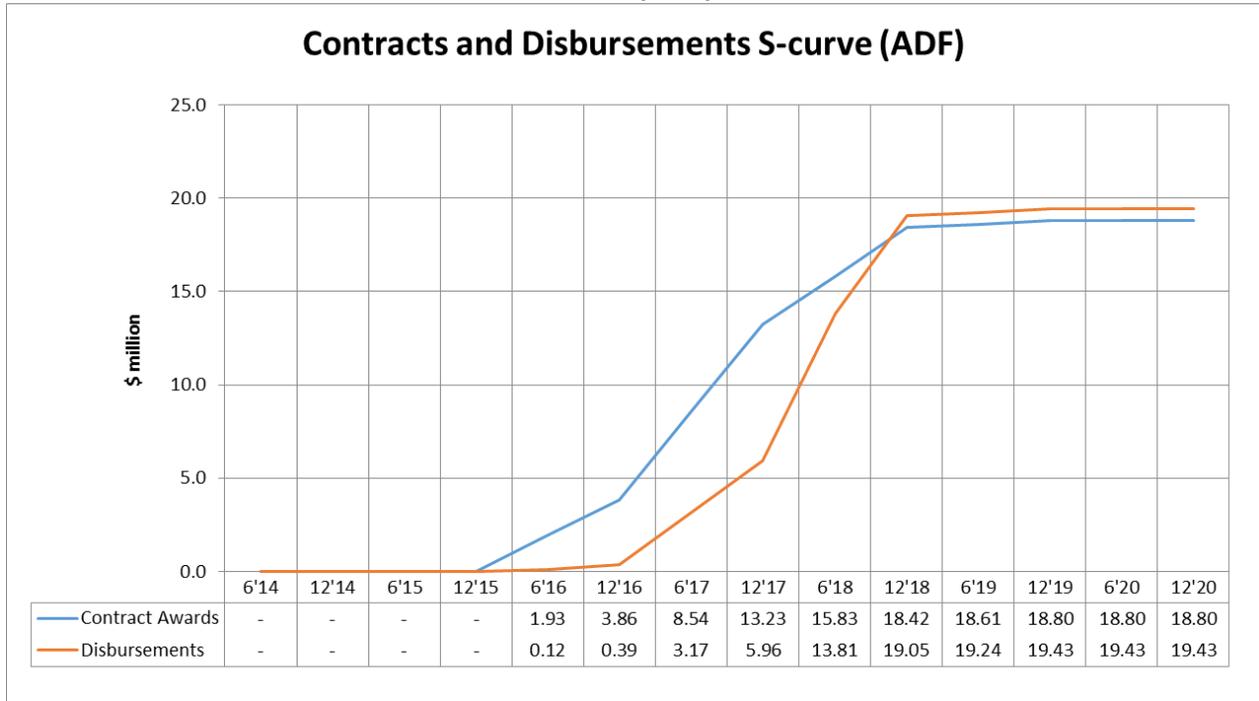
21. The projected contract awards and disbursements<sup>24</sup> under the ADF loan for the additional financing project and the corresponding S-curve are presented below.

**Schedule of Disbursement and Contract Awards**  
(\$ million)

Year	Contract Awards <sup>a</sup>					Disbursements				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2016	0.00	0.00	1.93	1.93	3.86	0.00	0.00	0.12	0.27	0.39
2017	2.34	2.34	2.34	2.34	9.37	1.39	1.39	1.39	1.39	5.57
2018	1.30	1.30	1.30	1.30	5.19	3.93	3.93	2.62	2.62	13.09
2019	0.09	0.09	0.09	0.09	0.38	0.10	0.10	0.10	0.10	0.39
2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>3.73</b>	<b>3.73</b>	<b>5.66</b>	<b>5.66</b>	<b>18.80</b>	<b>5.42</b>	<b>5.42</b>	<b>4.22</b>	<b>4.38</b>	<b>19.43</b>

<sup>a</sup> Excludes financing charges.

**S-curve (ADF)**



<sup>24</sup> This projection was agreed during the loan negotiations on 15 March 2016 but will be subject to any necessary revision before loan effectiveness.



## V. FINANCIAL MANAGEMENT

### A. Financial Management Assessment

22. Financial management assessment (FMA) was conducted in October to December 2015<sup>25</sup>. The FMA considered the capacity of the *aimags* and PUSOs in project funds-flow arrangements, accounting and financial reporting, information systems, and internal and external auditing. Findings show all four *aimags* have experience implementing international donor-funded projects including several projects related to water supply, waste water treatment, e.g., ADB-funded L1907-MON and G0204 in Dornogovi and Umnugovi *aimags*, MON1907 in Arkhangai *aimag*, and L2301-MON in Uvurkhangai *aimag*. *Aimag* accounting and financial management systems are computerized, using software for budget planning, accounts consolidation and reporting. *Aimag* Audit Office undertakes monitoring and evaluation periodically. *Aimag* transactions are made through the State Bank. Likewise, all four PUSOs have experience implementing foreign-funded projects. For accounting and reporting purposes PUSOs use “Vinnica” software. As license holders of the Water and Sewerage Regulatory Commission, all PUSOs are obliged to report financial statements quarterly and that good monitoring and control mechanisms are in place. Audit is performed by an independent auditor. PUSOs are free to open accounts in any commercial bank.

23. Based on the assessment, the key financial management risks identified are limited staffing in the *aimags* and PUSOs, and the need to enhance staff familiarity with ADB financial management policies and procedures. FMA rates the overall pre-mitigation financial management risk of the *aimags* and PUSOs as *moderate*; however, financial and accounting personnel of the entities require training on specific ADB disbursement guidelines and procedures. Online training for project staff on disbursement policies and procedures is available at [http://wpqr4.adb.org/disbursement\\_elearning](http://wpqr4.adb.org/disbursement_elearning). Executing agency and PMU staff are likewise encouraged to avail of this training to help upgrade efficiencies in project disbursement and fiduciary control.

### B. Disbursement

24. Loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2015, as amended from time to time),<sup>26</sup> and detailed arrangements agreed upon between the government and ADB. The disbursements from the loan proceeds will be in accordance with the Allocation and Withdrawal of Loan Proceeds specified in the loan agreement. Pursuant to ADB's Safeguard Policy Statement (SPS),<sup>27</sup> (June 2009) ADB funds may not be applied to the activities described in the ADB Prohibited Investment Activities List set forth at Appendix 5 of the SPS.

25. **Imprest Fund Procedure.** MOF will establish immediately after loan effectiveness a project imprest account for loan proceeds at a commercial bank acceptable to ADB. The currency of the imprest account is in US dollar. The imprest account is to be used exclusively for ADB's share of eligible expenditures. MOF may request initial and additional advances from ADB based on its estimate of ADB's share of eligible project expenditures for the forthcoming 6

<sup>25</sup> FMA is conducted in accordance with ADB's Guidelines for the Financial Management and Analysis of Projects and the Financial Due Diligence: a Methodology Note.

<sup>26</sup> Available at: [http://www.adb.org/Documents/Handbooks/Loan\\_Disbursement/loan-disbursement-final.pdf](http://www.adb.org/Documents/Handbooks/Loan_Disbursement/loan-disbursement-final.pdf)

<sup>27</sup> Available at: <http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf>

months which are to be paid through the imprest account.<sup>28</sup> MOF establishes the imprest account in the project's name and provides oversight for its use. MCUD is accountable and responsible for proper use of advances to the account. The PMU will manage advances to the imprest account on behalf of MOF.

26. The total outstanding advance to the imprest account should not exceed the estimate of ADB's share of expenditures to be paid through the imprest account for the forthcoming 6 months. Supporting documents should be submitted to ADB or retained by the borrower in accordance with *ADB's Loan Disbursement Handbook* (2015, as amended from time to time) when liquidating or replenishing the imprest account.

27. **Statement of Expenditure Procedure.** The Statement of Expenditure (SOE) procedure may be used for reimbursement of eligible expenditures or liquidation of advances to the imprest account. The ceiling of the SOE procedure is the equivalent of \$500,000 per individual payment. Supporting documents and records for the expenditures claimed under the SOE should be maintained and made readily available for review by ADB's disbursement and review missions, upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit. Reimbursement and liquidation of individual payments in excess of the SOE ceiling should be supported by full documentation when submitting the withdrawal application to ADB.

28. The minimum value per withdrawal application is set in accordance with *ADB's Loan Disbursement Handbook*. Individual payments below this amount should be paid by the executing agency and subsequently claimed from ADB through reimbursement or from the imprest account. Prior to submission of the first withdrawal application for each loan, MOF should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower together with the authenticated specimen signatures of each authorized person.

### **C. Accounting**

29. The project will be implemented through existing institutions and using country systems where possible and consistent with international accounting principles and practices acceptable to the ADB. Accordingly, the PMU will prepare consolidated project financial statement. The PMU on behalf of the executing agency will also maintain separate project accounts and records by funding source for all expenditures incurred on the project.

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

30. The PMU, on behalf of the executing agency, will cause the detailed consolidated financial statements, including the statement of utilization of funds to be audited in accordance with International Standards on Auditing or equivalent national standards, by an independent auditor acceptable to ADB. The audited project financial statements together with the auditor's opinion will be submitted in English language to ADB within 6 months of the end of the fiscal year by the executing agency.

31. The audit report for the project financial statements will include a management letter and auditor's opinions, which cover (i) whether the project financial statements present an accurate

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<sup>28</sup> The form is available in Appendix 10A of ADB's Loan Disbursement Handbook (2015, as amended from time to time).

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).

32. 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.

33. The government, MOF, and MCUD have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.<sup>29</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.

34. Public disclosure of the project financial statements, including the audit report on the project financial statements, will be guided by ADB's Public Communications Policy (2011).<sup>30</sup> After review, ADB will disclose the financial statements for the project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website. The Audit Management Letter will not be disclosed.

## VI. PROCUREMENT AND CONSULTING SERVICES

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

35. All procurement of goods, works and consulting services financed from the ADB loan will be carried out in accordance with ADB's Procurement Guidelines (2015, as amended from time to time).<sup>31</sup> Contracts for civil works valued at more than \$100,000 and less than \$5,000,000; and contracts for goods and related services valued at more than \$100,000 and less than \$2,000,000 will be procured through national competitive bidding procedures (NCB). The NCB will be undertaken in accordance with standard government procedures subject to modifications agreed with ADB. Contract packages for civil works and goods valued less than \$100,000 will be awarded through shopping procedure. Relevant sections of ADB's Anticorruption Policy (1998, as amended to date) will be included in all procurement documents and contracts). Any tendered equipment packages will include the necessary technical support to ensure proper

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<sup>29</sup> ADB's approach and procedures regarding delayed submission of audited project financial statements:

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

<sup>30</sup> <http://www.adb.org/site/disclosure/public-communications-policy/pcp-handbook>

<sup>31</sup> <http://www.adb.org/documents/procurement-guidelines>

installation, testing, commissioning, and training of operational staff as part of the related contracts. The selection and engagement of contractors for works, goods, and/or consulting services to be financed by ADB loan will be subject to ADB approval.

36. A procurement plan indicating the thresholds and review procedures; contract packages for goods, works, and consulting services; and NCB procedures is provided in Section B below. Any necessary modifications or clarifications to the recipient procurement procedures will be documented in the procurement plan.

37. For procurement of goods and works, the PMU will follow ADB's Procurement Guidelines (2015, as amended from time to time); and undertake procurement in accordance with established commercial practices acceptable to the government and ADB. To be acceptable, the PMU will (i) demonstrate that procedures are appropriate in the circumstances, (ii) ensure that goods and services financed using project funds are purchased with consideration to economy and efficiency at a reasonable price, given time of delivery, quality, and efficiency, and (iii) ensure that goods and services to be financed by project funds are procured from ADB member countries. The PMU is encouraged to procure goods and works through NCB and shopping, where applicable in the interest of economy and efficiency. The PMU staff are considered to have gained adequate experience in carrying out procurement activities undertaken under the ongoing project.

38. The project is expected to require a total of 16 person-months of international and 396 person-months of national consultancy inputs to support project management and implementation, and to support institutional development and capacity building (IDCB) of the PUSOs. The PMU, on behalf of the executing agency will engage consultants for Project Management and Implementation Support (PMIS) through quality- and cost-based selection (QCBS) methods and for Capacity Building and Institutional Development through quality-based selection (QBS) and individual consultant selection (ICS) methods. All consultants hired under the project and to be financed by ADB will be engaged following ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). The terms of reference (TOR) of the consultants are in Appendix 3.

## B. Procurement Plan

### Basic Data

<b>Project Name:</b> Southeast Gobi Urban and Border Town Development Project (additional financing)	
<b>Project Number:</b> 42184-024	<b>Approval Number:</b>
<b>Country:</b> Mongolia	<b>Executing Agency:</b> Ministry of Construction and Urban Development
<b>Project Procurement Classification:</b>	<b>Implementing Agency:</b> Aimag Government of Arkhangai, Aimag Government of Dornogobi, Aimag Government of Umnugobi, Aimag Government of Uvurkhanga
<b>Project Procurement Risk:</b>	
<b>Project Financing Amount:</b> US\$ 21,170,000 <b>ADB Financing:</b> US\$ 19,430,000 <b>Cofinancing (ADB Administered):</b> <b>Non-ADB Financing:</b> US\$ 1,740,000	<b>Project Closing Date:</b> 20 June 2020
<b>Date of First Procurement Plan:</b> 24 November 2015	<b>Date of this Procurement Plan:</b> 24 November 2015

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

### 1. Procurement and Consulting Methods and Thresholds

39. 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
National Competitive Bidding for Goods	Between US\$ 100,000 and US\$ 1,999,999	The first NCB contract is subject to prior review, thereafter post review.
Shopping for Goods	Up to US\$ 99,999	
National Competitive Bidding for Works	Between US\$ 100,000 and US\$ 4,999,999	The first NCB contract is subject to prior review, thereafter post review.
Shopping for Works	Up to US\$ 99,999	

Consulting Services	
Method	Comments
Quality- and Cost-Based Selection for Consulting Firm	International, quality/cost ratio 90:10, FTF
Quality-Based Selection for Consulting Firm	National quality-based evaluation and negotiation on price
Individual Consultants Selection for Individual Consultant	National

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

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

Package Number	General Description	Estimated Value	Procurement Method	Review (Prior/Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
A1.1	Wastewater Treatment Plant and ancillary services in Arkhangai aimag	3,810,000.00	NCB	Prior	1S1E	Q1 / 2017	Prequalification of Bidders: N  Domestic Preference Applicable: N  Bidding Document: Small Works  Comments: (i) Constr'n of WWTP-inlet works, main reactor & other struct'l comp & install'n of aeration & rel eqpt for IFAS wastewater treatmt process

							incl build & opertn support for 3 yrs; & (ii) prov'n of assoc trunk sewer main & power line
A1.2	Wastewater Treatment Plant and ancillary services in Dornogobi aimag	3,720,000.00	NCB	Post	1S1E	Q1 / 2017	<p>Prequalification of Bidders: N</p> <p>Domestic Preference Applicable: N</p> <p>Bidding Document: Small Works</p> <p>Comments: (i) Constr'n of WWTP-inlet works, main reactor &amp; other struct'l comp &amp; install'n of aeration &amp; rel eqpt for IFAS WW treatmt process incl build &amp; oper'n suppt for 3 yrs; (ii) prov'n of assoc trunk sewer main, power line, sub-stat'n &amp; SCADA link</p>
A1.3	Wastewater Treatment Plant and ancillary services in Umnugobi aimag	4,400,000.00	NCB	Post	1S1E	Q1 / 2017	<p>Prequalification of Bidders: N</p> <p>Domestic Preference Applicable: N</p> <p>Bidding Document: Small Works</p> <p>Comments: (i) Constr'n of WWTP-inlet works, main reactor &amp; other struct'l comp &amp; install'n of aeration &amp; rel eqpt for IFAS WW treatmt process incl</p>

							build & oper'n suppt for 3yrs; (ii)prov'n of assoc trunk sewer main,powr line,sub-stat'n &flood cntrl bund
A1.4	Wastewater Treatment Plant and ancillary services in Uvurkhangai aimag	4,230,000.00	NCB	Post	1S1E	Q1 / 2017	Prequalification of Bidders: N  Domestic Preference Applicable: N  Bidding Document: Small Works  Comments: (i)Constr'n of WWTP-inlet works, main reactor & other struct'l comp & install'n of aeration & rel eqpt for IFAS WW treatmt process incl build & oper'n support for 3 yrs; (ii)prov'n of assoc trunk sewer main & power line

<sup>a</sup> Cost estimates are exclusive of taxes and duties.  
WWTP = wastewater treatment plant

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

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

Package Number	General Description	Estimated Value	Recruitment Method	Review (Prior/ Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
B.1	Project management, procurement and supervision support. Project safeguards and quality assurance monitoring and evaluation support	750,000.00	QCBS	Prior	Q3 / 2016	FTP	Assignment: International  Quality-Cost Ratio: 90:10  Comments: Agreed during loan



Number		Value (cumulative)	Number of Contracts	Method	(Prior/Post)	Proposal	
None							

## C. National Competitive Bidding

### A. Regulation and Reference Documents

44. The procedures to be followed for national competitive bidding shall be those set forth in the Public Procurement Law of Mongolia of 1 December 2005, effective 1 February 2006, as amended in February 2007; July 2009; and February, June and December 2011 (hereinafter referred to as PPLM), with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the ADB Procurement Guidelines.

### B. Procurement Procedures

#### 1. Eligibility [Recommended standard provision]

45. The eligibility of bidders shall be as defined under section I of the Procurement Guidelines; accordingly, no bidder or potential bidder should be declared ineligible for reasons other than those provided in section I of the Guidelines, **as amended from time to time**.

46. Government-owned enterprises in Mongolia shall be eligible for projects only if they can establish that they: (i) are legally and financially autonomous; (ii) operate under the principles of commercial law; and (iii) are not dependent agencies of the Borrower, Beneficiary, Recipient Executing Agency and/or the Implementing Agency.

#### 2. Participation of Foreign Bidders

47. International bidders from eligible countries of ADB shall be allowed to participate in local procurement and may not be denied participation due to nationality.

#### 3. Preferences

48. No domestic preference shall be given for domestic bidders and for domestically manufactured goods.

#### 4. Prequalification and Registration

49. Prequalification is discouraged for procurement contracts using NCB. When used, particularly for works contracts, an individual prequalification exercise is acceptable for each contract as is the use of a registration system (or approved standing list) of contractors based on criteria such as experience, financial capacity, and technical capacity. Foreign bidders from eligible countries must, however, be allowed to register and to bid without unreasonable cost or additional requirements.

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

50. All bids shall not be rejected or new bids invited without ADB's prior written concurrence.

51. No bid shall be rejected merely on the basis of a comparison with the estimated cost or budget ceiling without ADB's prior written concurrence (with specific reference to Article 30 of the PPLM).

### **C. Bidding Documents**

#### **6. Use of Bidding Documents**

52. National Standard Bidding Documents Goods and Works that have been approved for procurement in ADB-financed projects shall be used.

#### **7. Language**

53. Bidding documents may be prepared in other languages, but a copy of the bidding documents must be made available in English and submitted to ADB for review.

#### **8. Bid Validity**

54. Bidders shall be requested to extend the validity of their bids only under exceptional circumstances and the Executing or Implementing Agency, as the case may be, shall communicate such request for extension to all bidders before the date of expiry of their bids. When the procurement is subject to ADB's prior review, the Executing or Implementing Agency, as the case may be, shall obtain in a timely manner the prior written concurrence of ADB for the extension of the bid validity period.

#### **9. Bid Evaluation**

55. Evaluation and qualification criteria, and submission requirements, to be used in each bidding activity shall be clearly specified in the bidding documents. The evaluation of bids shall be done in strict adherence to the criteria specified in the bidding documents.

56. Negotiations with bidders shall not be undertaken before award of contract, except as provided in Paragraph 2.63 of ADB's Procurement Guidelines A bidder shall not be required, as a condition for award, to undertake obligations not specified in the bidding documents or otherwise to modify its bid as originally submitted.

57. At the same time that notification on award of contract is given to the successful bidder, the results of the bid evaluation shall be posted on a well-known freely accessible website (namely Mongolia's Ministry of Finance e-procurement website: [www.e-procurement.mn](http://www.e-procurement.mn)) identifying the bid and lot numbers and providing information on the: (i) name of each bidder that submitted a bid; (ii) bid prices as read out at bid opening; (iii) names 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 the duration and summary scope of the contract awarded. The Executing Agency or Implementing Agency, as the case may be, shall respond in writing to unsuccessful bidders who seek explanations on the grounds on which their bids were not selected.

#### **10. ADB Policy Clauses**

58. A provision shall be included in all NCB works and goods contracts financed by ADB requiring suppliers and contractors to permit ADB to inspect their accounts and records and

other documents relating to the bid submission and the performance of the contract, and to have them audited by auditors appointed by ADB.

59. A provision shall be included in all bidding documents for NCB works and goods contracts financed by ADB stating that the Borrower shall reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question.

60. A provision shall be included in all bidding documents for NCB works and goods contracts financed by ADB stating that ADB will declare a firm or individual ineligible, either indefinitely or for a stated period, to be awarded a contract financed by ADB, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices or any integrity violation in competing for, or in executing, ADB-financed contract.

### **C. Implementation of Consulting Services**

61. Consulting services will be required for Project Management and Implementation Support (PMIS) (Parts B1 and B5 of the project) and IDCB (Part B2). TOR for consulting services are provided in Appendix 1.

62. The PMIS consultancy services are to provide support to contract document preparation, project management, implementation and monitoring support, and related capacity development. Expertise is required in the following fields (i) WWTP tendering, construction, and operation; (ii) WWTP equipment specification; (iii) engineering construction management and supervision; (iv) environmental and social safeguards, and (v) project monitoring and evaluation.

63. The consultants will provide the following services: (i) preparation of plans, schedules and management and reporting arrangements for overall project execution and implementation; (ii) assistance in preparation of performance criteria and equipment specification for the WWTPs; (iii) preparation of contract documentation and related evaluation framework for the construction, supply and installation of the WWTPs; (iv) support in finalization of bid packages; (v) contracting process quality assurance; (vi) construction management and supervision support; (vii) project implementation facilitation of project design, contracting, management and implementation; and (viii) operational risk management and mitigation plan.

64. The DCIS consultancy services are to provide institutional and organization development, capacity building support and training to the project *aimag* governments and respective PUSOs. Expertise will be required in the fields of (i) organizational development and utilities reform; (ii) water and wastewater sector financial management and reform; (iii) institutional strengthening and capacity building in wastewater management and operation; (iv) human resource and staff development; and (v) business and operational planning and business plan preparation.

65. Support and training will be provided in (i) wastewater management and operation; (ii) WWTP operation; (iii) utilities management; (iv) financial management; (v) environmental and social safeguards, (vi) institutional development; (vii) human resource development; and (vi) project monitoring and evaluation. The services will use materials already developed through the ongoing project and through other recent urban development initiatives, and will support the mainstreaming of these improved approaches, procedures and working practices into PUSO

operations. Expertise is required in the following fields: (i) organizational development and utility reform; (ii) water and wastewater sector financial management; (iii) human resource development; (iv) capacity building in WWTP operation and maintenance and business planning; and (v) other specializations as required. Tasks undertaken will include

- (i) Analysis of the Current Situation: An assessment and analysis of the current situation with respect to the planning and delivery of water supply and wastewater services in project towns PUSOs;
- (ii) Strategic review of sector reforms at the national and local level;
- (iii) Organizational Restructuring: Based on work under Parts 1 and 2, generate a preferred option for organizational restructuring and capacity development;
- (iv) Operational restructuring: develop options for operational restructuring and capacity development;
- (v) Improving financial management systems: Develop proposals for improved financial sustainability and financial management;
- (vi) Regulation–tariff setting, billing, and income collection: Develop proposals for improved service regulation, tariff setting, billing and bill recovery;
- (vii) Emergency preparedness and response planning: Develop an emergency preparedness and response plan; and
- (viii) First stage reforms and capacity building: Support the first phase of institutional and organizational reform, and carry out related capacity development.
- (ix) Part B5 of the project will fund additional technical support to the PMU totaling 24 person-months including 10 person-months of an independent environmental monitoring consultant. The individual independent consultant will be a licensed monitoring entity in Mongolia and will conduct independent EMP implementation verification and environment quality monitoring during project construction.

## VII. SAFEGUARDS

### A. Environment Safeguards

66. **Review of environmental performance of original project.** The original project is in compliance with ADB's eligibility criteria for additional financing. The original project was classified as category B for environment. Initial environmental examinations (IEEs) for those components classifying as category B have been carried out and disclosed on the project website in 2010. The original project's compliance with the approved IEEs is satisfactory. This was confirmed by an external environment monitor (EEM) that was engaged to conduct independent EMP compliance monitoring and verification in September to December 2014. Environmental monitoring reports were submitted to ADB and disclosed on the project website (latest report submitted in December 2014). A PMU was established within the executing agency (MCUD) in December 2010 and is fully staffed and functional. PIUs were established in each of the participating *aimags* in June/July 2011. A national environmental specialist (8-person months) was recruited in June 2011 to support PMU and PIUs in coordinating and supervising implementation of environmental management plans (EMPs). The consultant (a) prepared the annual detailed environmental evaluation (DEE) for Mongolian environmental authorities; (b) assisted the preparation of bidding documents for the detailed EIAs, and (c) reviewed the detailed EIAs of 6 projects. Furthermore, the specialist worked on the updating of these detailed EIAs and EMPs for every sub-project during the engineering detailed design stage and verified that environmental issues were incorporated in the project design.

67. **Environment safeguards due diligence of additional financing project.** The original

project and the additional financing project are classified as category B for environment by the ADB. For the additional financing project components, an IEE and an EMP were prepared by the TA consultant on behalf of MCUD. Domestically, the additional financing project components were subject to general environmental impact assessment (GEIAs) by the Ministry of Environment, Green Development and Tourism (MEGDT). The GEIA conclusions have required the preparation of four detailed EIAs (DEIAs) for each *aimag* center. The detailed environmental impact assessments (DEIA) were prepared by two licensed EIA institutes (Undurkhaan Trade LLC, Environ LLC), and were approved before end of December 2015. Key parts of the DEIAs (including environment baseline, public consultation and environment mitigation measures) have been incorporated into the IEE and the EMP. The EMP is in Attachment 1 of the IEE.

68. **Anticipated environmental benefits and impacts.** The additional financing project will have substantial environmental and socioeconomic benefits. The cumulative wastewater treatment capacity of 13,200 m<sup>3</sup>/day will remove significant amounts of pollutants, including BOD (920 tons per year, 2030 projections); ammonia nitrogen (110 tons per year); and phosphorous (28 tons per year). Findings of the IEE and the DEIAs show that the project does not have any predicted significant, long term or irreversible environmental impacts. Short-term impacts are anticipated during construction, including dust, noise and waste generated during earthwork and civil works activities, as well as minor community and occupational health and safety risks. These can be mitigated to an acceptable level through mitigation measures defined in the EMP, which relate primarily to implementing good construction practice as well as meeting the particular needs of the project areas through consultation with affected people.

69. During operation, no significant adverse environmental impact is anticipated. Comprehensive training to PUSO staff (under Output 2) and appropriate technological design will contribute significantly to reducing operational risks of the sub-components. Prior to commissioning of the WWTPs, a series of tests will be conducted to ensure proper functioning of the WWTPs and ability to achieve Mongolian discharge standard. A wastewater quality monitoring system for key parameters (biological oxygen demand (BOD), total phosphorus (TP), ammonium (NH<sub>4</sub>-N)) will be introduced at each WWTP. Daily check, repair and maintenance procedures will be instituted for all wastewater treatment facilities/equipment. WWTP sludge will be dewatered through filter press, and disposed of onsite in sludge drying beds. Options for beneficial sludge reuse will be investigated during project implementation.<sup>32</sup> Effluent polishing will be carried out in oxidation (waste stabilization) ponds providing both additional treatment and storage in the case of reuse. The ponds also serve as an emergency retention and treatment system in the event of plant malfunction. No WWTP effluent will be discharged to nearby surface water bodies (Ongi River in Arvaikheer; Urd Tamir River in Tsetserleg). Emergency preparedness and response plans will be formulated and put in place before the WWTPs become operational.

70. **EMP implementation responsibilities.** The EMP specifies the roles and responsibilities of key project stakeholders (including MCUD, the PMU, the PUSOs, MEGDT, State Professional Inspection Agency, contractors and PMIS) in overall environmental management.

- (i) MCUD as executing agency has the overall responsibility for compliance with safeguards plans. The existing PMU established for the Grant 0204 project under MCUD will manage the AF components, including but not limited to: (a) coordinating the tendering process including overseeing incorporation of EMP

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<sup>32</sup> Attached Technical Assistance (accessible from the list of linked documents in Appendix 2 of the main text).

clauses into the bidding documents; (b) ensuring the procurement of environmentally responsible contractors; (c) ensuring that DEIA approvals by MEGDT have been secured prior to the awarding of civil works contracts; (d) supervising project construction (with support of PMIS resident engineers); and (e) reporting to ADB.

- (ii) The PMU will procure the services of additional project management and implementation support (PMIS) consultants including one international and one national environment consultants (LIEC) under Output 2 to provide support in (a) training on EMP supervision to PUSOs and contractors; (b) setting up environmental management and internal monitoring systems at PUSO and civil works contracts level; (c) review tender and contractor documents to ensure all required environmental specifications have been included, update as required; (d) prepare environmental supervision checklists for monthly supervision of the EMP by the PUSO Support Group, and review contractor-EMPs to confirm compliance with the project EMP; (e) establishing grievance redress mechanisms (GRMs) and providing training; (f) regular EMP and environmental quality monitoring in compliance with the monitoring plan; (g) coordinate public consultation prior to and during construction, and at project completion stage; (h) preparing annual EMP progress reports to ADB; and (i) identifying environment-related implementation issues and necessary corrective actions.
- (iii) Each PUSO will establish a PUSO Support Group to handle the day-to-day activities under the AF project. Under the guidance of the PMIS (resident engineers and the LIEC), the PUSO Support Groups will be responsible for the local supervision of EMP implementation, including (a) setting up and coordinating the local grievance redress mechanism (GRM, see below); (b) monitoring contractors to ensure adherence to the project EMP and the contractor EMPs; (iii) preparing quarterly reports on project EMP implementation to the PMU; and (iv) coordinating consultation with local stakeholders as required, informing them of imminent construction works, updating them on the latest project development activities, GRM, etc.; as defined in the monitoring program.
- (iv) Civil works contractors will be required to formulate contractor EMPs (or site EMPs) with complete management systems for adverse impacts, e.g., dust control, noise control, access control and temporary traffic management, addressing as a minimum the requirements of the EMP and the relevant DEIA. The contractor EMPs will be renewed on a yearly basis, submitted to the PUSO Support Group for review, and to *aimag* environment protection authorities for approval. The bid documents for civil works contracts and contract documents shall include (a) the updated IEE, EMP and relevant DEIA as attachments; (b) provision requiring them to operationalize EMP before implementation by developing detailed management plans or site-specific management plans, as necessary; (c) appropriate clauses to ensure EMPs are implemented during construction; (d) environmental conditions to be met for preliminary or final acceptance, during which the contractor's responsibility is partially/fully released, such measures that contractors shall properly dispose the surplus construction materials and solid wastes and conduct general site clean-up including of construction camps, rehabilitate borrow pits and quarry sites, as applicable; (e) penalties to be incurred by contractors for major default in the implementation of

EMP; (f) information on their track records; and (g) appropriate provisions that their environmental performance will be evaluated.

- (v) The PMU will also procure the services of an independent environment monitor (IEM). The IEM will conduct independent EMP implementation verification and environment quality monitoring during project construction. The IEM will (i) conduct site visits to each construction site (4 *aimags*) during the construction period to assess the project's compliance with the project EMP and the domestic EIAs; (ii) conduct environment quality monitoring covering air quality, noise, construction wastewater quality at each construction site in compliance with the monitoring plan; (iii) assess the contractors', PUSOs', PMIS, and PMU's compliance with their respective EMP implementation responsibilities as defined in the PAM; and (iv) prepare independent EMP monitoring reports for the PMU. The reports should highlight good practices, identify problems encountered, and define recommendations for actions to be taken to resolve problems or improve environment management performance of various stakeholders.

71. **Environmental grievances redress mechanism.** Environment safeguards related complaints or disputes will be handled in accordance with grievance redress mechanisms (GRM) established for each project city, coordinated by the PUSO Support Groups in consultation with the PMU and under the guidance of the LIEC. The GRM is defined in the EMP.

## **B. Involuntary Resettlement**

72. The original project was classified as category B for involuntary resettlement. The original project's compliance with the approved land acquisition and resettlement plan (LARP) is satisfactory. This was confirmed by the social monitoring report which was disclosed on the ADB website in October 2014. The proposed additional financing complements activities being carried out under the Southeast Gobi Urban and Border Towns Development Project (SGUBTDP: G-0204) with further wastewater management interventions being developed for the *aimag* centers of Dalanzadgad (in Umnugovi) and Sanishand (in Dornogovi). In addition, project preparation activities are being extended to the additional *aimag* centers of Arvaikheer (in Uvurkhangai) and Arkhangai (Tsetserleg). The current sub-project is classified as category C as the additional financing will not cause any direct or indirect, permanent or temporary LAR impacts as the construction of the WWTPs and sewer main lines will be done on the state owned vacant land. The only issue is in Arkhangai soum where there is an access issue during the construction period for the block plant of "Kasu Mandal" LLC located in the buffer zone of the WWTP. The issue is resolved as the *aimag* government has agreed to provide a new access from the west side. Therefore, no any LAR impact is anticipated and IR safeguard will not be triggered. This has been confirmed by PPTA due diligence.

## **C. Indigenous Peoples**

73. The categorization for indigenous peoples is "C". The project will be implemented in the peri-urban areas where no specific communities of ethnic minorities or groups are living, so there will be no impacts. No adverse impacts are expected. Therefore, the ADB Policy on Indigenous Peoples will not be triggered by this project.

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

74. A social, poverty, and gender analysis was undertaken in accordance with ADB

guidelines. The poverty and social assessment during project preparation included a desk review of secondary data, a household survey and focus group discussions, and key informant interviews. The collected information and analysis are to assist the design of the project by identifying the poor and economically vulnerable population, examining causes of poverty and recommending poverty reduction measures within the scope of the project.

### **A. Social and Poverty Benefits**

75. The poverty headcount national average is 21.6% in 2014. The poverty level is much higher in rural areas (27%) than the urban (18%). However, poverty reduction was slower in urban areas. Therefore, the urban areas continue to have the largest share of the poor in Mongolia. The project *aimags*, with an aggregate urban population of about 98,000 represent examples of rapidly growing second tier cities and together make up some 5% of national urban population. Of the project *aimags*, two (Umnugovi/Dalanzadgad and Dornogovi/ Sainshand) have shown above average increases in population and share of the GDP, while in the remaining two (Arkhangai/ Tsetserleg and Uvurkhantai/Arvaikheer) population and GDP have shown growth rates at or above the national average outside Ulaanbaatar. In 2011, among the four cities Tsetserleg (37.9%) and Arvaikheer (41.1%) experienced higher poverty (above the urban average which was 28.7%) than the Sainshand (15.9%) and Dalanzadgad (11.9%). Poverty in these cities is determined by high unemployment rate due to migration from other *aimags*, expansion of *ger* areas and decline of living conditions among city residents. Lack of quality wastewater sanitation services result in poor and unsanitary living conditions in the project cities and limited interest in economic investment in the area because of underdeveloped conditions. According to the poverty and social analysis data the current situation of sanitation services has negative impact on both households and businesses. Inefficient operation of the sanitation services increase the probability of water-borne diseases and households' health related expenditure. In total, 94,295 urban residents will benefit from the project intervention in four cities of Arkhangai, Dornogovi, Umnugovi and Uvurkhantai *aimags*. Direct beneficiaries of the project are the households in the apartment areas (6,245 households) and 844 public and private entities working in these cities that are connected to sewers. The project will improve sanitation and wastewater treatment conditions, and create short-term employment opportunities during the project construction and operations. Employment targets for vulnerable groups and women are included in the social and gender action plan (SGAP).

### **B. Gender**

76. The current project was classified as effective gender mainstreaming. The original project gender action plan is still ongoing with about 50.0% completed activities and 67.0% achieved targets. The additional financing project is classified as some gender elements. The reason for downgrading the categorization is the change of the technical and geographic scope of the additional financing. The additional financing will focus only on improving the quality and reliability of wastewater management services in the two *aimag* centers included under the existing project, and by extending these service improvements to two additional *aimag* centers in other regions of the country. Therefore, the sub-project is unlikely to satisfy the threshold for EGM, and a combined SGAP has been developed.

57. The SGAP, (see Table 4), will facilitate continued consultation and participation of the local communities during the project implementation to ensure that: (i) people are informed about the project benefits and aware of water and wastewater sanitation issues; (ii) people are informed about possible tariff increase and participate in the public hearings and consultation

processes, (iii) labor rights and entitlements are observed, and that the needs of vulnerable households are considered. SGAP implementation will be monitored through the project performance management system (PPMS), project progress reports, and ADB supervision missions. Implementation and monitoring of SGAP is included in loan assurances.

77. The project will ensure that: (i) priority will be given to women for employment, including a 30% target for project employment opportunities during the project construction operation phase; (ii) women will be participating in the public awareness, consultation and public hearings (at least 30%) and capacity building activities (about 35%). The PMU with the assistance of the PIUs and project management and implementation consulting firm are responsible for the implementation of the SGAP, and reporting on progress and achievements of the project. All activities in SGAP are part of the capacity building component (e.g., training, consultation, awareness raising activities). Therefore, no additional cost is required specifically for the implementation of SGAP. PIUs together with the PUSOs are responsible for the implementation of the SGAP. The detailed SGAP is provided in Table 4. The PMU and PIUs will monitor contractors' compliance with these project assurances.

### **C. Other Social Aspects**

78. **Communicable diseases.** As ensured in the assurances, construction workers from the local communities will be trained on the prevention and control of transmissible diseases and HIV/AIDS through public health and sanitation knowledge campaigns and training, and capacity building will be undertaken to protect their legal labor rights.

79. **Labor issues.** Core labor standards will be implemented. Civil works contracts will stipulate priorities to (i) employ local people for works; (ii) ensure equal opportunities for women and men; (iii) pay equal wages for work of equal value; (iv) pay women's wages directly to them; (v) not employ children or forced labor; and (vi) ensure that all contracted labor have written contracts. Specific targets for employment have been included in the SGAP.

80. Under the project management consulting service, a social development specialist will be engaged to support the PIUs to implement, monitor, and report on progress of the SGAP and other social aspects. The SGAP will be monitored semiannually and reported via quarterly progress reports.

**Table 4: Social and Gender Action Plan**

<b>Activity</b>	<b>Target and Indicators</b>	<b>Responsibility Party</b>	<b>Budget and Cost</b>	<b>Timing</b>
<b>A. Generating job opportunities to increase residents' income</b>				
Employment during project construction with a total of 200 positions.	At least 30% female laborers in construction and operation.	PMU, PIUs and Contractors	Included in project civil work cost	2016–2018
Ensure employment priority to local people in construction contracts with contractors.	At least 15% poor for unskilled jobs in construction and operation.			
Ensure training on labor law, job skills, safety, sanitation, HIV/AIDS to be provided by contractors.	100% contracted laborers get training.			
<b>B. Establishing a Public Consultation and Participation Mechanism</b>				
Awareness campaign on improved public services.	At least 30% of participants in public meetings on project design and construction activities are women	PMU, PIUs and PUSOs	Included in the project cost	2016-2018
Wastewater sanitation public awareness among residents and industries.	Number of campaigns, consultations and workshops (40% residents and 30% industries)			
Consultations and public hearing for wastewater treatment tariff.	Number of consultations and public hearings held (30% of participants are women)			
Strengthening urban planning and policy making, including master plans for participating towns .	At least 30% of participants in consultative workshops are women.			
Capacity on project management, strategic planning, and accounting systems increased.	At least 100 PUSO and local government staff with new knowledge and skills on waste water operations and management by 2020, of which 35% are women.			

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

### A. REVISED DESIGN AND MONITORING FRAMEWORK

<b>Impact the Project is Aligned with</b>			
<p><b>Current Project</b> Economic development and livability in <i>aimag centers</i> (mining and border towns in Southeast Gobi) enhanced (Infrastructure Plans for the Southern Gobi and Government Action Plan 2012–2016<sup>a</sup>)</p> <p><b>Overall Project</b> Unchanged</p>			
<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines<sup>b</sup></b>	<b>Data Sources and Reporting</b>	<b>Risks</b>
<p><b>Outcome</b></p> <p><b>Current project</b></p> <p>Improved urban governance and expanded access to sustainable infrastructure and services in urban places in Southeast Gobi</p> <p><b>Overall project</b></p> <p>Unchanged</p>	<p><b>Current project</b></p> <p>By September 2015:</p> <p>a. Water, sewerage, SWM, and heating coverage in planned (non-<i>ger</i>) areas increased from 0% to 95% in <i>soums</i>, and from 95% to 100% in <i>aimag centers</i></p> <p>b. <i>Ger</i> area population with access to water kiosks within 300 meters of dwelling increased to 95% (2010 baseline: 20%)</p> <p>c. Revenues of service operators increased from 95% to 100% of recurrent costs</p> <p>d. 20% reduction in average time women spend on accessing drinking water (2011 baseline: 17.8 minutes)</p> <p><b>Overall project</b></p> <p>a. New water, sewerage, SWM, and heating use in planned (non-<i>ger</i>) areas increased to 95% in <i>soums</i> and to 100% in 4 <i>aimag centers</i> by 2016. (2010 baseline: <i>soums</i> 0%, 4 <i>aimags</i> 95%)</p> <p>b. At least 9,000 m<sup>3</sup>/day of fully treated wastewater discharged in 4 <i>aimags</i> (2015 baseline: 0 m<sup>3</sup>/day)</p>	<p>a. Annual National Statistical Office yearbook, national government, annual statistics yearbook of local governments, <i>aimag</i> governments</p> <p>b. Annual statistics yearbook of local governments, <i>aimag</i> governments</p> <p>c. Annual audited financial statements of PUSOs</p> <p>d. Annual household survey, PUSOs annual progress reports</p>	<p>Operational related funds from local governments are not available in timely manner</p>

Results Chain	Performance Indicators with Targets and Baselines <sup>b</sup>	Data Sources and Reporting	Risks
	<p>c. At least 3 of 4 PUSOs with annual revenues greater than expenses (2014 baseline: 1)</p> <p>d. At least 90% of new infrastructure projects started in 2016–2020 follow approved urban master plans in <i>soums</i> and <i>aimag centers</i> (2014 baseline: not applicable)</p>		
<p><b>Outputs Part A</b></p> <p><b>Output 1</b> <b>Current project</b> Infrastructure services reforms, including performance-based contracts for urban services delivery, implemented</p> <p><b>Overall project</b> Unchanged</p> <p><b>Output 2</b> <b>Current project</b> Urban planning and policy making, including master plans for participating towns, strengthened</p> <p><b>Overall project</b> Unchanged</p> <p><b>Output 3</b> <b>Current project</b> Cross-border cooperation established</p> <p><b>Overall project</b></p>	<p>1. <b>Current project</b> Operating management contracts for provision of basic services in place and operational in both project <i>aimags</i> by November 2014 (2010 baseline: 0)</p> <p><b>Overall project</b> Unchanged</p> <p>2a. <b>Current project</b> 4 urban plans prepared and adopted by the participating <i>aimag</i> and <i>soum</i> governments by November 2014 (2010 baseline:1)</p> <p><b>Overall project</b> Completed</p> <p>2b. <b>Current project</b> At least 30% of participants in consultative workshops are women (2010 baseline: not applicable)</p> <p><b>Overall project</b> Completed</p> <p>3. <b>Current project</b> Zamiin-Uud–Erlia Joint Border Development Commission established with urban development working group (2010 baseline: not established)</p> <p><b>Overall project</b></p>	<p>1–3. Quarterly project progress reports of PMU</p> <p>2b. Annual gender action plan implementation report, PMU</p>	<p>Lack of government support for reforms, regional cooperation, and institutional strengthening</p> <p>Political interference with project implementation</p>

Results Chain	Performance Indicators with Targets and Baselines <sup>b</sup>	Data Sources and Reporting	Risks
<p>Unchanged</p> <p><b>Part B</b></p> <p><b>Output 4</b> <b>Current project</b> Water source development, transmission, storage and distribution completed</p> <p><b>Overall project</b> Unchanged</p> <p><b>Output 5</b> <b>Current project</b> Wastewater collection infrastructure constructed and operationalized</p> <p><b>Overall project</b> Unchanged</p>	<p>Completed</p> <p>Current project target for 4–9: by September 2015</p> <p>4a. <b>Current project</b> At least 38 km of transmission and distribution water main installed (2010 baseline:0)</p> <p><b>Overall project</b> Completed</p> <p>4b. <b>Current project</b> 11 water kiosks constructed and operational in <i>ger</i> areas (2010 baseline: 0)</p> <p><b>Overall project</b> Completed</p> <p>4c. <b>Current project</b> 3 water reservoirs constructed (2010 baseline: 0)</p> <p><b>Overall project</b> Completed</p> <p>5a. <b>Current project</b> At least 28 km of sewers installed and operational (2010 and 2015 baselines: 0)</p> <p><b>Overall project</b> At least 30 km of sewers installed and operational by 2020 (2010 baseline 2010: 0; 2015 baseline: 28)</p> <p>5b. <b>Current project</b> 2 wastewater treatment plants constructed and operational (2010 and 2015 baselines: 0)</p> <p><b>Overall project</b> 2 WWTPs constructed (total capacity 800 m<sup>3</sup>/day) and operational by 2016, and three 3,000 m<sup>3</sup> and one</p>	<p>4–10. Annual National Statistical Office yearbook, national government, quarterly project progress reports of PMU</p>	

Results Chain	Performance Indicators with Targets and Baselines <sup>b</sup>	Data Sources and Reporting	Risks
<p><b>Output 6</b> <b>Current project</b> District heating infrastructure constructed and operationalized</p> <p><b>Overall project</b> Unchanged</p> <p><b>Output 7</b> <b>Current project</b> Surfaced central roads constructed</p> <p><b>Overall project</b> Unchanged</p> <p><b>Output 8</b> <b>Current project</b> Solid-waste collection and disposal enhanced</p> <p><b>Overall project</b> Unchanged</p>	<p>4,200 m<sup>3</sup> plants by 2020 (2010 and 2015 baselines: 0)</p> <p>6a. <b>Current project</b> 8.4 MW heating boilers supplied, installed, and operational (2010 baseline: 0)</p> <p><b>Overall project</b> Unchanged and/or completed</p> <p>6b. <b>Current project</b> At least 8 km of heating pipeline supplied, installed, and operational</p> <p><b>Overall project</b> Unchanged and/or completed</p> <p>6c. <b>Current project</b> 3 heat distribution centers installed and operational</p> <p><b>Overall project</b> Unchanged and/or completed</p> <p>7. <b>Current project</b> About 9 km of concrete access roads constructed (2010 baseline: 0)</p> <p><b>Overall project</b> Unchanged and/or completed</p> <p>8a. <b>Current project</b> 2 solid-waste landfill site constructed and operational (2010 baseline: 0)</p> <p><b>Overall project</b> Unchanged and/or completed</p> <p>8b. <b>Current project</b> 12 sets of tractors and trailers for solid waste collection supplied and</p>		

Results Chain	Performance Indicators with Targets and Baselines <sup>b</sup>	Data Sources and Reporting	Risks
<p><b>Output 9</b>  <b>Current project</b>  Storm water drainage infrastructure constructed and operationalized</p> <p><b>Overall project</b>  Unchanged</p> <p><b>Output 10</b>  <b>Overall project</b>  Capacity on project management, strategic planning, and accounting systems increased</p>	<p>operational by May 2014 (2010 baseline: 0)</p> <p><b>Overall project</b>  Unchanged and/or completed</p> <p>9a.  <b>Current project</b>  At least 2 km of storm water drainage line installed and operational (2010 baseline: 0)</p> <p><b>Overall project</b>  Unchanged and/or completed</p> <p>9b.  <b>Current project</b>  At least 30% of participants in public meetings on project design and construction activities are women (2010 baseline: 0)</p> <p><b>Overall project</b>  Unchanged and/or completed</p> <p>10.  <b>Overall project</b>  At least 100 PUSO and local government staff with new knowledge and skills on waste water operations and management by 2020, of which 35% are women (2010 baseline: not applicable)</p>		

**Key Activities with Milestones****Outputs 1–3**

1. Establish and staff the PMU, PIUs, PSC, and *aimag* working groups (Q1 2011)
2. Establish all working arrangements, procedures, and responsibilities for the project (Q1 2011)
3. Tender, award, and engage consultants to implement planning reforms and structure plan preparation (Q3 2012)
4. Urban plans prepared for all project towns (Q2 2014)
5. Tender, award, and engage consultants to support the development of enhanced regulatory and institutional arrangements for service delivery (Q3 2012, Q4 2016)
6. Establish and make operational a service delivery organization, and prepare rolling annual business and investment plans (Q4 2014)

**Outputs 4–10**

1. Tender advisory consultancy assistance for the preparation of reference designs and management of D&B contracting (Q2 2012)
2. Complete reference designs and prepare D&B and operating management contract documents (Q3 2012)
3. Tender D&B and operating management contract; select preferred tender; and negotiate, prepare, and agree contract (OMC: Q4 2014)
4. Establish service provider and commence the implementation of priority infrastructure improvements (Q4 2014)
5. Implement construction and rehabilitation priority infrastructure improvements and new wastewater treatment plants (Q2 2013–Q3 2019)
6. Implement the social and gender action plan (throughout project implementation)

**Inputs**

	<b>ADB ADF</b>	<b>Cofinancier</b>	<b>Government</b>
		<b>TA Grant</b>	
Current Project	\$15.00 million	\$0.00 million	\$6.87 million
Additional Project	\$19.43 million	\$1.00 million	\$1.74 million
Overall	\$34.43 million	\$1.00 million	\$8.61 million

**Assumptions for Partner Financing**

Not applicable.

ADB = Asian Development Bank, D&B = design and build, km = kilometer, OMC = operating management contract, PIU = project implementation unit, PMU = project management unit, PSC = project steering committee, PUSO = public utility service organization, Q = quarter, SWM = solid waste management.

<sup>a</sup> Plots in *ger* areas served by water kiosks and other communal services. Urban governance refers to local government land use planning and allocation to achieve effective spatial development of urban areas, oversight of basic urban services provision, and accountability for carrying out these functions. An *aimag* is a provincial administrative unit in Mongolia, a *ger* is a traditional felt tent, and a *soum* is an administrative subunit of an *aimag*.

<sup>b</sup> The indicators/targets in the DMF differ from the ones in the RRP of the current project approved in 2010. Through a retrofitting exercise in 2011, COSO allowed changes to be undertaken to DMFs. In this particular case, the indicative indicators/targets used in the DMF of the RRP of 2010 were therefore updated to reflect figures from detailed designs finalized a few months after the approval of the RRP.

Source: Asian Development Bank.

## B. Monitoring

81. **Project performance monitoring.** PPMS has already been established and implemented under the current project. The design and monitoring framework (DMF) of the ongoing project has been updated based on the revised design and implementation arrangements for the additional financing project. Throughout the additional financing project implementation the PPMS, through the project performance report, will track the achievement of outputs and the actual or likelihood of expected outcome achievement. Key milestone dates for activities will also form part of the monitoring. The DMF will be reviewed during project implementation and will be updated as appropriate to reflect changes in the additional financing project and its context. After physical completion the DMF will form the basis of assessment, captured in the Project Completion Report (PCR).

82. Indicators for the additional financing project principally focus on the discharge of fully treated wastewater. The WWTPs are staggered in terms on construction commencement, however, it is anticipated that all plants will be fully in operation by 2020. The cubic meters treated per day will be established by averaging the total quantity treated over the last 30 day period, unless another timeframe is more appropriate. Fully treated waste water will be determined by measuring levels of biological oxygen demand, nitrogen, and phosphorous, for compliance with the government of Mongolia's national effluent standard for waste water treatment plants.

83. The other pertinent outcome indicator for the additional financing project, the cost recovery of service operators, will be measured through the audited accounts of the four PUSOs, comparing revenues and costs. An updated indicator from the original project, measuring improved governance in urban planning, will measure the congruence between new infrastructure projects commenced between 2016 and 2020 and the newly approved urban masterplans in project *soums* and *aimag* centers. Documents from the approval authorities for the relevant infrastructure projects will be cross-referenced to the urban masterplan of the relevant *soum* or *aimag*. Construction outputs of sewage lines and WWTPs will be monitored through the supervision consultants and the PUSO supervising engineer.

84. For ongoing monitoring ADB and the government will jointly review the implementation of the project once a year, covering a detailed assessment of the scope, implementation arrangements, institutional, administrative, technical, economic, and financial aspects of the project, achievement of scheduled targets, and other relevant dimensions that could have an effect on the performance of the project. The review will examine the implementation progress and compliance with assurances in the loan agreement. Feedback from PPMS data and information will be analyzed accordingly.

85. **Environmental safeguards monitoring.** The government and MCUD will ensure that laws and regulations of Mongolia governing safeguards, as well as ADB's SPS (2009) are followed. The MCUD will ensure that all works contracts under the Project incorporate provisions and budgets for safeguards plans implementation and monitoring. Monitoring will include the following:

- (i) **Internal monitoring/supervision and reporting by PUSO Support Group.** During construction, the PUSO Support Groups will be responsible for conducting internal environmental monitoring (consisting mainly of visual site inspection) in accordance with the monitoring plan defined in the EMP. The groups will be supported the resident engineers and the LIEC of the PMIS.

Supervision results will be reported through the resident engineers' quarterly reports to the PMU.

- (ii) **EMP compliance monitoring and reporting by PMU (through PMIS).** The PMU (with support of the PMIS) will contract certified environmental firm(s) to conduct periodic environmental quality monitoring in accordance with the monitoring program. These firms will submit two monitoring reports per construction season to the PMU as well as the *aimag* environmental authorities. The results of project EMP implementation and environmental impact monitoring will be communicated to ADB through the annual project EMP progress reports, developed by the LIEC on behalf of MCUD. The reports will be disclosed on the ADB website, and submitted to MEGDT.
- (iii) **Social and Gender dimensions monitoring.** Monitoring of the SGAP will be incorporated into the PPMS. Clear targets and indicators have been established (refer to Section VIII) and some indicators, such as those on participation in public meetings and capacity building, are also captured in the DMF. Assistance will be provided for the executing and implementing agencies by the social development consultant who will help to set up effective monitoring systems and work with the focal points in the executing and implementing agencies to ensure implementation of the SGAP and collection of sex-disaggregated data, where necessary. The SGAP will be monitored semiannually and reported via the quarterly project progress reports.

### C. Review and Evaluation

86. ADB and the government will jointly review the implementation of the project once a year, covering a detailed evaluation of the scope, implementation arrangements, institutional, administrative, technical, economic, financial, achievement of scheduled targets, and other relevant aspects that may have an impact on the performance of the project. The review will examine the implementation progress and compliance with assurances in the loan agreement. Feedback from the PPMS activities will be analyzed. Within 6 months of physical completion of the Project MCUD will submit a project completion report to ADB.<sup>33</sup>

87. To ensure that the project continues to be both viable and sustainable, project accounts and the executing agency audited financial statements, together with the associated auditor's report, will be thoroughly reviewed. A mid-term review (MTR) of the additional financing project will be carried out in mid-2018 by ADB and the government of the additional financing project period. The MTR will assess implementation status and take appropriate measures—including modification of scope and implementation arrangements, and reallocation of loan proceeds, as appropriate—to achieve the project's outputs and outcome. The MTR will provide an opportunity to update the DMF as required.

88. A final review mission will take place within the 6 months after physical completion of the project. The ADB mission will (i) assess project performance against targets and benchmarks including any revision(s) as agreed during the midterm review; (ii) identify any incomplete activities, or unused project funds; and (iii) determine the project satisfaction rating. MCUD will

<sup>33</sup> Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

submit a project completion report to ADB within 6 months of physical completion.<sup>34</sup> The MCUD PCR will contain an assessment of the achievement of outputs and the outcome, focusing on indicator targets. In case the project is selected for a project performance evaluation, the project will be subject to more detailed performance evaluation approximately 3 or more years after completion.

## D. Reporting

89. As per Table 5, the MCUD will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including (iii) progress achieved by output as measured through the progress against the performance targets of DMF indicators, (iv) key implementation issues and solutions; (v) updated procurement plan and (vi) updated implementation plan for next 12 months; (iii) stand-alone annual environment monitoring reports; and (vii) a project completion report within 6 months of physical completion of the Project.

**Table 5: Reporting Requirements**

Report	Reference	Frequency and Timing
<b>Project Performance Reporting</b>		
Project performance management system reports (PPMS)	LA, PA, PPMS including baseline and progress data	Reconfirmed no later than 3 months after loan effectiveness; used for all monitoring reports
<b>Progress Reporting</b>		
Quarterly progress reports	LA, PA, PPMS	Quarterly, within one month after the end of each quarter
<b>Financial Performance Reporting</b>		
Audited project accounts and financial statements auditor's report	LA, PA, PPMS, incl. auditor's opinion on use of imprest fund and statement of expenditures	Not later than 6 months after the closure of fiscal year (30 June)
<b>Environmental Safeguards Reporting</b>		
Environmental compliance monitoring reports by licensed monitoring institutes/laboratories	IEE, DEIA	Twice per construction season until project completion report is issued.
Annual EMP progress reports	LA, PPMS, EMP, Mongolian Law on EIA	Annual, until project completion report is issued.
<b>Social Reporting (other)</b>		
Social and gender action plan implementation report	LA, PA, PPMS, SAP	Included quarterly project progress reports.
<b>Project Completion Reporting</b>		
Project completion report	LA, PA, PPMS, RRP, all above reports, review mission MOUs, statistics and surveys	No later than 6 months after project completion.

DEIA = Detailed Environmental Impact Assessments, EIA = Environmental Impact Assessment, IEE = Initial Environment Examination, LA = loan agreement, MOU = memorandum of agreement, PA = project agreement, PPMS = project performance management system, RRP= Report and Recommendation of the President to Board of Directors, SAP =social action plan

## E. Stakeholder Communication Strategy

90. **Environment.** The stakeholder consultation process conducted during the development of the IEE and the DEIAs, demonstrated that all sub-components under the additional project have strong local support. In compliance with ADB's SPS (2009), environmental information

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

related to the project was and/or will be disclosed to affected people as follows: (i) this IEE is disclosed on January 2016 and available on ADB's project website<sup>35</sup> ([www.adb.org](http://www.adb.org)), and is available for consultation in the PUSOs' and PMU's offices; (ii) the DEIAs will be approved and disclosed by MEGDT; and (iii) annual reports on project's compliance with the EMP as well as the Project Completion Report will be available at [www.adb.org](http://www.adb.org). During project implementation, affected people will be consulted and informed through formal questionnaire surveys, site visits and informal interviews by the PUSO Support Group and the LIEC. Public meetings will be organized by the PUSO Support Group prior to mid-term mission to present and discuss EMP implementation progress, solicit community opinions and concerns, and agree on required corrective actions. The LIEC will, prior to project completion report (PCR) mission, organize a survey to assess community satisfaction with project implementation, additional financing project outputs, and EMP implementation performance. The results will be documented in the PCR.

91. **Social and gender action plan.** Consultations with communities have taken place and will continue at different points in the preparation and implementation of the SGAP within the components, and will be designed not only to inform people about the component or specific activities related to its preparation and implementation, but also to enable people in the community to ask questions, make suggestions, state preferences, and express concerns. Special attention will be paid to the participation of women, ethnic minorities and any other vulnerable groups, such as the poor. SGAP indicators will be monitored and reported semiannually and disclosed to local communities.

## X. ANTICORRUPTION POLICY

92. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the Project.<sup>36</sup> All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all Project contractors, suppliers, consultants and other service providers. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the Project.<sup>37</sup>

93. To support these efforts, relevant provisions are included in the loan agreement and the bidding documents for the Project. In particular, all contracts financed by ADB in connection with the Project shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing and implementing agencies and all contractors, suppliers, consultants, and other service providers as they relate to the Project. In relation to the Project, the executing and implementing agencies will ensure that (i) a supervisory body is established for prevention of undue interference in business practices, and adequate resources are made available for its effective operation; (ii) a leading group of officials from the supervision division of the executing and implementing agencies is located in offices involved in bidding, installation, and other operational activities under the Project; and (iii) periodic inspections on the contractor's activities related to fund withdrawals and settlements are carried out. The executing and implementing agencies shall also initiate liaison meetings with the Prosecutor's Office, as needed, to discuss any warnings about, or information on, alleged corrupt, fraudulent, collusive, or coercive practices relating to the investment program.

<sup>35</sup> Available at: <http://www.adb.org/projects/documents/mon-se-gobi-urban-and-border-town-development-project-af-jan-2016-iee>.

<sup>36</sup> Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>.

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

94. The executing and implementing agencies will disclose to the public, and update annually the current status of the Project and how the proceeds of the Project are used. For each contract financed under the Project, the executing and implementing agencies will disclose on their respective websites information on, among others, the (i) list of participating bidders; (ii) name of the winning bidder; (iii) basic details on bidding procedures and procurement methods adopted; (iv) amount of contract awarded; (v) list of goods/services, including consulting services procured; and (vi) intended and actual utilization of the facility proceeds.

## **XI. ACCOUNTABILITY MECHANISM**

95. 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>38</sup>

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

96. All revisions/updates during course of implementation are retained in this Section to provide a chronological history of changes to implemented arrangements recorded in the PAM.

<b>No.</b>	<b>PAM changes/updates</b>	<b>Date</b>	<b>Remarks</b>
1	Initial Draft	16 March 2016	First draft reviewed with all stakeholders and updated accordingly during Loan Negotiations

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

## Consultants Terms of Reference (TOR)

### A. Project Management and Implementation Support (PMIS)

1. **Overall inputs and scope of work.** Execution and implementation of the project will require an estimated 118 person-months (16 international, and 102 national) of consulting services. The services are to provide support to contract document preparation, and project management, implementation and monitoring support, and on-the-job capacity development. Expertise is required in the following fields: (i) Wastewater treatment plant (WWTP) tendering, construction, and operation; (ii) WWTP equipment specification; (iii) engineering construction management and supervision; (iv) environmental and social development, and (iv) project monitoring and evaluation. The consultants will provide the following services: (i) preparation of plans, schedules and management and reporting arrangements for overall project execution and implementation; (ii) assistance in preparation of performance criteria and equipment specification for the WWTPs; (iii) preparation of contract documentation and related evaluation framework for the construction, supply and installation of the WWTPs; (iv) support in finalization of bid packages; (v) contracting process quality assurance; (vi) construction management and supervision support; (vii) project implementation facilitation of project design, contracting, management and implementation; and (viii) operational risk management and mitigation plan.

2. **Scope of work, Outputs and Key Activities.** The services will provide loan implementation consultancy support for tender preparation, and project management and implementation, construction supervision and quality control, progress and safeguards monitoring and reporting, support to procurement procedures and preparation of bidding documents for construction work. The services will also provide general management support as required by the project and as requested by the Project Management Unit (PMU) and public utility service organization (PUSO) project support units. An international consulting firm will be engaged in accordance with ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time). The consultants will be selected and engaged through the Quality- and Cost-based Selection (QCBS) method with a quality to cost ratio of 90:10% using the full technical proposal procedure. The consultants will work closely with the PMU and PUSO support units under the day-to-day management of the Project Coordinator. A total of 118 person-months are required of which 16 person-months are international and 102 person-months are national consultants.

3. **Project management and administration support.** The Team Leader and Deputy Team Leader, the Wastewater Treatment Equipment Specialists and Resident Wastewater Management Specialists will support Ministry of Construction and Urban Development (MCUD), PMU and PUSO units in carrying out the project execution and implementation activities to ensure smooth, timely and high quality execution and implementation of the project. The services will comprise six main activities: (i) Project management assistance to the PMU in execution of the project and reporting; (ii) Project management assistance to the PUSO units in project implementation and reporting; (iii) assistance to the PMU and PUSO units in third party quality assurance of all civil works and equipment delivery and installation activities and supervision of construction of the project; (iv) assistance in compliance with environmental and resettlement safeguards monitoring and reporting; and (v) project benefit and performance monitoring and evaluation. The PMIS consultants will assist both the PMU and PUSO units in carrying out, among others, the following tasks:

- (i) Prepare plans, schedules and management and reporting arrangements for overall project execution and implementation activities for the project;

- (ii) Establish and assist with maintaining of a project performance management system (PPMS), procedures and reporting to Government, the project Steering Committee and the Asian Development Bank (ADB) on technical, financial, economic and safeguards management implementation progress;
- (iii) Prepare annual implementation schedules with procurement activities, disbursement schedules and budgets;
- (iv) Assist the PMU in preparation of standard tender documents according to ADB and Government of Mongolia requirements, and in the formulation of associated technical specifications and tender evaluation criteria;
- (v) Assist the PMU in the tendering and evaluation process, and in the award of contract for works and equipment contracts;
- (vi) Assist PMU and PUSO units with technical guidance as required;
- (vii) Assist the PMU and PUSO units in third party supervision and quality assurance of all works and equipment installation, construction supervision checking contractors work progress, invoices against progress, progress payments etc.;
- (viii) Assist the PMU in the establishment and implementation of a system for project benefit and performance monitoring and evaluation
- (ix) Prepare quarterly, semiannual and annual progress reports and assist the PMU and PUSO unit with their reporting requirements; and
- (x) Upon project completion prepare a comprehensive project completion report according to ADB requirements and standards.

4. **Project implementation support.** The Deputy Team Leader, Wastewater Management Specialist and Resident Engineer, and the other three Wastewater Management Specialists and Resident Engineers, will support the PMU and PUSO support units in managing and supervision of construction and equipment installation contracts. The consultants will assist the PMU and PUSO support units in carrying out the following tasks:

- (i) Perform the role of Resident engineer on behalf of the owner (*Aimag* Government through the MCUD and PMU);
- (ii) Carry out supervision and quality assurance activities for all civil works and equipment installation of the project;
- (iii) Monitor and enforce provisions contained within the environmental management plan and support implementation of the grievance redress mechanism;
- (iv) Prepare quarterly progress reports for the *aimag* government, *aimag*-level technical working group, MCUD and ADB;
- (v) Work closely with and assist the PMU and PUSO support unit in all activities relating to contract management and supervision;
- (vi) Review and endorse claims from the contractors and supplying companies;
- (vii) Assist the PUSOs and the contractor for the Wastewater Treatment Plant as necessary to ensure maintaining full operation of the existing plant during all phases of construction and implementation of the project;
- (viii) Collaborate with the PMU and other project stakeholders to identify provide an assessment of and address impediments related to project implementation in terms of construction issues, equipment installation issues, quality of works, and other issues as they arise;
- (ix) Support the program of stakeholder and community consultations regarding project components;
- (x) In close coordination and cooperation with the PMU and PUSO support units, monitor and carry out quality control of all project construction, equipment delivery, installation and commissioning on a daily basis;

- (xi) Ensure effective day-to-day supervision of project implementation and consolidate monthly progress reports prepared by contractors, suppliers and consultants;
- (xii) Administer contracts of component A including processing of progress certificates, review of extension of time claims, preparation of change orders and non-conformance notices, project implementation progress monitoring, and project cost monitoring;
- (xiii) Review and endorse payments due to the consultants, contractors and suppliers to the PMU;
- (xiv) Support the preparation of withdrawal applications by the PMU and supply information and supporting documents as needed;
- (xv) Work with PMU and PUSO units in obtaining licenses, permits of construction, rights of access to land and other compulsory administrative steps as needed by the relevant regulations in force in Mongolia and in agreement with ADB procedures and oversee safeguards compliance;
- (xvi) In coordination with the PMU, review annual implementation and update implementation schedule and projection;
- (xvii) In close coordination with the PMU and the environmental specialists oversee compliance with the social and environmental loan and project agreement covenants, and the implementation of the environmental management plan and the social development plan;
- (xviii) Coordinate and facilitate public and community relations in coordination with the PUSOs;
- (xix) Ensure the implementation and practice of appropriate financial accounting and reporting and record keeping systems, compatible with the financial reporting systems by the government, and coordinate these activities with the PMU Project Coordinator;
- (xx) Review and contribute to the proposed training programs prepared by the loan implementation consultants;
- (xxi) Oversee all subproject commissioning procedures, review program completion reports and, support delivery of project completion certificates and endorse project final acceptance; as necessary recommend on release of performance bonds and warranty retention amounts;
- (xxii) Coordinate with organizations responsible for operations of the completed works to conform that operating requirements are included in the designs and that training opportunities for operations personnel are included in the design and construction processes;
- (xxiii) Provide technical input as required for the preparation of bid evaluation reports.
- (xxiv) Supervise collect and approve contractors' and consultants monthly statements and invoices assembled by the construction supervisors and forward these to the PIU Project Coordinator;
- (xxv) In close collaboration with the PMU and PUSO units review and approve the training schedules and documents proposed by the contractors and suppliers and participate actively during the delivery of such training programs;
- (xxvi) Review and approve, in collaboration with the PMU and PUSO units, the operation and maintenance (O&M) manuals prepared by contractors and suppliers; and
- (xxvii) Provide inputs to the PMU for quarterly, annual and final reports.

5. **Project procurement support.** The Wastewater Treatment Plant (WWTP) Specialists (Team Leader and Deputy Team Leader), and Wastewater Treatment Equipment Specialist,

with support from the Construction Supervision Resident Engineers will prepare procurement documentation for components under Part A of the project. This documentation will provide for the construction of the proposed WWTPs and installation of new equipment to provide a modern and efficient treatment system using Integrated Fixed-film Activated Sludge technology or equivalent. This will be procured through NCB modality using the Mongolian standard tender procedures and contract documentation for small works, as approved by ADB. The procurement documentation will be prepared in the PMU under the guidance of the MCUD and procurement will be executed by MCUD. The consultants will assist the PMU and MCUD in (i) preparation of bidding and contract documentation; (ii) preparation of specifications; (iii) design of tender process and tender evaluation criteria; (iv) management of the tender process; (iii) technical evaluation of bids; and (iv) in award of contracts. Specific tasks include but are not limited to:

- (i) Review the location of proposed works and the condition of existing infrastructure including underground utilities, infrastructure and facilities (both on- and off-site) and assist the PMU and PUSO unit in confirming the design scope and approach;
- (ii) Ensure the scope of the WWTP project is aligned with the proposal and conclusion of the project appraisal;
- (iii) Finalize performance specifications for the WWTP and prepare all contract documents required for the tender process to enable a tenderer to submit a bid and effectively construct the plant, supply and install the equipment;
- (iv) Prepare the final bid package and submit to the MCUD and ADB for approval ensuring that tender documents for NCB follow both ADB procurement guidelines and Public Procurement Law of Mongolia
- (v) Prepare and agree on tender evaluation criteria and assist the PMU in the preparation of tender administration and evaluation procedures.
- (vi) Assist the PMU in: (a) organization and conduct of pre-bid meetings; (b) responding to questions from bidders; (c) receipt of bids; (d) evaluation of bids; and (e) contract negotiations and contract award; and
- (vii) Design and agree with PMU and *aimag* PUSO support units a supervision and third party quality assurance program for the works, and assist the PMU as necessary in contractor mobilization.

**6. Preparation of an Operational Risk Mitigation Plan, and Emergency Preparedness and Response Plan for the Wastewater Management System.** The international Team Leader and national Deputy Team Leader and Wastewater Management Specialists will lead in the preparation of: (i) an operational risk mitigation procedures plan, and (ii) an emergency preparedness and response plan for the wastewater collection system and WWTP. In carrying out these tasks, the team leader and deputy team leader will be assisted as necessary by the WWTP Equipment Specialist. Specific tasks will include, but are not limited to:

- (i) Identification of potential operational risks for the wastewater collection systems and WWTPs. These will include assessment of probabilities and possible impacts from power failures, equipment failures, shock pollutant loadings, system failures, natural disasters due to extreme weather events and earthquakes;
- (ii) Based on potential risks identified, and probabilities of occurrence, prepare an operational risk management procedures plans and as well as emergency preparedness and response plan to identify advance actions and mitigation actions to be taken in the event of the occurrence of risk events. This will include a schedule of operational procedure preparatory steps and mitigation actions to be taken and related responsibilities for responding to each potential operational

- failure or emergency, and associated financial and other resource requirements. Both shall be interrelated;
- (iii) Ensure that operational and emergency plans include arrangements for safely dealing with domestic wastewaters discharged to the power station fly ash storage ponds under emergency arrangements;
  - (iv) Identify procedures to be put in place to ensure that PUSOs (or its contractor) is prepared both for normal operations and emergencies and has the necessary information and resources in place to mitigate any negative impacts from the emergency;
  - (v) Work with the WWTP contractor/supplier and PUSO to develop scenarios and ensure that: (i) the emergency preparedness plan is understood by all; and (ii) all parties are familiar with their roles and responsibilities under the plan; and
  - (vi) Provide support for carrying out capacity building and training for government wastewater treatment, operational and monitoring staff (including management, operators and chemical laboratory staff) according to their responsibilities both for normal operations and in emergency preparedness and response planning and execution.

7. **Environmental Due Diligence.** One international (5 person-months) and one national (18 person-months) environment specialist with practical experience in the implementation of EMPs and environmental monitoring will be contracted under the PMIS contract to support the implementation of the EMP and ensure the grievance redress mechanism functions effectively. The experts will perform the following tasks - but not limited to - with respect to environmental management:

- (i) Review IEE and project EMP as well as domestic detailed EIAs (DEIAs) to understand the environmental issues associated with the project area;
- (ii) Consult with PMU and PUSOs to identify if there are any changes in the project sites or baseline environmental conditions. Assess impacts of any changes and update the EMP;
- (iii) Assist the PMU in obtaining all necessary domestic environmental approvals to allow the projects to proceed, as required;
- (iv) Assist PMU and PUSOs in establishing Grievance Redress Mechanism (GRM) in accordance with GRM procedure defined in the IEE/EMP, coordinate consultation with local stakeholders as required, informing them of imminent construction works, updating them on the latest project development activities, GRM, etc. Facilitate consultation between the contractor and local stakeholders including *Bagh* committees with respect to construction scheduling, anticipated impacts and proposed mitigation measures;
- (v) Review Tender and Contractor Documents to ensure all required environmental specifications have been included, update as required;
- (vi) Prepare environmental supervision checklists for monthly supervision of the EMP by the PUSO Support Group, and review contractor-EMPs to confirm compliance with the project EMP;
- (vii) On behalf of PMU, prepare annual EMP progress reports for ADB. The reports should review progress with project implementation and the results of internal monitoring, summarize and respond to the verification report of the independent environment monitor, identify problems encountered, actions taken to resolve problems and activities programmed for next monitoring period;
- (viii) Conduct training events for PUSOs and contractors on the requirements and implementation of the EMP in accordance with the training plan defined in the

- project EMP;
- (ix) Organize one public meeting in each project *aimag* with the PUSO Support Group prior to mid-term mission to present and discuss EMP implementation progress, solicit community opinions and concerns, and agree on required corrective actions.
- (x) Organize, prior to project completion report (PCR) mission, a survey to assess community satisfaction with AF project implementation and EMP implementation performance; and
- (xi) Draft environment sections of the PCR, including separate appendix on the additional financing project's environmental performance.

8. **Social development support.** The national specialist (3 person-months), should have relevant experience in social surveys and analyses with at least 8 years work experience in gender and social impact assessment, preferably for urban infrastructure projects. He/she will be responsible to provide social development support for the project implementation in compliance with ADB social safeguard and social development policies and procedures including the implementation of the SGAP, and coordinate the internal monitoring and other social safeguards related tasks. Specific tasks may include but are not be limited to:

Provide practical advice for EA/IA on the implementation of the SGAP;

- (ii) Ensure that the SGAP is reviewed and updated, as needed. Make sure that the SGAP is properly implemented and monitored;
- (iii) Assist in developing a detailed monitoring plan, the PPMS monitoring system (sex-disaggregated);
- (iv) Assist EA/IA to develop plan for the establishment and implementation of PPMS, conduct baseline survey, and conduct annual PPMS survey according to the developed implementation plan, and complete annual PPMS monitoring report in accordance ADB policies and requirements; Collect sex-disaggregated data, where possible.
- (v) Assist executing agency/implementing agency to develop to develop and carry out the LARP and IPP/EMDP, if necessary, provide assistance in implementing the LARP and IPP/EMDP, conduct monitoring and coordinate with the IA resettlement/social specialist to ensure the implementation is carried out in accordance with the government and ADB policies and procedures;
- (vi) Assist the executing agency/implementing agency to design and conduct public awareness campaigns identified under SGAP;
- (vii) Provide relevant inputs for project progress reports, semiannual monitoring reports, project completion report, and other project required documents;
- (viii) Assist the team leader to coordinate among the team specialists to provide project implementation support on technical review, procurement documents review and contract variation requests review, due diligence report, contractor's claims and other project management support; and
- (ix) Provide support for carrying out capacity building training, and provide management support to the capacity development activities. Provide training on proper implementation of SGAP (and LARP and IPP/EMDP, if necessary).

9. **Technical review, supervision and monitoring of plant commissioning and support to initial operation.** The international team leader and national deputy team leader and Wastewater Management Specialists will lead the technical review and quality assurance of the commissioning of the WWTP by the contractor/supplier, and will provide advisory support and assistance during the initial operational of the plants (first 6 months). In carrying out these

tasks, the team leader and deputy team leader will be assisted and supported as necessary by the Treatment Plant Equipment Specialist. Specific tasks will include, but are not limited to the following:

- (i) Review, comment upon and as necessary assist in the finalization of the WWTP Commissioning Plan by the contractor/supplier, including the sequencing of switch over from the temporary treatment arrangements;
- (ii) Work with the contractor/supplier, PMU and PUSOs to ensure that: (a) the commissioning plan is understood by all; and (b) all parties are familiar with their roles and responsibilities under the plan;
- (iii) During the commissioning process, supervise and quality assure the commissioning activities of the contractor/supplier and work with PUSO's operational staff to ensure that their role in operation, supervision and monitoring (as appropriate) is understood;
- (iv) In coordination with the contractor/supplier, PMU and PUSOs, establish an operational and treatment parameter monitoring plan, and assist in the establishment and operationalization of this plan;
- (v) Liaise with the supplier/contractor/operator, PUSOs, *aimag* environmental office and other concerned stakeholders during the commissioning and initial operational period to establish and adjust as necessary standard operation procedures, and performance monitoring program etc., specifically including those for sludge handling, treatment and disposal;
- (vi) Ensure that the supervisory control and data acquisition (SCADA) system is established, tested, calibrated and operated so as to optimize plant treatment efficiency;
- (vii) Monitor and quality assure operational procedures and plant performance during the first six months of plant operation, and ensure that there are in line with Mongolian and international best practice; and
- (viii) Provide support for carrying out capacity building and training for government wastewater treatment, operational and monitoring staff according to their responsibilities in plant operation and monitoring.

10. **Training program:** The consultants will provide on-the-job training which will be complemented by a capacity development and training program which will be arranged and carried out by the consultants during project implementation. The key training programs to be conducted by the consultants during execution of the services will be as outlined in the table below.

#### Indicative Training Program

Training Program	Scope of Training	Trainer	Participants
ADB disbursement procedures and financial management	ADB loan disbursement procedures Roles and responsibilities of stakeholders Flow of funds and utilisation of loan proceeds Risks of disbursement delays	PMIS, MNRM	PMU, PIU, MCUD, <i>Aimag</i> GOs and PUSOs
Project Financial Management and Financial Audit System	Basic financial management of project and management and implementing agencies Annual financial audit requirements – ADB and government requirements	PMIS	PMU, PIU, MCUD, <i>Aimag</i> GOs and PUSOs

Procurement and Contract Management	ADB procurement process Tender document preparation ADB tender evaluation guidelines, bid evaluation report preparation Risks and implications of improper tendering and corrective measures Variation orders and contract management	PMIS, MNRM	PMU, PIU, MCUD, <i>Aimag</i> GOs and PUSOs
Construction Management	Construction management: roles of client's representative, resident engineer, site engineers, inspectors etc. Quality control Quality assurance and third party verification	PMIS	PMU, PIU, MCUD, <i>Aimag</i> GOs and PUSOs
Implementation of EMP and other ADB & GoM environmental safeguards and social requirements	ADB environmental requirements EMP and environmental monitoring: execution requirements and responsibilities, The importance of environmental, social and safety considerations in investment planning and execution GoM environmental and social policies, legislation regulations and requirements inspection and reporting, feedback and adjustment	PMIS	PMU, PIU, MEGD, <i>Aimag</i> GOs and PUSOs Contractors
Project Benefit Monitoring and Evaluation	Project performance monitoring system (PPMS) Roles and responsibilities for implementation of PPMS Mechanisms for measurement of project outputs and outcomes Beneficiary surveys on public perceptions of infrastructure and service delivery	PMIS	PMU, PIUs, MCUD, <i>Aimag</i> GOs and PUSOs
Workshops on Key Project Issues	Workshops on project progress and execution and implementation issues – as necessary	PMIS	PMU, PIU, MEGD, <i>Aimag</i> GOs and PUSOs, Contractors

## B. Institutional Development and Capacity Building

11. The institutional, organizational and human resource development and capacity building (IDCB) services will require 62 person-months of national consultants. The consultants will have expertise in the reform and organizational development of water and wastewater utility service companies, water and wastewater company operations, water and wastewater services finance and financial management and accounting, human resources, human resource development, capacity building and training. The financial management consultants to be engaged must have a recognized professional accountancy qualification, such as Certified Accountant, and background in financial management and accounting. All team members are expected to act as resource persons for the training and development activities.

12. The institutional, organizational and human resource development and capacity building consulting services program will provide consultancy support to the *aimag* government and the project *aimag* PUSOs in organizational reform and development to assist in enabling the *aimag* governments and the project PUSOs to: (i) better plan for efficient water supply and wastewater

management (WSWM) service delivery to support growth; (ii) achieve financial and technical sustainability in WSWM service delivery; (iii) improve WSWM service delivery efficiency and customer-focus; and (iv) improve the chances of success, the consulting team will be fully integrated into the organizations to which they are providing organizational development support. Expertise will be required in the fields of: (i) organizational development and utilities reform; (ii) water and wastewater sector financial management and reform; (iii) institutional strengthening and capacity building in wastewater management and operation; (iv) human resource and staff development; and (v) business and operational planning and business plan preparation and (v) other specializations as required.

13. Support and training will be provided in: (i) wastewater management and operation; (ii) wastewater treatment plant operation; (iii) utilities management; (iv) financial management; (v) environmental and social safeguards, (vi) institutional development; (vii) human resource development; and (vi) project monitoring and evaluation. The services will use materials already developed through the ongoing project and through other recent urban development initiatives, and will support the mainstreaming of these improved approaches, procedures and working practices into PUSO operations.

14. The PMU, on behalf of MCUD, will be responsible for engaging consultants through QBS procedures, and in accordance with ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time). Under the consulting services contract, the consultant's activities will focus on the following:

- (i) Review the Analysis of the Current Situation: An assessment and analysis of the current situation with respect to the planning and delivery of water supply and wastewater in Project towns PUSO's;
- (ii) Strategic Review of sector reforms at the national and local level;
- (iii) Organizational Restructuring: Based on work under Parts i and ii, generate a preferred option for organizational restructuring and capacity development;
- (iv) Operational Restructuring: develop options for operational restructuring and capacity development;
- (v) Improving Financial Management Systems: Develop and support the implementation of proposals for improved financial sustainability and financial management;
- (vi) Regulation –Tariff Setting, Billing, and Income Collection: Develop and support the implementation of proposals for improved service regulation, tariff setting, billing and bill recovery; and
- (vii) First Stage Reforms and Capacity Building: Support the first phase of institutional and organizational reform, and carry out related capacity development activities.

15. **Organization Development:** Specific tasks under the consultancy will include but not necessarily limited to the following:

- (i) Assess current administrative, customer, finance, operations, maintenance, and planning activities and performance of the water supply and wastewater utility service provider PUSOs;
- (ii) Identify the constraints to improved service delivery and sustainability and the underlying causes whether policy, organizational, financial, technical, and provide analysis how these issues may be addressed;
- (iii) Prepare a functional profile for Water and Wastewater utility, including service delivery arrangements and work flows, showing key roles and indicating gaps or

- overlaps in roles and responsibilities;
- (iv) Review institutional development proposals and options considered and evaluated from previous urban, water supply and wastewater management technical assistance projects in Mongolia, and assess the practicality;
- (v) Assess the appropriate technologies and management arrangements for water supply and wastewater treatment for the project PUSOs;
- (vi) Strategic review of sector reforms and progress at the national and local levels including considerations of strengthening the role and impact of the Water Service Regulatory Commission;
- (vii) Develop an integrated 3 to 5 year business plan setting performance progress benchmarks towards defined standards of service, resourcing needs in terms of operating budget, capital investment, manpower and pricing implications to meet financial targets;
- (viii) Develop a draft performance contract between PUSOs and the *aimag* governments to allow strategic “arms-length” supervision and include mechanisms for cost of extension of infrastructure and services into new development areas, that should be factored into land use and development approvals;
- (ix) Propose and contribute to the institutional action plan including the introduction of advanced international water and wastewater utility management approaches;
- (x) Prepare training materials and provide classroom training and on-the-job training to *aimag* and PUSO staff; and
- (xi) Assist and support with the implementation of the action plan.

**16. Utility Financial Management:** Assessing, planning and implementing the financial management aspects including accounting and budgeting, tariff setting mechanisms, capital investment planning, and billing and collection system. The consultants will prepare the financial management inputs to the institutional improvement action plan and assist to implement selected tasks of the plan. Specific tasks include but are not limited to the following:

- (i) Perform activities and contribute to all three specific outputs necessary to contribute to the respective capacity building areas;
- (ii) Assess accounting, budgeting, business planning, and tariff setting policies and procedures;
- (iii) Review the financial information systems and procedures used by project PUSOs and propose improvements, including use of financial information as aid to management decision making;
- (iv) Develop proposals for improved financial sustainability and financial management;
- (v) Develop and assist implementation of an institutional development program for accounting, customer services, finance, and purchasing;
- (vi) Estimate appropriate annual operation and maintenance budgets based on realistic and affordable requirements over the next 5 and 10 years for each service type, and identify potential revenue sources to cover these costs;
- (vii) Advise and assist on improving procedures for financial data collection and reporting;
- (viii) Assess current administrative, customer, finance, operations, maintenance, and planning activities and performance;
- (ix) Prepare a Financial Management Improvement Plan to modernize the financial management arrangements of PUSOs. The scope includes: (a) recurrent and capital budget reporting and controls; (b) improved cost controls; (c) use of job

costing and activity based costing as appropriate; (d) development of relevant financial performance indicators and ratios; (e) control of working capital and cash flow; (f) use of financial planning and financial input to business plans; (g) computerization of systems as appropriate, (h) financial training for financial staff and for non-financial managers; and (i) improvements in financial procedures and regulations;

- (x) Assist in the selection of software for computer based systems for financial and management accounting and other financial activities;
- (xi) Recommend improvements to tariff setting procedure;
- (xii) Advise on mechanisms to assure pro-poor tariff structures and/or subsidies;
- (xiii) Prepare and execute a program of financial training seminars and courses for different levels of accountants and financial managers and for non-financial managers including preparation of training materials and provide classroom training and on-the-job training; and
- (xiv) Assist and support with the implementation of the action plan.

**17. Utility Service Delivery and Customer Relations:** Specific tasks in supporting utility and service delivery and customer relations include, but are not limited to, the following:

- (i) Perform activities and contribute to all three specific outputs necessary to contribute to the respective capacity building areas;
- (ii) Assess service quality and delivery from the viewpoint of the utility and from the customer;
- (iii) Organize customer surveys and focus discussion groups;
- (iv) Develop and implement an institutional development program for customer services to promote client orientation;
- (v) Recommend improvements to customer record keeping, billing, and collection;
- (vi) Develop appropriate customer response or effective feedback strategies, and an improved mechanism for PUSOs to address these;
- (vii) Review procedures for recording data needed for tariff calculations that include all aspects of the water supply and wastewater systems, customer services, and utility administration;
- (viii) Work closely with the *aimag* governments to formalize regulatory and tariff-setting systems;
- (ix) Develop a methodology for the periodic review of tariffs so that the various interests of the government, customers, and PUSOs are safeguarded. The methodology should include: (a) compliance with pricing regulations; (b) customer affordability analysis; (c) review of company performance in terms of service and efficiency; (d) providing for the financial viability of the company; (e) review and justification of any cross-subsidization in pricing; (f) results from customer satisfaction and willingness to pay surveys and other public consultation; and (g) setting a defined timetable for price reviews;
- (x) Review billing tariff and income collection arrangements and efficiency, and develop action plan for improvement where effectiveness or efficiency of income collection in needs improvement, including: (a) extent of computerization and scope for systems enhancement; (b) extent of arrears and mechanisms to reduce arrears and improve promptness of bill payment; (c) need for staff training; (d) management information to aid debt recovery; (e) methods of billing, payment and payment processing; (f) bill layout and explanations given to customers; and (g) benefits and costs of a progressive introduction of "smart metering";

- (xi) Carry out a brief market sounding to determine the interest in the domestic private sector for entering into private-public partnership in urban water supply and wastewater management sector in the project *aimags*;
- (xii) Undertake a general review of the PUSOs routine, periodic and emergency maintenance and preparedness programs and planning;
- (xiii) Develop public awareness and education programs that include protection of water resources from pollution, water conservation, and water reuse;
- (xiv) Prepare training materials and provide classroom training and on-the-job training to *aimag* and PUSO staff; and
- (xv) Assist and support with the implementation of the action plan.

18. **Human Resource Development:** Specific tasks in the development of human resources include, but are not limited to, the following:

- (i) The expert will prepare the institutional and operations inputs to the institutional development program and then assist the participating service providers to implement selected tasks in the program.
- (ii) Prepare institutional and organization development planning procedures;
- (iii) Provide advice and training on strategic and business planning, human resources management, and performance monitoring;
- (iv) Assist the utilities in developing an organization development plan;
- (v) Recommend organizational improvements including staffing and equipment;
- (vi) Make recommendations for improvements in human resource planning and assist in preparation of revised manpower plans;
- (vii) Develop optimal organizational management structures for PUSO to assist in improving its business performance and identify key organizational changes;
- (viii) Provide advice on arrangements for improved corporate governance including effective internal controls, considerations of rationalization of the existing Board of Directors and provide assistance in staffing;
- (ix) Develop and assist implementation of an institutional development program for administration, engineering, operations, and maintenance;
- (x) Design and assist in development of improved management information system to allow senior management to monitor actual company performance in real time against business plans;
- (xi) Develop human resources policies and procedures to improve the skills and performance of the workforce including staff appraisal and performance measurement systems, identification of training needs and delivery of training, and reward mechanisms and incentive structure;
- (xii) Prepare, agree, and implement a program of management training on operational and financial aspects;
- (xiii) Prepare the training inputs to the institutional development program; and
- (xiv) Develop and assist implementation of procedures that the utility can use to monitor and evaluate training.

19. **Infrastructure Planning:** The consultancy will assist in creating a link between infrastructure planning with urban master planning for the project *aimags* and liaise with the various stakeholders to support integration of initiatives and support institutional capacity development for planning and expansion of services. Specific tasks include, but are not limited to, the following:

- (i) Review water and wastewater sector infrastructure investment plans, urban

- (ii) Review previous and current urban and regional economic, land use and transportation plans for project *aimags* and discuss and propose optimization from an integrated infrastructure efficiency perspective;
- (iii) Cooperate with planning officers in charge of other sector planning in integrating various technical, environmental, economic and social aspects of development planning and infrastructure planning for project *aimags*;
- (iv) Contribute to the ongoing planning initiatives with proposals for integrating efficient water and wastewater infrastructure;
- (v) Organize and participate in urban-rural infrastructure development planning workshops with local stakeholders, the *aimag* governments and MCUD and other concerned agencies;
- (vi) Review water and wastewater infrastructure expansion plans into existing urban areas including *ger* areas and propose technical and organizational solutions;
- (vii) Assist PUSOs in the development of procedures for identifying and prioritizing capital projects and link this process to the preparation of business plans and capital budgets;
- (viii) Assist and support with the implementation of the utilities improvement action plan;
- (ix) Perform activities and contribute to all three outputs specific to the expert's specialty field and contribute the respective sections to the reports; and
- (x) Prepare training materials and provide classroom training and on-the-job training to *aimags* and PUSO staff.

20. **Training program:** The capacity development and training program will be arranged and carried out by the consultant's as an integral part of the implementation of the IDCB services. The program is intended to support institutional development and management improvements, and will largely be carried out by the experts engaged to discharge the IDCB services. The table below provides an indication of the training and study tours required.

### Indicative Training Program

Training Program	Scope of Training	Trainer	Participants
Wastewater Treatment Plant Technology	Wastewater treatment technology options and selection Structural rehabilitation Wastewater management equipment retrofitting Effluent polishing and reuse Sludge treatment and management	IDCB	PMU, PIU, MCUD, <i>Aimag</i> GOs and PUSOs
Industrial Effluent Management	Effluent management responsibilities Effluent discharge monitoring and role for utility company Emergency response	IDCB	PIU, MCUD, <i>Aimag</i> GOs and PUSOs
Study tour to examples of efficient WSS institutions in North East Asia (or other appropriate location)	Study tour to help understand options for efficient WSS service delivery in small cities Benefit from understanding experiences of other WSS utilities in similar socioeconomic and geographical circumstances (Northern PRC, Russian Federation, Northern and Eastern Europe, or North America including Alaska)	IDCB, Coordinated with Twinning Program with suitable WSS Utility Company	MCUD, <i>Aimag</i> GOs and PUSOs
Service and Utility Delivery: Institutional Options	Service Delivery Objectives Service delivery institutional models Examples from international experience The regional and Mongolian context Separation of regulatory, strategic planning and service delivery roles Potential role for the <i>aimag</i> government, service delivery entity, consumer and private sector	IDCB	MCUD, <i>Aimag</i> GOs and PUSOs
Utility Company Business and Change Management Plan Preparation	Business plan purpose and structure Institutional and financial objectives Change management challenges – corporate governance and management structure, finance, and human resources issues Transition to a customer-facing organization Promoting water supply and sanitation services in <i>ger</i> areas	IDCB	MCUD, <i>Aimag</i> GOs and PUSOs

<b>Training Program</b>	<b>Scope of Training</b>	<b>Trainer</b>	<b>Participants</b>
Water Supply and Wastewater Management Utilities Planning	Urban development and service demand projections Levels of service and affordability issues Service supply typology and service delivery innovation Elements of the plan and sequencing of implementation. The project cycle and achieving “value for money” in infrastructure investment	IDCB	MCUD, <i>Aimag</i> GOs and PUSOs
Utility Services Financial Management and Cost Recovery	Financial management of utility companies Affordability, cost recovery and tariff regimes and options Revenue enhancement, debt management and expenditure control Financing options for capital improvements	IDCB	MCUD, <i>Aimag</i> GOs and PUSOs
Contracting Out: Management, Procurement and Financing Options and Modalities	Roles for the private sector – form service contracts to divestiture; benefits and risks Legal and regulatory environment for PPPs in Mongolia Management, operational and financing options involving the private sector in the Mongolian context.	IDCB	MCUD, <i>Aimag</i> GOs and PUSOs
Operation and Maintenance of Water Supply and Wastewater Management Assets	Operational requirements of systems and facilities – the financial & economic case for asset protection Definition of preventive, routine and periodic maintenance Lifetime pricing and assessment of economic lifetime of assets Facilities management Maintenance planning and resource allocation Emergency planning and response A role for the community – with a focus on decentralized and household level systems	IDCB	MCUD, <i>Aimag</i> GOs and PUSOs
System operation and investment prioritization	Problem of non-revenue water and its reduction Prioritizing network and facilities replacement and rehabilitation needs Strategy for extension of networks into <i>ger</i> areas Innovate techniques for defraying consumer installation costs	IDCB	

Training Program	Scope of Training	Trainer	Participants
Workshops on Key Institutional Development, Change Management and Human Resource	Workshops on key aspects of the institutional development and reform process as necessary and from time to time to include:	IDCB	MCUD, <i>Aimag</i> GOs and PUSOs

IDCB = Institutional Development and Capacity Building, MCUD = Ministry of Construction and Urban Development  
 PIU = project implementation unit, PUSO = public utility service organization

### C. Contracted Staff: Project Management and PMU Support

21. Technical Support Staff will be contracted on an as-needed basis to support the PMU in activities related to supporting project management and delivery. This consultancy will complement that provided under parts B.1 and B.2 of the project. One specified role will be that of an independent environment monitor. This position and other consultancy positions under this component will be selected in accordance with shopping procedures carried out in accordance with ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time).

22. **Independent Environment Monitor.** The individual consultant will be a licensed monitoring entity in Mongolia and will conduct independent EMP implementation verification and environment quality monitoring during project construction. The expert will perform the following tasks - but not limited to - with respect to environmental monitoring:

- (i) Review the project IEE and EMP as well as domestic detailed EIAs (DEIAs) to understand the environmental issues associated with the project area and the environmental management obligations of the various project stakeholders;
- (ii) Conduct at least two site visits to each construction site (4 *aimags*) during the construction period to conduct an independent assessment of the project's compliance with the project EMP and the domestic EIAs;
- (iii) Conduct environment quality monitoring covering air quality, noise, construction wastewater quality at each construction site in compliance with the monitoring plan;
- (iv) Assess the contractors', PUSOs', PMIS, and PMU's compliance with their respective EMP implementation responsibilities as defined in the PAM;
- (v) Prepare independent EMP monitoring reports for the PMU. The reports should highlight good practices, identify problems encountered, define recommendations for actions to be taken to resolve problems or improve environment management performance of various stakeholders; and
- (vi) Participate at project completion mission and provide inputs to the PCR as requested by the PMU and ADB.