

Project Administration Manual

Project Number: 46135-004
Loan Number: LXXXX
September 2016

Republic of Uzbekistan: Tashkent Province Water
Supply Development Project

ABBREVIATIONS

| | | |
|------|---|--|
| ADB | = | Asian Development Bank |
| C&P | = | communication and participation |
| COA | = | chamber of accounts |
| COM | = | cabinet of ministers |
| CRU | = | control and revision unit |
| DMF | = | design and monitoring framework |
| TPS | = | Tashkent Provincial <i>Suvokova</i> (state unitary enterprise) |
| EA | = | executing agency |
| EMP | = | environmental management plan |
| GAP | = | gender action plan |
| IA | = | implementing agency |
| IEE | = | initial environmental examination |
| LARP | = | land acquisition and resettlement plan |
| PAM | = | project administration manual |
| PDC | = | project development consultant |
| PCU | = | project coordination unit |
| QCBS | = | quality- and cost-based selection |
| RRP | = | report and recommendation of the President to the Board |
| SOE | = | statement of expenditure |
| SPS | = | Safeguard Policy Statement |
| TOR | = | terms of reference |
| UCSA | = | Uzbekistan Agency " <i>Uzkommunhizmat</i> " |
| WTP | = | water treatment plant |

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Project Administration Manual Purpose and Process

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with 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 Uzbekistan Agency “*Uzkommunhizmat*” (UCSA), the Executing Agency (EA), the Project Coordination Unit (PCU), Tashkent Provincial *Suvokova* (TPS), the Implementing Agency (IA), are wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. ADB staff is responsible to support implementation including compliance by UCSA and the TPS of their obligations and responsibilities for project implementation in accordance with ADB’s policies and procedures.

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

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

I. PROJECT DESCRIPTION

1. The project will support the Government of Uzbekistan in the rehabilitation of a regional water supply system located in two districts (Zangiota and Kibray) of Tashkent Province. Responding directly to the needs of the population in the project, it will upgrade existing water supply networks, provide potable water treatment services, build institutional capacity, and assist to strengthen the province's water supply and wastewater utility.¹

a. Impact and Outcome

2. The project impact will be aligned with improved living standards, health, and economy in Tashkent Province. The outcome will be improved access to reliable, sustainable and affordable water supply services in Zangiota and Kibray Districts of Tashkent Province.

b. Outputs

3. The project will have two outputs:

- (i) **Output 1: Kadirya regional water supply system improved.** Output 1 will consist of a new potable water treatment plant (WTP) producing 105,000 m³ of potable water daily, 58.3-km length of water transmission mains, 8 new and 9 rehabilitated pumping station mains, 27.2 km of distribution main pipes, and 337.8 km of distribution networks..
- (ii) **Output 2: Improved financial, operational and system management of the TPS for Kibray and Zangiota District branches.** Output 2 will improve the financial, operational and system management of TPS, including the provision of training for technical and financial management, assistance with the establishment of customer care units at the Kibray and Zangiota district branches, installation of household water meters, and implementation of a computerized financial management system.

¹ The Asian Development Bank (ADB) provided project preparatory technical assistance for the Tashkent Province Water Supply Development Project (TA8227).

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

| Indicative Activities | 2016 | | | | | | 2017 | Responsible Individual Unit/Agency/Government |
|---|------|-----|-----|-----|-----|-----|------|--|
| | Sep | Oct | Nov | Dec | Jan | Feb | Mar | |
| Advance contracting actions | X | X | X | X | X | X | X | EA, ADB |
| Establish project implementation arrangements | X | X | X | X | X | X | | EA |
| ADB Board approval | | X | | | | | | ADB |
| Loan signing | | | | X | | | | MOF, EA, ADB |
| Government legal opinion provided | | | | | X | | | MOF, MOJ |
| Government budget inclusion | | | X | | | | | MOF |
| Loan effectiveness | | | | | | | X | MOF, ADB |

ADB = Asian Development Bank, EA = executing agency, MOF = Ministry of Finance, MOJ = Ministry of Justice

B. Overall Project Implementation Plan

[illegible]

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations – Roles and Responsibilities

Project implementation organizations

Management Roles and Responsibilities

| | |
|--|--|
| Executing Agency (EA) Agency “ <i>Uzkommunhizmat</i> ” (UCSA) and Project Coordination Unit (PCU) | <ul style="list-style-type: none"> ➤ Setup Interagency Council ➤ Assume overall responsibility for project implementation; such as procurement, contract management, financial management, project administration, and safeguards compliance, reporting and engagement of additional PCU staff for the project ➤ Approve medium term and annual rolling plans for project implementation ➤ Ensure compliance with loan covenants ➤ Ensure government counterpart fund allocation ➤ Open and manage the sub-imprest account ➤ Prepare and submit withdrawal applications to ADB ➤ Submit audited project accounts and audited financial statements to ADB ➤ Approve procurement plans, bidding documents, bid evaluation and contract awards in accordance with ADB and Government of Uzbekistan requirements ➤ Submit regular quarterly and annual project progress reports to ADB ➤ Submit updated resettlement plans for ADB concurrence prior to implementation ➤ Coordinate capacity building activities ➤ Ensure capabilities are developed for operations and maintenance (O&M) of completed infrastructure ➤ Ensure compliance with ADB’s social and environmental policies and guidelines during project implementation ➤ Prepare and submit social and environmental monitoring reports to ADB ➤ Approve proposed actions in the event of adverse financial audits or monitoring and evaluation reports ➤ Select consultants for project development and auditor |
| Interagency Council | <ul style="list-style-type: none"> ➤ Coordinate and monitor project activities of the project coordination unit (PCU) ➤ Support PCU in carrying out the approved annual rolling plans ➤ Coordinate in providing capacity development program for PCU ➤ Obtain necessary approvals from respective departments prior to awarding of civil works contracts ➤ Support PCU in the implementation of environmental management plans (EMPs) ➤ Coordinate regular reporting of PCU to EA on EMP implementation |

Project implementation organizations

Management Roles and Responsibilities

| | |
|---|---|
| | <ul style="list-style-type: none"> ➤ Coordinate the implementation of the project's consultation and participation plan, social development plan and gender action plan (GAP) ➤ Undertake regular quality control inspection of project facilities ➤ Manage the handover of Project facilities to agencies responsible for operation and maintenance ➤ Undertake monitoring in compliance with the Design and Monitoring Framework (DMF) and other project documents such as EMP, Resettlement Plans and GAP in conjunction with PCU |
| Tashkent Provincial Suvokova – Implementing Agency (IA) | <ul style="list-style-type: none"> ➤ Open and manage the project's imprest account ➤ Manage separate project financial records and account, and prepare and submit required financial reports, accounts, and agency financial statements for submission to PCU and ADB ➤ Ensure implementation of GAP ➤ Undertake monitoring with disaggregation of data by sex and income group as required by the Project's design and monitoring framework ➤ Monitor and review overall implementation in consultation with the EA including: <ul style="list-style-type: none"> • Project implementation schedule • Prior review in accordance with procurement plan • Actions required with reference to the summary poverty reduction and social strategy, GAP, EMP and RP; • Timeliness of budgetary allocations and counterpart funding • Project expenditure progress with procurement and disbursement, statement of expenditures when applicable • Compliance with loan covenants • Likelihood of attaining project development objectives • Named as employer in all of the project contracts |

B. Key Persons Involved in Implementation

Executing Agency

Uzbekistan Agency
“Uzkommunhizmat”
(UCSA)

Officer’s Name: Mr. Ilkhom Mahkamov
Position: Director General
Telephone No. +998 71 2322537
Facsimile: 998 71 2341103
Office address: 1 Niyozbek Yuli St., 100035, Tashkent
Republic of Uzbekistan

Project Coordination
Unit (PCU)

Officer’s Name: Bakhrom Mavlyanov
Position: Acting Director
Telephone No. +998 71 2322537
Facsimile: 998 71 2341103
Email address:

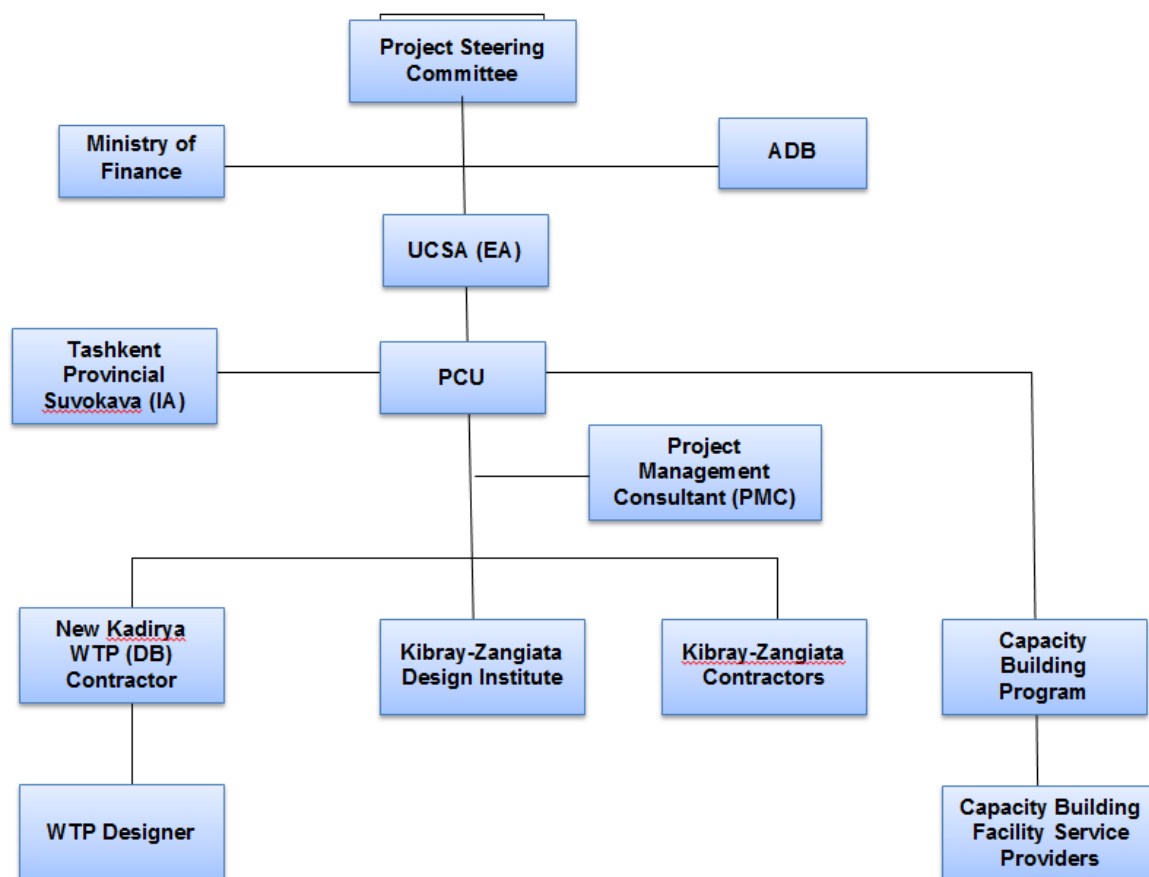
Asian Development Bank

Urban Development
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C. Project Organization Structure



1. **Implementation Roles.** UCSA is the executing agency for the project with its existing PCU as the coordinating unit. UCSA will be responsible for, among others, procurement, contract management, financial management, project administration, and safeguards compliance and reporting. TPS will be the implementing agency for the project, with its strategic development department as the implementation unit. TPS will be the employer in all contracts under the project; owner of all facilities constructed and rehabilitated; holder of the imprest account; and responsible for the preparation of the TPS' financial statements. UCSA and the TPS will jointly report to the Interagency Council once every quarter.

2. **PCU Staffing.** The following six staff with the following expertise will be engaged in the PCU and they will be dedicated to the implementation of the project: (i) Deputy PCU Director/ Water Supply and Sanitation Engineer; (ii) Financial Management Specialist; (iii) Accountant/Financial Controller; (iv) Procurement Specialist; (v) Environmental and Social Safeguard Specialist; and (vi) Regional Project Monitoring Specialist. TPS will maintain two staff who will be dedicated to the implementation of the project.

IV. COSTS AND FINANCING

3. The project is estimated to cost \$143.83 million (Table 1). The cost includes physical and price contingencies, taxes and duties, and interest charges during implementation. The financing plan is in Table 1.

Table 1: Financing Plan
(\$ million)

| Source | Amount (\$ million) | Share of Total (%) |
|--------------------------------|---------------------|--------------------|
| Asian Development Bank | | |
| Special Funds resources (loan) | 120.90 | 84.1 |
| Government ^a | 22.93 | 15.9 |
| Total | 143.83 | 100.0 |

^a Government contribution includes taxes and duties.

Source: Asian Development Bank.

4. In addition to works, goods, consulting services, training, capacity development and studies, and interest during implementation, ADB project funding will include the financing of (i) costs of the PCU, including staff salaries and operating costs,² (ii) social charges and withholding taxes assessed on PCU staff salaries, and (iii) resettlement costs³.

A. Cost Estimates Preparation and Revisions

4. Cost estimates for the proposed project infrastructure including the water treatment works, transmission mains and water distribution systems were prepared by the design unit consultants. Costs are estimated based on detailed designs for each component and current prices for materials, equipment and civil works in similar locations in Uzbekistan. The cost estimates for the technical assistance, capacity building and support activities were prepared by the PPTA consultant utilizing local knowledge and also based on current costs prevailing in Uzbekistan in early 2016. The costs have been revised several times to allow for changes in the configuration and scope of the project. Costs were compiled in COSTAB, and also in Excel to facilitate further manipulation and revision by the PCU during implementation of the project.

5. Costs are expressed in Uzbekistan sum (SUM) and US Dollars (\$) at an exchange rate of SUM2,899 to \$1. The cost estimates use constant purchasing parity exchange rate (CPP) which allows for the depreciation of the SUM against the \$.

B. Key Assumptions

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

- (i) Exchange rate: SUM 2899 = \$1.00 (as of 20 July 2016).

² ADB financing of PCU costs is considered necessary to ensure timely availability of funds for a function critical to the overall success and timely completion of the project. In addition, the budgeted costs for the PCU are viewed as reasonable and consistent with project management costs incurred and financed by ADB under the ongoing L3275-UZB(SF): *Djizzak Sanitation System Development* Project, and four under the first multitranchise financing facility (MFF) (*Water Supply and Sanitation Services Investment Program*), namely L2564-UZB-Tranche 1; L2633-UZB-Tranche 2; L2825-UZB-Tranche 3; and L3064-UZB-Tranche 4.

³ The resettlement costs are material to the success of the project. They will be incurred in compliance with ADB's Safeguard Policy Statement (2009) and the ADB approved resettlement plan for the project. The resettlement costs represent 0.8% of the project investment plan. ADB also financed resettlement costs in the projects under the ongoing MFF and Loan 3275-UZB: *Djizzak Sanitation System Development* Project.

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

Table 2: Inflation Rates for Price Contingency Calculation

| Item | Up to Project Start | 2017 | 2018 | 2019 | 2020 | 2021 |
|--|------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Inflation (in %'s) /a | | | | | | |
| Price Contingency | | | | | | |
| Annual rates | | | | | | |
| Domestic | 0.0 | 11.0 | 9.7 | 10.0 | 10.0 | 10.0 |
| Foreign | 0.0 | 1.4 | 1.5 | 1.5 | 1.5 | 1.5 |
| Compounded rates | | | | | | |
| Domestic | 0.0 | 5.5 | 16.4 | 27.9 | 40.6 | 54.7 |
| Foreign | 0.0 | 0.7 | 2.2 | 3.7 | 5.2 | 6.8 |
| Exchange rates (Local/Foreign) /b | | | | | | |
| Price Contingency | | | | | | |
| Constant purchasing parity rates | 2,899.0 | 3,037.2 | 3,302.6 | 3,574.5 | 3,873.9 | 4,198.3 |

Source: ADB's latest projected rates for Uzbekistan and the world.

\a Yearly values are within Each Project Year

\b Yearly values are at Project Year Midpoints

A. Detailed Cost Estimates by Expenditure Category

| | (UZS Million) | | | (US\$ '000) | | | % total base costs |
|--|----------------|----------------|----------------|---------------|---------------|----------------|--------------------|
| | Local | Foreign | Total | Local | Foreign | Total | |
| I. Investment Costs | | | | | | | |
| A. Civil Works | | | | | | | |
| Structures | 71,704 | 34,261 | 105,965 | 19,157 | 9,127 | 28,284 | 22 |
| Piping, valves & flow meters | 187,526 | 143,198 | 322,129 | 36,041 | 50,212 | 86,253 | 66 |
| Detailed Design and Supervision | 3,513 | 1,670 | 5,183 | 1,024 | 488 | 1,512 | 1 |
| Compensation and Resettlement | 4,501 | 15 | 3,764 | 1,356 | 4 | 1,134 | 1 |
| Environmental Mitigation & Monitoring | 793 | 88 | 881 | 203 | 23 | 226 | 0 |
| Subtotal | 268,038 | 179,232 | 437,922 | 57,782 | 59,853 | 117,409 | 90 |
| B. Equipment and Machinery | | | | | | | |
| Pumps & motors | 11,225 | 6,224 | 17,449 | 1,016 | 1,524 | 2,539 | 2 |
| Electrical equipment | 4,264 | 4,362 | 8,626 | 3,203 | 1,068 | 4,271 | 3 |
| Equipment | 687 | 999 | 1,687 | 171 | 245 | 416 | 0 |
| Vehicles & Machinery | 1,404 | 2,133 | 3,537 | 345 | 527 | 872 | 1 |
| Subtotal | 17,580 | 13,719 | 31,298 | 4,735 | 3,364 | 8,099 | 6 |
| C. Training, Capacity Development & Studies | | | | | | | |
| Training & capacity development | 847 | 1,018 | 1,865 | 216 | 258 | 474 | 0 |
| Surveys and Studies | 39 | 26 | 62 | 13 | 9 | 22 | 0 |
| Subtotal | 664 | 775 | 1,438 | 229 | 267 | 496 | 0 |
| D. Consulting Services | | | | | | | |
| International Consultants | 861 | 3,446 | 4,307 | 243 | 973 | 1,217 | 1 |
| National Consultants | 1,424 | 3,322 | 4,745 | 389 | 908 | 1,298 | 1 |
| Consultant support costs | 1,077 | 1,457 | 2,534 | 302 | 413 | 715 | 1 |
| Financial Audit | 22 | 518 | 540 | 36 | 144 | 180 | 0 |
| Subtotal | 3,384 | 8,743 | 12,127 | 970 | 2,439 | 3,409 | 3 |
| E. Project Management | | | | | | | |
| PCU Operating costs | 2,815 | 73 | 2,888 | 776 | 20 | 797 | 1 |
| Total Investment Costs | 292,480 | 202,540 | 485,673 | 64,493 | 65,943 | 130,209 | 100 |
| Total BASELINE COSTS | 292,480 | 202,540 | 485,673 | 64,493 | 65,943 | 130,209 | 100 |
| Physical Contingencies | 6,048 | 4,489 | 10,536 | 2,526 | 1,548 | 4,074 | 3 |
| Price Contingencies | 77,233 | 57,958 | 135,190 | 2,982 | 2,567 | 5,549 | 4 |
| Total PROJECT COSTS | 375,761 | 264,987 | 631,400 | 70,000 | 70,059 | 139,832 | 108 |
| Interest During Implementation | - | 14,101 | 14,101 | - | 3,996 | 3,996 | 3 |
| Total Costs to be Financed | 375,761 | 279,088 | 645,501 | 70,000 | 74,055 | 143,828 | 111 |

B. Allocation and Withdrawal of Loan Proceeds

| ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS (Tashkent Province Water Supply Development Project) | | | |
|--|---|--|---|
| Number | Item | Total Amount Allocated for ADB Financing (SDR) Category | Basis for Withdrawal from the Loan Account |
| 1 | Civil Works and Goods | 73,284,000 | 100% of total expenditure claimed* |
| 2 | Training, Detailed Design, Capacity Development & Studies | 1,378,000 | 100% of total expenditure claimed* |
| 3 | Consulting Services | 2,033,000 | 100% of total expenditure claimed* |
| 4 | Resettlement | 676,000 | 100% of total expenditure claimed* |
| 5 | Recurrent Costs (Including salaries of staff in the project coordination unit of UCSA who are supporting the Project; withholding taxes on such salaries; Unified Social Payments assessed on such salaries under the Borrower's applicable law) | 549,000 | 100% of total expenditure claimed* |
| 6 | Interest Charge | 2,861,000 | 100% of amounts due |
| 7 | Unallocated | 5,756,000 | |
| | Total | 86,537,000 | |

* Exclusive of taxes and duties for all items imposed within the territory of the Borrower

C. Detailed Cost Estimates by Financier

| Item | ADB | | Government | | | Total Cost | % of total costs |
|--|----------------|-------------|------------|---------------|-------------|----------------|------------------|
| | Amount | % | Amount | Tax | % | | |
| I. Investment Costs | | | | | | | |
| A. Civil Works | | | | | | | |
| Structures | 23,570 | 83.3 | 0 | 4,714 | 16.7 | 28,284 | 19.7 |
| Piping, valves & flow meters | 71,878 | 83.3 | 0 | 14,376 | 16.7 | 86,253 | 60.0 |
| Detailed Design and Supervision | 1,512 | 100.0 | 0 | - | - | 1,512 | 1.1 |
| Compensation and Resettlement | 945 | 83.3 | 0 | 189 | 16.7 | 1,134 | 0.8 |
| Environmental Mitigation & Monitoring | 188 | 83.3 | 0 | 38 | 16.7 | 226 | 0.2 |
| Subtotal | 98,093 | 83.5 | 0 | 19,316 | 16.4 | 117,409 | 81.6 |
| B. Equipment and Machinery | | | | | | | |
| Pumps & motors | 2,116 | 83.3 | 0 | 423 | 16.7 | 2,539 | 1.8 |
| Electrical equipment | 3,559 | 83.3 | 0 | 712 | 16.7 | 4,271 | 3.0 |
| Equipment | 347 | 83.3 | 0 | 69 | 16.7 | 416 | 0.3 |
| Vehicles & Machinery | 727 | 83.3 | 0 | 145 | 16.7 | 872 | 0.6 |
| Subtotal | 6,749 | 83.3 | 0 | 1,350 | 16.7 | 8,099 | 5.6 |
| C. Training, Capacity Development & Studies | | | | | | | |
| Training & capacity development | 394.8 | 83.3 | 0 | 79 | 16.7 | 474 | 0.3 |
| Surveys and Studies | 19 | 83.3 | 0 | 4 | 16.7 | 22 | 0.0 |
| Subtotal | 413 | 83.3 | 0 | 83 | 16.7 | 496 | 0.3 |
| D. Consulting Services | | | 0 | | | | |
| International Consultants | 1,014 | 83.3 | | 203 | 16.7 | 1,217 | 0.8 |
| National Consultants | 1,081 | 83.3 | 0 | 216 | 16.7 | 1,298 | 0.9 |
| Consultant support costs | 595 | 83.3 | 0 | 119 | 16.7 | 715 | 0.5 |
| Financial Audit | 150 | 83.3 | 0 | 30 | 16.7 | 180 | 0.1 |
| Subtotal | 2,841 | 83.3 | 0 | 568 | 16.7 | 3,409 | 2.4 |
| E. Project Management | | | | | | | |
| PCU Operating costs | 767 | 96.3 | 0 | 30 | 3.7 | 797 | 0.6 |
| Total Base Costs | 108,863 | 83.6 | 0 | 21,346 | 16.4 | 130,209 | 90.5 |
| Physical Contingencies | 3,399 | 83.4 | | 675 | 16.6 | 4,074 | 2.8 |
| Price Contingencies | 4,642 | 83.7 | | 907 | 16.3 | 5,549 | 3.9 |
| Total Project Costs | 116,904 | | | 22,928 | | 139,832 | |
| Interest During Implementation | 3,996 | 100.0 | 0 | - | - | 3,996 | 2.8 |
| Total Disbursement | 120,900 | 84.1 | 0 | 22,928 | 15.9 | 143,828 | 100.0 |

D. Detailed Cost Estimates by Outputs/Components

| Item | Total | Output I: Water Supply Infrastructure Improvement | % Cost category | Output II: Investment Program Management and Capacity Development | % Cost category |
|--|-------------------|--|--------------------|--|--------------------|
| I. Investment Costs^a | | | | | |
| A. Civil Works | | | | | |
| Structures | 28,284.22 | 28,284.22 | 100% | - | 0% |
| Piping, valves & flow meters | 86,253.18 | 86,253.18 | 100% | - | 0% |
| Detailed Design and Supervision | 1,512.00 | 1,512.00 | 100% | - | 0% |
| Compensation and Resettlement | 1,133.65 | 1,133.65 | 100% | - | 0% |
| Environmental Mitigation & Monitoring | 225.61 | 225.61 | 100% | - | 0% |
| Subtotal | 117,408.66 | 117,408.66 | 100% | - | 0% |
| B. Equipment and Machinery | | | | | |
| Pumps & motors | 2,539.28 | 2,539.28 | 100% | - | 0% |
| Electrical equipment | 4,271.36 | 4,271.36 | 100% | - | 0% |
| Equipment | 416.00 | - | 0% | 416.00 | 100% |
| Vehicles & Machinery | 872.10 | 848.10 | 97% | 24.00 | 3% |
| Subtotal | 8,098.75 | 7,658.75 | 95% | 440.00 | 5% |
| C. Training, Capacity Development & Studies | | | | | |
| Training & capacity development | 473.76 | - | 0% | 473.76 | 100% |
| Surveys and Studies | 22.40 | - | 0% | 22.40 | 100% |
| Subtotal | 496.16 | - | 0% | 496.16 | 100% |
| D. Consulting Services | | | | | |
| International Consultants | 1,216.80 | - | 0% | 1,216.80 | 100% |
| National Consultants | 1,297.52 | - | 0% | 1,297.52 | 100% |
| Consultant support costs | 714.56 | - | 0% | 714.56 | 100% |
| Financial Audit | 180.00 | - | 0% | 180.00 | 100% |
| Subtotal | 3,408.89 | - | 0% | 3,408.89 | 100% |
| E. Project Management | | | | | |
| PCU Operating costs | 796.50 | - | 0% | 796.50 | 100% |
| Total BASELINE COSTS | 130,208.96 | 125,067.41 | 96% | 5,141.56 | 4% |
| Contingencies | | | | | |
| Physical Contingencies ^b | 3,634.00 | 3,602.00 | 99% | 32.00 | 1% |
| Price Contingencies | 5,989.04 | 5,920.04 | 99% | 69.00 | 1% |
| Total PROJECT COSTS | 139,832.00 | 134,589.45 | 96% | 5,242.56 | 4% |

a. In early 2016 prices

b. Computed at 3% for most costs

c. Computed at 1.4 - 1.5% for international costs and for local costs 9.7 - 11% on local currency costs using constant purchase price

d. Excluding interest during implementation of \$4.00 million

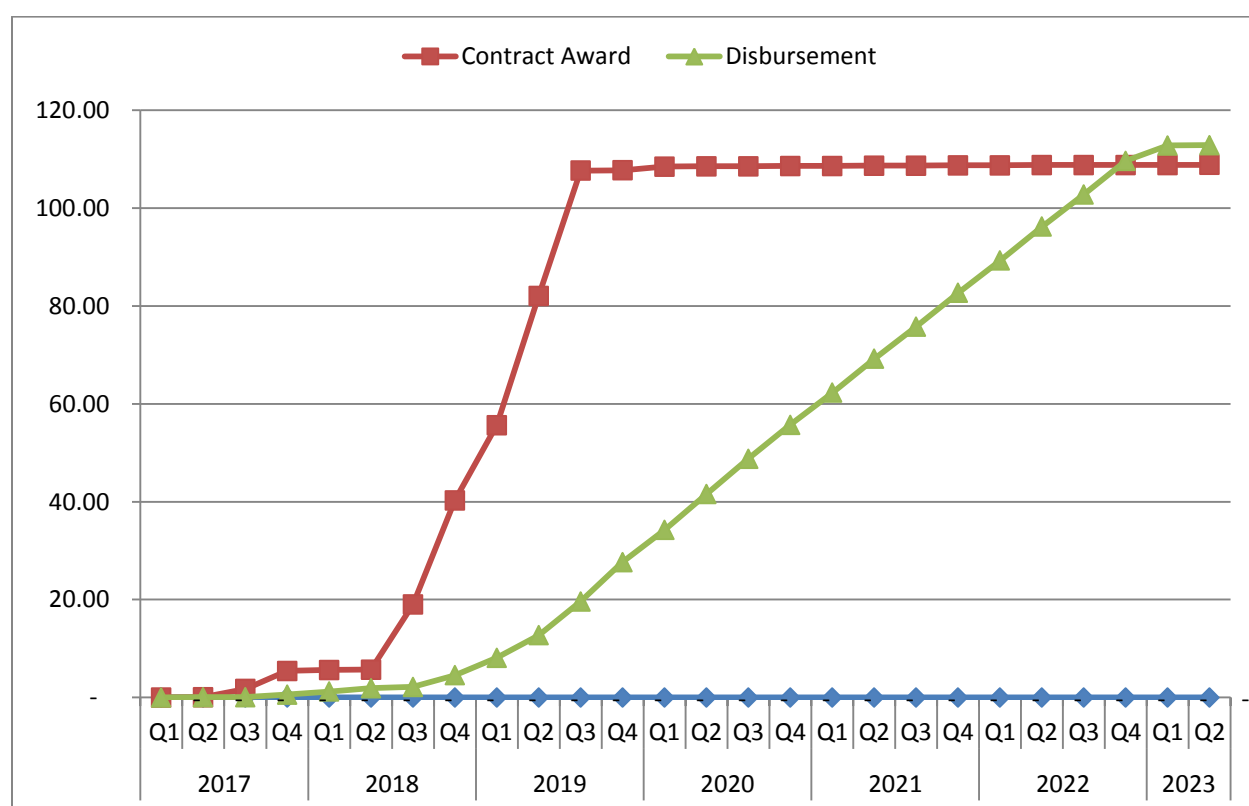
Source: Consultant estimates

E. Detailed Cost Estimates by Year

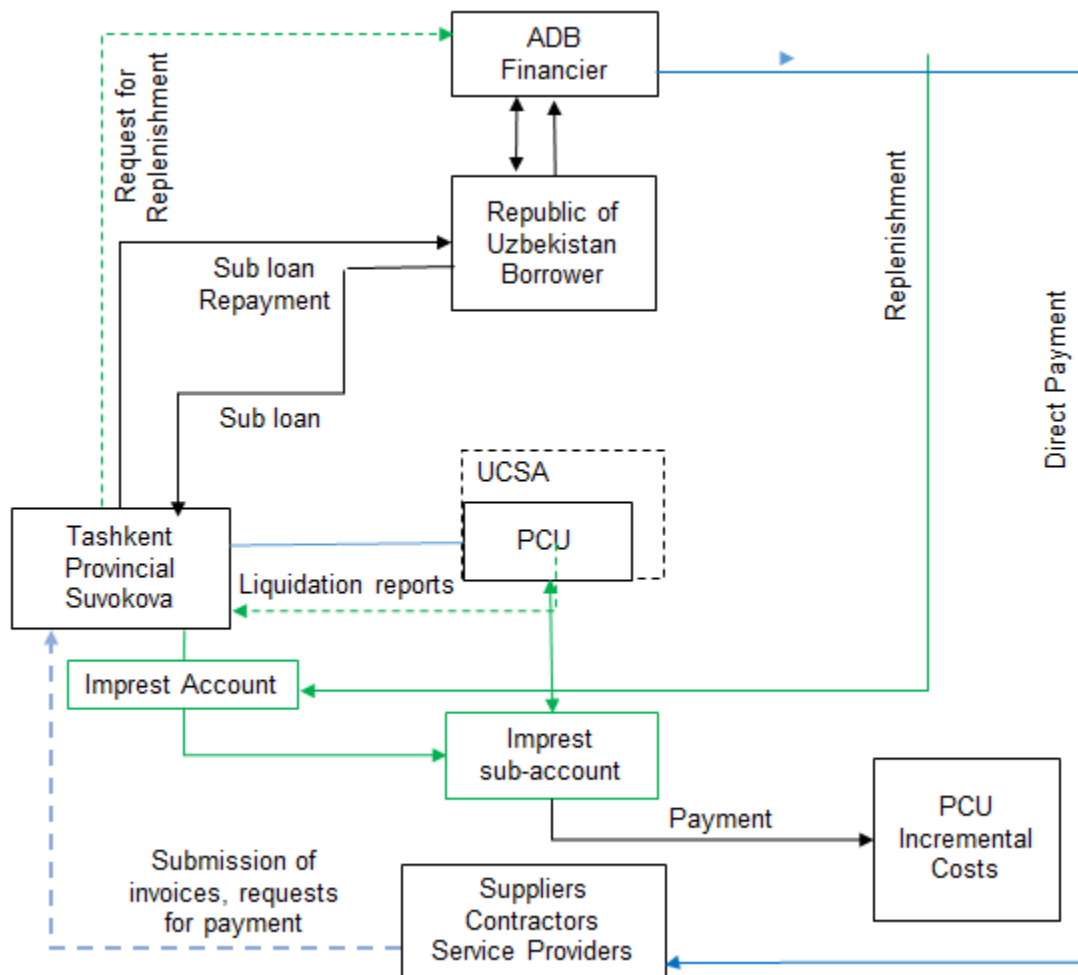
| | 2017 | 2018 | 2019 | 2020 | 2021 | Total | FE% | % Base Costs |
|--|---------------|------------------|------------------|------------------|------------------|-------------------|----------|--------------------|
| A. Investment Costs | | | | | | | | |
| 1. Civil Works | | | | | | | | |
| Structures | - | 4,549.51 | 6,824.27 | 7,147.01 | 5,049.38 | 23,570.18 | 32 | 18 |
| Piping, valves & flow meters | - | 14,375.53 | 21,563.30 | 21,563.30 | 14,375.53 | 71,877.65 | 58 | 55 |
| Detailed Design and Supervision | 161.20 | 672.60 | 545.20 | 108.50 | 24.50 | 1,512.00 | 32 | 1 |
| Compensation and Resettlement | - | 913.26 | 14.65 | 8.40 | 8.40 | 944.71 | 0 | 1 |
| Environmental Mitigation & Monitoring | 1.99 | 29.99 | 30.73 | 20.65 | 104.65 | 188.01 | 10 | 0 |
| Subtotal | 163.19 | 20,540.89 | 28,978.15 | 28,847.86 | 19,562.46 | 98,092.55 | | 75 |
| 2. Equipment and Machinery | | | | | | | | |
| Pumps & motors | - | | | 738.84 | 1,377.23 | 2,116.07 | 60 | 2 |
| Electrical equipment | - | - | - | 1,242.81 | 2,316.67 | 3,559.47 | 25 | 3 |
| Equipment | 10.00 | | | 117.55 | 219.12 | 346.67 | 59 | 0 |
| Vehicles & Machinery | 20.00 | | | 246.76 | 459.98 | 726.75 | 60 | 1 |
| Subtotal | 30.00 | - | - | 2,345.95 | 4,373.00 | 6,748.96 | | 5 |
| 3. Training, Capacity Development & Studies | | | | | | | | |
| Training & capacity development | - | - | 66.70 | 189.90 | 138.20 | 394.80 | 55 | 0 |
| Surveys and Studies | - | 18.67 | - | - | - | 18.67 | 40 | 0 |
| Subtotal | - | 18.67 | 66.70 | 189.90 | 138.20 | 413.47 | | 0 |
| 4. Consulting Services | | | | | | | | |
| International Consultants | 214.00 | 263.00 | 211.50 | 159.00 | 166.50 | 1,014.00 | 80 | 1 |
| National Consultants | 67.20 | 283.08 | 280.37 | 242.11 | 208.51 | 1,081.27 | 70 | 1 |
| Consultant support costs | 120.96 | 141.49 | 130.29 | 121.89 | 80.83 | 595.47 | 58 | 0 |
| Financial Audit | 30.00 | 30.00 | 30.00 | 30.00 | 30.00 | 150.00 | 80 | 0 |
| Subtotal | 432.16 | 717.57 | 652.16 | 553.00 | 485.84 | 2,840.74 | | 2 |
| 5. Project Management | | | | | | | | |
| PCU Operating costs | 121.00 | 161.50 | 161.50 | 161.50 | 161.50 | 767.00 | 3 | 1 |
| 6. Duties & Taxes | 98.73 | 4,123.72 | 5,831.63 | 6,366.47 | 4,925.69 | 21,346.24 | - | 16 |
| Total BASELINE COSTS | 845.08 | 25,562.35 | 35,690.14 | 38,464.68 | 29,646.69 | 130,208.96 | | 100 |
| Physical Contingencies | 10.83 | 732.98 | 1,011.18 | 976.74 | 902.27 | 3,634.00 | 38 | 3 |
| Price Contingencies | 2.68 | 559.30 | 1,321.79 | 1,849.35 | 2,255.89 | 5,989.00 | 46 | 5 |
| Total PROJECT COSTS | 823.31 | 27,366.48 | 37,917.71 | 37,750.65 | 35,973.80 | 139,831.96 | | 108 |
| Interest During Implementation | 3.79 | 129.99 | 634.82 | 1,288.53 | 1,939.32 | 3,996.46 | 100 | 3 |
| Total Costs to be Financed | 827.10 | 27,496.47 | 38,552.53 | 39,039.18 | 37,913.13 | 143,828.42 | | 111 |

F. Contract Award and Disbursement

| Contract Awards (in US\$ million) | | | | | | Disbursements (in US\$ million) | | | | |
|-----------------------------------|--------|--------|--------|--------|----------------|---------------------------------|-------|-------|-------|----------------|
| Year | Q1 | Q2 | Q3 | Q4 | Total | Q1 | Q2 | Q3 | Q4 | Total |
| 2017 | 0.000 | 0.063 | 1.662 | 3.716 | 5.442 | 0.000 | 0.063 | 0.000 | 0.529 | 0.593 |
| 2018 | 0.188 | 0.063 | 13.307 | 21.279 | 34.838 | 0.615 | 0.678 | 0.269 | 2.394 | 3.956 |
| 2019 | 15.389 | 26.400 | 25.606 | 0.063 | 67.459 | 3.552 | 4.636 | 6.875 | 8.037 | 23.100 |
| 2020 | 0.736 | 0.072 | 0.000 | 0.063 | 0.872 | 6.598 | 7.300 | 7.239 | 6.921 | 28.058 |
| 2021 | 0.000 | 0.063 | 0.000 | 0.063 | 0.127 | 6.598 | 6.913 | 6.576 | 6.913 | 27.000 |
| 2022 | 0.000 | 0.063 | 0.000 | 0.000 | 0.063 | 6.598 | 6.913 | 6.598 | 6.850 | 26.959 |
| 2023 | 0.000 | 0.063 | 0.000 | 0.000 | 0.063 | 3.131 | 0.063 | 0.000 | 0.000 | 3.194 |
| Total Contract Awards | | | | | 108.863 | Total Disbursements | | | | 112.859 |



G. Funds Flow Diagram



V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

7. **Results of Financial Analysis.** A summary of the results of the financial analysis for TPS showing the key projected production volumes of water and sewerage and financial performance for the period 2016 to 2027 is presented in the table found in Linked Document (LD) 8 Financial Analysis. The volume of water production over the period grows by 20%. The average water tariff is projected to increase by 214% from UZS517 to UZS1,625/m³ and with an average sewerage tariff increase from UZS379 to UZS1,279/m³. The tariff revisions have been computed following the formula of the government that limits profitability to 10%, and a modest real increase of around 5% will be sufficient during project implementation from 2016 to 2021. However, a significant real increase of about 45% in real terms in addition to inflation will be required in 2022 when the assets come into use resulting in a major increase in depreciation charges and when debt servicing of the ADB loan starts. This is still within the approved formula, and does not lead to a profitability exceeding 10%.

8. The significant increase is attributable to the fact that the ADB-financed project will add about UZS600 billion in assets in 2022, about 20 times the net fixed assets of about UZS30 billion as of 2016. TPS has a highly depreciated network, and this project will only rehabilitate a part of the network covering less than 20% of its population customer base. Rehabilitation of the remaining network is high on the government's agenda, although no cost estimates or investment plans are yet finalized.

9. The covenanted performance indicator ratios all meet or exceed the acceptable levels, indicating that under these assumptions TPS should be a viable business and have sufficient cash balances to fund its operations. Details of the performance indicator ratios can be found in LD8 Financial Analysis. However, as TPS embarks on further capital investments, it is very likely that it will require substantial equity injection and capacity development support, to remain a financially solvent entity.

10. Tables showing the projected Income statement, cash flow statement balance sheets and water and water and sewerage tariffs are included in Financial Analysis linked document to the RRP.

11. **Risk Analysis.** The inherent risk was assessed as Substantial due to country-level risks. Control risk was assessed as Substantial, mainly because a regular internal audit is not conducted by the CRU under MOF for TPS; TPS was only constituted in its present form in December 2015 by consolidating existing smaller *vodokanals*, and is still consolidating its operations; it has no prior experience in implementing a large project supported by an international agency; it will be recruiting staff who may have no or limited experience of ADB-financed projects and a financial manual for the project operations is yet to be prepared.

12. **Risk Mitigation.** The PCU staff of UCSA will provide overall supervision and guidance to the TPS accounting unit in the initial years while the in-house capacity of TPS is developed. Specific mitigation measures recommended as being necessary to address underlying control risks include: (i) TPS to recruit extra accounting staff by 31 March 2017; (ii) a project management team including a qualified international financial management specialist and a qualified national financial management specialist will be recruited to provide necessary supports and to strengthen internal control of PMU and PIU by 30 June 2017; (iii) development of a financial management training plan

and all project financial staff to be trained before and during project implementation; (iv) a financial management manual will be prepared incorporating both government and ADB's requirements by 30 September 2017; (v) TPS to upgrade its accounting software 1C by 31 December 2016 to allow access to all 18 branches; and (vi) the terms of reference for the required external audits to be agreed with the ADB. A private audit firm whose qualifications, experience and terms of reference are acceptable to ADB will be recruited to audit the project financial statements.

Risk Assessment and Mitigation Measures

| Risk | Risk Assessment* | Risk-Mitigation Measures |
|------------------------------------|-------------------------|--|
| Inherent Risk | | |
| Country-specific Risks | M | Private audit firm will audit the project financial statement. |
| Entity-specific Risks | S | TPS shall ensure adequate staff are recruited for project accounting, and ensure professional accounting training is provided to finance staff. |
| Project-specific Risks | M | |
| Overall Inherent Risk | M | |
| Control Risk | | |
| Implementing Entity | S | TPS should ensure its staff will attend professional course training and ADB training on procurement, financial management and disbursement. |
| Funds Flow | M | ADB loan proceeds will finance all project costs excluding taxes, which are exempted by the government. To provide liquidity, ADB direct payment procedures will be used, supplemented by an imprest account for smaller operational costs and expenditures below the minimum claim size for direct payments. |
| Staffing | S | TPS should ensure adequate staff are recruited for the project – by 31 December 2016. Consulting support will be provided with a team of international and national financial management specialists on board by 31 May 2016. Through hands-on training, the newly recruited staff will develop their capacity. PCU staff of UCSA shall provide overall supervision and guidance in project accounting and financial management. |
| Accounting Policies and Procedures | M | A financial management manual will be prepared incorporating both government and ADB's financial management requirements for the project – by 31 August 2017. |
| Internal Audit | S | |
| External Audit | N | Audit of the project's financial statement should be done in accordance with the International Standards on Auditing and by an independent auditor acceptable to ADB. Audit of entity financial statements shall be performed following the National Laws of Uzbekistan by an independent auditor. |

| Risk | Risk Assessment* | Risk-Mitigation Measures |
|--|------------------|---|
| Reporting and Monitoring Information Systems | M | |
| | M | TPS should upgrade the 1C Accounting software by 31 December 2016, to allow all 18 branches to access it for integrated, online accounting. Staff should be trained to operate the financial accounting system. |
| Overall Control Risks | S | |

* Risk assessment: H – High, S – Substantial, M – Moderate, N – Negligible or Low.

B. Disbursement

13. The Loan proceeds will be disbursed in accordance with ADB's Loan Disbursement Handbook (2015, as amended from time to time),⁴ and detailed arrangements agreed upon between the government and ADB. . Online training for project staff on disbursement policies and procedures is available at: http://wpqr4.adb.org/disbursement_elearning. Project staff is encouraged to avail of this training to help ensure efficient disbursement and fiduciary control

14. Before the submission of the first withdrawal application, the 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. The minimum value per withdrawal application set in accordance with the Loan Disbursement Handbook. Individual payments below this amount should be paid by the EA/IA and subsequently claimed from ADB (i) through reimbursement; or (ii) from the imprest/sub-account , unless otherwise accepted by ADB.

15. **Disbursement Arrangements.** The fund flow diagram is provided in Item G. The various procedures to be used are briefly summarized below:

- i. **Direct payment.** For civil works, and consulting services, subject to the minimum value per withdrawal application described in para 14.
- ii. **Commitment Procedure.** For the financing of imported goods and equipment.
- iii. **Imprest Fund.** For individual payments below the minimum value per withdrawal application described in para 14, including for the incremental recurrent costs for the PCU, land acquisition, etc. The Statement of Expenditure procedure will be followed for liquidation of imprest advances, subject to a ceiling of \$100,000 per payment.

16. The PCU will be responsible in preparing disbursement projections, requesting budgetary allocations for counterpart funds, collecting supporting documents and preparing all withdrawal applications to ADB.

17. **Statement of Expenditures.** The SOE procedure may be used for the reimbursement of eligible expenditures or the liquidation of advances to the imprest account. The ceiling of the SOE procedure is the equivalent of \$100,000 per individual payment. SOE records should be maintained

⁴ Available at: http://www.adb.org/Documents/Handbooks/Loan_Disbursement/loan-disbursement-final.pdf

by TPS and made readily available for review by ADB's disbursement and review mission or upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit.⁵

18. **Imprest Fund Procedure.**⁶ To facilitate project implementation through the timely release of loan proceeds, the TPS will establish an imprest account promptly after loan effectiveness at a commercial bank acceptable to ADB. The imprest account is to be used exclusively for the ADB's share of eligible expenditures. The currency of the imprest account will be in USD. The TPS, which established the imprest account in its name, is accountable and responsible for the proper use of advances to the imprest account. All withdrawals from the imprest account will require joint signatures from UCSA and the TPS.

22. The outstanding advance of the imprest account will not at any time exceed the estimated ADB financed expenditures to be paid from the imprest account for the next 6 months. The request for initial and additional advances to the imprest account should be accompanied by an estimate of expenditure sheet⁷ setting out the estimated expenditures for the first six (6) months of project implementation, and submission of evidence satisfactory to ADB that the imprest account has been duly opened. For every liquidation and replenishment request of the imprest account, the borrower will furnish to ADB (a) Statement of Account (Bank Statement) where the imprest account is maintained, and (b) the Imprest Account Reconciliation Statement (IARS) reconciling the above mentioned bank statement against the EA's records.⁸ 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. The imprest account will be established, managed, and liquidated in accordance with ADB's *Loan Disbursement Handbook* and detailed arrangements agreed by the government and ADB. ADB's *Loan Disbursement Handbook* describes which supporting documents should be submitted to ADB and which should be retained by the government for liquidation and replenishment of an imprest account.

19. **Sub-account under the Imprest Account.** A separate sub-account should be established in local currency, and maintained by PCU, to finance the land acquisition resettlement costs, incremental recurrent costs of PCU's operations (including PCU staff salaries, withholding tax and social charges on PCU staff salaries). The sub-account is to be used exclusively for ADB's share of eligible expenditures. PCU should ensure that every liquidation and replenishment of each sub-account is supported by sufficient documentation in accordance with ADB's *Loan Disbursement Handbook* (2015, as amended from time to time). The outstanding advance of the sub-account shall not exceed the equivalent of the PCU's 3 months estimated expenditure.

- i. The PCU shall submit full documentation to the TPS for monthly liquidations, together with a bank statement (within 7 days after the month end).
- ii. The request for replenishment should be accompanied by an estimate of 3 months expenditure.

⁵ Checklist for SOE procedures and formats are available at:
http://www.adb.org/documents/handbooks/loan_disbursement/chap-09.pdf
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-100-Below.xls
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-Over-100.xls
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Operating-Costs.xls
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Free-Format.xls

⁶ Bank charges incurred in the operation of the imprest account may be financed from the loan proceeds.

⁷ Available in Appendix 29 of the *Loan Disbursement Handbook*.

⁸ Follow the format provided in Appendix 30 of the *Loan Disbursement Handbook*.

C. Accounting

20. The TPS will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project following accrual-based accounting following the equivalent national accounting standards. The TPS will prepare project financial statements in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices.

D. Auditing and Public Disclosure

21. The TPS will cause the detailed project financial statements to be audited in accordance with International Standards on Auditing by an independent auditor acceptable to ADB. The audited project financial statements together with the auditor's opinion will be presented in the English language to ADB within 6 months from the end of each fiscal year by the TPS.

22. The audited entity financial statements of TPS, together with the auditor's report and management letter, will be submitted in the English language to ADB within 1 month after their approval by the relevant authority for each financial year. The audit report for the entity financial statements shall include an auditors' opinion on whether the borrower or executing agency was in compliance with the financial covenants contained in the legal agreements.

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

24. 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.

25. The government, and TPS 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.⁹ 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.

⁹ 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.

26. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's Public Communications Policy 2011.¹⁰ After the review, ADB will disclose the audited project financial statements and the opinion of the auditors on the project financial statements no later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter, additional auditor's opinions, and audited entity financial statements will not be disclosed.¹¹

¹⁰ Public Communications Policy: <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>

¹¹ This type of information would generally fall under public communications policy exceptions to disclosure. ADB. 2011. *Public Communications Policy*. Paragraph 97(iv) and/or 97(v).

VI. PROCUREMENT AND CONSULTING SERVICES

27. Procurement capacity assessment of UCSA has been undertaken. Based on the findings of the assessment, the thresholds for procurement of goods and works as well as consulting services have been defined, and the degree of ADB oversight (prior and post review) has been recommended.¹² These are reflected in the procurement plan, Section C.

A. Advance Contracting

28. All advance contracting will be undertaken in conformity with ADB's Procurement Guidelines (2015, as amended from time to time)¹³ and ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).¹⁴ The issuance of invitations to bid under advance contracting will be subject to ADB approval. The borrower, UCSA and the PCU have been advised that approval of advance contracting does not commit ADB to finance the Project.

29. **Advance contracting.** It is envisaged to undertake advance actions for the procurement of project management consultants and detailed design consultants. This will include the preparation of a request for proposal documents and advertisement via the consulting services recruitment notices for ADB's prior review and approval.

B. Procurement of Goods, Works and Consulting Services

30. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines (April 2015, as amended from time to time). International competitive bidding procedures will be used for civil works contracts estimated to cost \$5,000,000 or more, and supply contracts valued at \$2,000,000 or higher. Shopping will be used for contracts for procurement of works and equipment worth less than \$100,000.

31. ADB standard bidding documents for procurement of works dated December 2015 shall be used for the procurement of works. For the procurement of works costing less than \$5,000,000, ADB standard bidding documents for works, small contracts, dated December 2015 shall be used. For the procurement of goods, the ADB standard bidding documents for the procurement of goods dated December 2015 or later edition shall be used.

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

33. All consultants will be recruited according to the *Guidelines on the Use of Consultants by the Asian Development Bank and Its Borrowers* dated March 2013 as amended from time to time. Consulting firms will be engaged using the quality- and cost-based selection (QCBS) method with a standard quality cost ratio of 80:20 to give more weight to quality of proposals. Also, the following consultants selection procedures will be used, LCS, CQS and ICS. The terms of reference for all consulting services are detailed in Section D.

¹² Project's Procurement Capacity Assessment Report and Recommendation is available under Appendix 4 of the Final Report of PPTA 8227-UZB: Second Water Supply and Sanitation Investment Project

¹³ Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>

¹⁴ Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>

C. Procurement Plan

Basic Data

| | |
|---|--|
| Project Name: Tashkent Province Water Supply Development Project | |
| Project Number: | Approval Number: |
| Country: UZBEKISTAN | Executing Agency: Agency "Uzkommunkhizmat" (UCSA) |
| Project Procurement Classification: B | Implementing Agency: Tashkent Provincial Suvokova (TPS) |
| Procurement Risk: Moderate | |
| Project Financing Amount: \$ 143.83 million ADB Financing: \$120.90 million ADF Loan Cofinancing (ADB Administered): N/A Non-ADB Financing: \$22.93 Million (Government – taxes) | Project Closing Date: 30 April 2023 |
| Date of First Procurement Plan: Loan approval date | Date of this Procurement Plan: 13 September 2016 |

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

1. Procurement and Consulting Methods and Thresholds

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

| Procurement of Goods and Works | | |
|---|------------------------------------|----------|
| Method | Threshold | Comments |
| International Competitive Bidding (ICB) for Works | \$5,000,000 ¹ | |
| International Competitive Bidding for Goods | \$2,000,000 ¹ | |
| National Competitive Bidding (NCB) for Works ² | Beneath that stated for ICB, Works | |
| National Competitive Bidding for Goods ² | Beneath that stated for ICB, Goods | |
| Shopping for Works | Below \$100,000 | |
| Shopping for Goods | Below \$100,000 | |

¹ Refer to PAI 3.03 Appendix 2 for International Competitive Bidding

² Refer to Para. 3 of PAI 3.05 for National Competitive Bidding

| Consulting Services | |
|--|----------|
| Method | Comments |
| Quality and Cost Based Selection (QCBS) | 80:20 |
| Quality Based Selection | |
| Consultants' Qualifications Selection ³ | |
| Least-Cost Selection ⁴ | |
| Fixed Budget Selection | |

³ Refer to Para. 29 of PAI 2.02 for Consultants' Qualification Selection

⁴ Refer to Para. 26 of PAI 2.02 for Least-Cost Selection

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

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

| Package Number | General Description | Estimated Value | Procurement Method | Review [Prior / Post/Post (Sampling)] | Bidding Procedure | Advertisement Date (quarter/year) | Comments |
|----------------|---|-----------------|--------------------|---------------------------------------|-------------------|-----------------------------------|-------------|
| TPWS-W-01 | Design, Procurement and Construction of new WTP | 21,094,820 | ICB/DB | Prior | 1S1E | Q2/2017 | Large Works |
| TPWS-W-02 | Transmission Main | 31,798,126 | ICB | Prior | 1S1E | Q2/2017 | Large Works |
| TPWS-W-03 | Distribution system Package 1 | 21,729,223 | ICB | Prior | 1S1E | Q4/2017 | Large Works |
| TPWS-W-04 | Distribution system Package 2 | 28,810,546 | ICB | Prior | 1S1E | Q4/2017 | Large Works |
| TPWS-W-05 | Distribution system Package 3 | 27,040,869 | ICB | Prior | 1S1E | Q2/2018 | Large Works |

ICB: International Competitive Bidding; WTP: Water Treatment Plant; DB: Design Build

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

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

| Package Number | General Description | Estimated Value | Recruitment Method | Review (Prior / Post) | Advertisement Date (quarter/year) | Type of Proposal | Comments |
|----------------|-------------------------------|-----------------|--------------------|-----------------------|-----------------------------------|------------------|-------------------------------------|
| TPWS-CS-01 | Project Management Consultant | 3,251,280 | QCBS (80:20) | Prior | Q4/2016 | FTP | International (Advance Contracting) |
| TPWS-CS-02 | Detailed Design | 890,000 | QCBS (80:20) | Prior | Q4/2016 | FTP | National (Advance Contracting) |
| TPWS-CS-03 | Audit | 192,310 | LCS | Prior | Q3/2017 | BTP | |
| TPWS-CS-04 | Capacity Building Program | 500,000 | QCBS (80:20) | Prior | Q3/2017 | BTP | |

QCBS: Quality and Cost-Based selection; LCS: Least Cost Selection; FTP: Full Technical Proposal; BTP: Biodata Technical Proposal

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

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

| Goods and Works | | | | | | | | |
|-----------------|---------------------|-----------------|---------------------|--------------------|----------------------------|-------------------|-------------------------------|----------|
| Package Number | General Description | Estimated Value | Number of Contracts | Procurement Method | Review [Prior / Post/Post] | Bidding Procedure | Advertisement Date (quarter/) | Comments |

| | | | | | (Sampling) | | year) | |
|-----------|--|---------|---|----------|------------|------|---------|-------|
| TPWS-G-01 | Procurement of utility vehicles & machineries; Package 1 | 840,525 | 2 | NCB | Prior | 1S1E | Q1/2017 | Goods |
| TPWS-W-06 | Operational Control Center | 882,871 | 1 | NCB | Prior | 1S1E | Q4/2020 | Works |
| TPWS-W-07 | Office Renovation & Central warehouse | 417,200 | 1 | NCB | Prior | 1S1E | Q1/2018 | Works |
| TPWS-G-02 | Procurement of machineries and O&M tools | 76,030 | 1 | Shopping | Prior | 1S1E | Q1/2017 | Goods |

| Consulting Services | | | | | | | | |
|---------------------|---|-----------------|---------------------|-----------------------------|-----------------------|-----------------------------------|------------------|----------|
| Package Number | General Description | Estimated Value | Number of Contracts | Recruitment Method | Review (Prior / Post) | Advertisement Date (quarter/year) | Type of Proposal | Comments |
| TPWS-T-01 | Gender Awareness and Hygiene Promotion Training | 43,390 | 1 | CQS / Individual Consultant | Prior | Q2/2017 | BTP | |

CQS: Consultants' Qualifications Selection; Biodata Technical Proposal

B. Indicative List of Packages Required Under the Project

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

| Goods and Works | | | | | | | |
|-----------------|---------------------|------------------------------|-------------------------------|--------------------|---------------------------------------|-------------------|----------|
| Package Number | General Description | Estimated Value (cumulative) | Estimated Number of Contracts | Procurement Method | Review [Prior / Post/Post (Sampling)] | Bidding Procedure | Comments |
| | | | | | | | |

| Consulting Services | | | | | | | |
|---------------------|---------------------|------------------------------|-------------------------------|--------------------|-----------------------|------------------|----------|
| Package Number | General Description | Estimated Value (cumulative) | Estimated Number of Contracts | Recruitment Method | Review (Prior / Post) | Type of Proposal | Comments |
| | | | | | | | |

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

None

D. Non-ADB Financing

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

E. National Competitive Bidding

1. General

The procedures to be followed for national competitive bidding shall be those set forth in the applicable resolutions of the cabinet of ministers (COM) of Republic of Uzbekistan with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the ADB *Procurement*.

2. Eligibility

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 stated in section I of the *Procurement Guidelines*. Bidders must be nationals of member countries of ADB, and offered goods, services, and works must be produced in and supplied from member countries of ADB.

3. Prequalification

Normally, post-qualification shall be used unless explicitly provided for in the loan agreement/procurement plan. Irrespective of whether post qualification or prequalification is used, eligible bidders (both national and foreign) shall be allowed to participate.

4. Registration and Licensing

- (i) Bidding shall not be restricted to pre-registered/licensed firms.
- (ii) Where registration or licensing is required, bidders (i) shall be allowed a reasonable time to complete the registration or licensing process; and (ii) shall not be denied registration/licensing for reasons unrelated to their capability and resources to successfully perform the contract, which shall be verified through post-qualification.
- (iii) Foreign bidders shall not be precluded from bidding. If a registration or licensing process is required, a foreign bidder declared the lowest evaluated bidder shall be given a reasonable opportunity to register or to obtain a license.

5. Bidding Period

The minimum bidding period is 28 days prior to the deadline for the submission of bids.

6. Bidding Documents

Procuring entities should use standard bidding documents for the procurement of goods, works and services acceptable to ADB.

7. Preferences

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

8. Advertising

Invitations to bid shall be advertised in at least one widely circulated national daily newspaper or freely accessible, nationally known website allowing a minimum of 28 days for the preparation and

submission of bids.

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

9. Bid Security

Where required, bid security shall be in the form of a bank guarantee from a reputable bank.

10. Bid Opening and Bid Evaluation

- (i) Immediately after the date and time set for the deadline for bid submission, bids shall be opened in public. A record of bid opening shall be prepared by the executing agency, or implementing agency, or the contracting authority, and such record shall be distributed to all bidders.
- (ii) Evaluation of bids shall be made in strict adherence to the criteria declared in the bidding documents and contracts shall be awarded to the lowest evaluated bidder.
- (iii) Bidders shall not be eliminated from detailed evaluation on the basis of minor, non-substantial deviations.
- (iv) No bidder shall be rejected on the basis of a comparison with the contract cost estimate(s) and budget ceiling(s) set by the borrower/executing agency without ADB's prior concurrence.
- (v) A contract shall be awarded to the technically responsive bidder that offers the lowest evaluated price, and meets the qualifying requirements. Negotiations shall not be permitted.
- (vi) Price verification shall not be applied.

11. Rejection of All Bids and Rebidding

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

12. Participation by Government-Owned Enterprises

Government-owned enterprises in Uzbekistan shall be eligible to participate as bidders only if they can establish that they are legally and financially autonomous, operate under commercial law and are not a dependent agency of the contracting authority/executing agency/implementing agency. Furthermore, they will be subject to the same bid and performance security requirements as other bidders.

13. Right to Inspect/Audit

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.

14. Fraud and Corruption

- (i) 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, or coercive practices in competing for the contract in question.
- (ii) The Asian Development Bank (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, or coercive practices in competing for, or in executing, ADB-financed contract.

15. Pre-Shipment Inspections

Pre-shipment inspections, if necessary, shall be carried out by an independent reputable testing authority/surveyor in the supplier's country for reasons of sound engineering practice and economy and efficiency in project implementation.

16. Disclosure of Decision on Contract Awards

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

D. Consultant's Terms of Reference

34. Two large consulting support packages will be provided under the project, as detailed below:

1. PROJECT MANAGEMENT CONSULTANTS

35. An international consulting firm with national experts experienced in water supply projects is required to provide assistance on tendering, evaluation and contract award to the successful Bidder, project management and supervision including review and audit the detailed engineering design, procurement, construction, erection, testing and commissioning, environmental safeguards monitoring, issue of necessary progress reports, and improve the agency's project management capacity. The Consultants will also be responsible for the financial management of Project-related activities including establishing a management information system, assistance in accounting, and issuance of payments certificates, etc. The Consultants will ensure that the Project is built on schedule in a satisfactory manner to the required standards within budget.

36. The consulting firm will be recruited using quality-and-cost-based selection (90:10) with full technical proposal in accordance with ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time. For all international positions, Russian language skills are desirable and English language skills are compulsory. For national experts, English language skills are desirable.

37. The services to be provided by the Consultants include but are not limited to, the following:

- i. Provide day-to-day support to the PCU and TPS in overall management of project implementation, involving coordination of activities, monitoring, maintenance of records, certification of works, and progress reporting to relevant authorities.;
- ii. Provide assistance to the PCU in managing procurement activities for Works, Goods, and Service contracts under the project;
- iii. Provide construction supervision, involving supervision of contractors to control quality of construction and installation of equipment, implementation time, and cost, from inception to completion. The PMC shall be responsible for the supervision of the Works during course of construction. The Consultant will also provide services during the Defects Liability Period of one year following the taking-over of the works and up to the issuance of the Certificate of Completion. The Consultants shall perform all duties that may be required pursuant to Contracts entered into between the Client and the Contractor where Consultants are designated as "the Project Manager" in such Contracts;
- iv. Develop a Project Management Information System (PMIS) including PPMS, project financial information and accounting system and carry out its operation;
- v. Prepare terms of reference, technical specifications, bidding documents and invitation for bidders for the procurement of a Design-and-Build (DB) Contract for the design and construction of the new Water Treatment Plan (WTP);
- vi. Provide assistance to the PCU/TPS for the implementation of the Resettlement Plan and to further carry out monitoring of social impacts on affected persons (AP);
- vii. Supervise the activities of the Detailed design consultant (Design Institute) which will be in charge of the development of design and bidding documents for the rehabilitation and the new construction of the water supply networks and pumping stations;
- viii. Provide assistance to the PCU/TPS to procure and contract works for the decommissioning of the existing, obsolete water treatment plant and make sure that disposal of demolished material is recycled or disposed of in accordance with relevant national norms and the recommendations formulated in the Environmental Management Plan (EMP);
- ix. Provide assistance to the PCU/TPS to procure utility vehicles and maintenance machineries through national/international shopping and national competitive bidding procedures;
- x. Provide inputs to PCU/TPS to procure design-and-build type contract works for the implementation of a remote controlled operation control center (OCC) monitored via a SCADA system;
- xi. Elaborate methodologies for construction supervision, assessment of contractor performance and reporting to the attention of the national design team and the PCU/TPS construction supervisors;
- xii. Review and approve the training materials and supervise the implementation of training programs to be provided by contractors and suppliers to the TPS technical personnel in charge of the operation and maintenance (O&M) of the newly constructed regional water supply system;
- xiii. Plan and review the final commissioning tests being conducted upon completion of each construction package, namely network, pumping stations, WTP; approve acceptance of performance in accordance with the targets set in the tender documents; approve the content of the O&M manuals and advise the PCU/TPS on delivery of certificate of performance;
- xiv. Plan the monitoring activities to be carried out during the damages and liability period and advise the PCU for delivery of certificates of final acceptance of the newly constructed and rehabilitated infrastructure;

- xv. Provide assistance to the PCU to elaborate TORs and subsequently select a specialized consultant for the provision of trainings foreseen under the capacity building program;
- xvi. Provide guidance for the implementation of the EMP during the pre-construction and construction periods;
- xvii. Coordinate the implementation of the Capacity Building Program and provide assistance to the PCU preparation of reports on Capacity Building Program;
- xviii. Provide guidance and support to the PCU/TPS to implement the EMP and to further carry out monitoring of the effectiveness of the EMP;
- xix. Provide support and guidance to PCU/TPS to implement the Gender Action Plan (GAP) and to further conduct monitoring on possible social repercussions of the GAP;
- xx. Organize and supervise the implementation of the LARP.
- xxi. Prepare additional studies including social-economic, technical and environmental surveys as needs arise;
- xxii. Review all contractual documents, drawings and warn the Executing and Implementing Agencies for inconsistencies/deficiencies and take necessary corrective action with Client's approvals;
- xxiii. Convene and/or attend all meetings required to manage and carry out the services necessary for project activities, including periodic meetings with contractors to review progress, and prepare and distribute copies of the agenda and the meeting records.
- xxiv. Provide on the job training and guidance to the PCU/TPS staff in the areas such as, Project Management, Customer Management, Social Safeguards, Gender Mainstreaming, PPMS Reporting and Evaluation, Sanitation Awareness & Hygiene Program, Communication & Participation Component and others as needed to ensure successful project implementation.

QUALIFICATION OF THE FIRM

38. The Consultant must demonstrate that it has the following experience be within the last 15 years:
- i. extensive project management experience including finance, procurement and construction supervision; and
 - ii. environmental and social improvement projects:
 - iii. institutional strengthening at agency and governmental level.

STAFFING

39. The Consultants shall provide sufficient qualified and experienced staff to ensure proper project management, procurement services, and construction supervision of the works and engineering services both during the construction period and during the Defects Liability/Maintenance Period. To guarantee a timely implementation of the Works and efficient use of financial resources, the Consultants shall maintain a continuous presence of its Key Personnel on the site of the Works until construction is completed and all major facilities are commissioned. The Consultant personnel shall consist of key and supporting staff.
40. The personnel requirement for the consulting works as outlined above is estimated to be as follows:

| Professional Staff | Type | Quantity | Total Person months |
|--------------------|------|----------|---------------------------|
|--------------------|------|----------|---------------------------|

| Professional Staff | Type | Quantity | Total Person months |
|---|---------------|-----------------|----------------------------|
| <u>Key Personnel</u> | | | |
| International | | | |
| K1- Project Manager/ Water Supply Engineer | International | 1 | |
| K2- Water Supply Engineer /Water Treatment Specialist | International | 1 | |
| K3- Electromechanical Engineer | International | 1 | |
| K4- Mechanical Engineer | International | 1 | |
| K5- Financial Specialist | International | 1 | |
| K6- Procurement Specialist | International | 1 | |
| K7- Social and Resettlement Specialist | International | 1 | |
| K8- Environmental Specialist | International | 1 | 2 |
| K9- Institutional and service reform specialist | International | 1 | 1 |
| Sub-total | | 9 | 69 |
| National | | | |
| K10- Deputy Team Leader/ Water Supply Engineer | National | 1 | 49 |
| K11- Procurement expert | National | 1 | 41 |
| K12- Social, Gender and Resettlement Specialist | National | 1 | 15 |
| K13- Finance specialist | National | 1 | 41 |
| K14- Environmental Specialist | National | 1 | 15 |
| K15- Construction Supervision Specialist | National | 5 | 240 |
| Sub-total | | 10 | 404 |
| Total | | 16 | 473 |

PREFERRED QUALIFICATIONS, ROLES AND RESPONSIBILITIES

K1 - Project manager / Water Supply Engineer (1 International)

41. Preferred Qualifications and Experience: The international project manager (PM) will have a solid international experience in the organization and implementation of water supply projects in Central Asian countries. Working experience in Uzbekistan and accessory working records in water supply infrastructure is regarded as a supplementary asset. The candidate PM will have a master degree in civil or hydraulic engineering or equivalent. Experience in procurement and construction supervision is also required. He/she should have excellent project management and interpersonal skills, sound experience in project management of a team composed of international and local experts. He/she should be able to demonstrate that he/she has occupied similar position on at least three

similar projects. He/she should have proven knowledge of FIDIC based and/or ADB conditions of contract.

42. General Roles and Responsibilities: He/she will work in close coordination with the PCU Director and will undertake the following main tasks:

- i. Provide support to the PCU and ensure liaison with the TPS and Tashkent Province administration, UCSA, the Interagency Council , ADB, the Ministry of Finance (MOF) and other relevant stakeholders;
- ii. Provide overall guidance and direction for all aspects of PCU activity regarding project preparation, implementation, operations and maintenance training, monitoring, and evaluation, land management, social issues, as well as related capacity development;
- iii. Review procurement plans updated by the procurement experts and ensure the timely preparation of design and tender documents relative to all civil works contracts;
- iv. Provide guidance and technical direction to the Design Institute undertaking the preparation of detailed designs and tender documents for the procurement of works and goods;
- v. Make sure that all design documents are consistent with national and international norms as applicable;
- vi. With the advice of procurement experts make sure that all tender documents, procurements procedures and modes of procurement are in accordance with the relevant ADB guidelines on procurement under ADB financed Projects;
- vii. Assist the PCU and the tender evaluation commission in the process of evaluating tender documents and awarding contracts to contractors and suppliers, as needed;
- viii. Ensure the timely fielding of contractors and implementation of all contract packages in accordance with agreements entered into in the course of the project;
- ix. Receive comments and copies of field reports by construction supervisors; review work reports and claims for payments prepared by contractors and suppliers and formulate relevant recommendations to the PCU before submission for payment;
- x. Assisted by the procurement specialists, provide advice to the PCU on Contractor claims for time extension, change orders, and other critical decisions in the course of the Project;
- xi. Take the lead in the preparation of tender documents for the procurement of the design and Build Contractor for the construction of the new Kadirya WTP and assist the PCU throughout the process of tender evaluation and awarding of the contract;
- xii. Provide advice and support for the preparation of TOR for the selection of consultants for the implementation of the Capacity-building program;
- xiii. Provide support for the preparation of workshops and other on-the-job type of training related to the Capacity building program; supervise the preparation and the delivery of on-the-job training and workshops by contractors and suppliers;
- xiv. Develop, with the input of the various sector engineering specialists, a set of performance indicators and relevant simple templates to be further used to monitor the performance of the newly constructed water supply infrastructure;
- xv. Supervise the preparation and the implementation of commissioning tests; review the Operation and Maintenance (O&M) manuals and the commissioning tests reports; Provide advice to the PCU on delivery of certificate of completions;
- xvi. Review reports of construction supervisors during the liability period; coordinate the instructions to Contractors for additional works; provide advice to the PCU for delivery of certificates of final acceptance and release of Performance warranty bonds;
- xvii. Supervise the implementation of the EMP and appropriate reporting;
- xviii. Prepare quarterly reports and program implementation review and revised implementation plan;

- xix. prepare annual project progress report including reviews of the investment plan and on this basis, provide advice and assistance to PCU, TPS and ADB for the review of the overall Project implementation;
- xx. Assist the PCU in the preparation of the an overall Project completion report and provide relevant inputs concerning needs for O&M;
- xxi. Assist the PCU and ADB project officer and staff members during fact-finding and other missions
- i. For the civil work contracts act as an Engineer/Project Manager appointed by the Client to oversee the execution of the Work contracts on his behalf. The FIDIC form of contract specifies a large number of duties and responsibilities which are assigned to the Engineer/Project Manager relating to the execution of the contract. For these purposes he shall organize his presence in the project districts.

K2 - Water supply engineer/ water treatment specialist (1 International)

43. Preferred Qualifications and Experience: The international water supply and water treatment specialist will have university degree in civil or hydraulics or environmental engineering or other equivalent master degree and no less than 10 years referred experience in the implementation of water treatment plants (WTP) and water supply projects in general. Work experience in Central Asia and in Uzbekistan would be regarded as a supplementary asset.

44. General Roles and Responsibilities: He/she will work in close connection with and report to the PM, and undertake the following main tasks:

- i. Prepare technical specifications and coordinate the preparation of tender documents for the procurement of the Design and Build Contractor for the construction of the new Kadiya WTP;
- ii. Provide the necessary inputs for the elaboration of the guide drawings to be included in the tender documents as well as for the preparation of the Owner's cost estimates;
- iii. prepare bills of quantities to be included in the tender documents based on the engineering design;
- iv. In collaboration with the Procurement specialist make sure that the tender documents are prepared to national standards and in accordance with ADB procurement guidelines and contract documents;
- v. prepare a list and specification of tools, equipment, and materials for maintenance and repair, kits to be included in the bill of quantities;
- vi. Provide technical advice to the tender evaluation commission during the evaluation of the bids relative to the construction of the new Kadiya WTP as well as inputs to the bid evaluation report as needed;
- vii. Provide timely inputs during the construction of the WTP; elaborate a methodology to be followed by the construction supervisors in order to secure appropriate monitoring of the construction of the new WTP;
- viii. Provide inputs for the preparation of on-the-job training in O&M of future WTP operators; review the training schedules prepared by the Contractor and propose amendments as appropriate; supervise the implementation of the training sessions;
- ix. Elaborate a set of performance parameters to be used for monitoring the performance of the WTP during the commissioning and further during the operation of the WTP;
- x. Assist during the commissioning of the newly constructed WTP; provide advice on acceptance, review the O&M manuals provided by contractors and suppliers;
- xi. Provide instructions to the PCU to conduct supervision during the damage and liability period and to report accordingly;
- xii. Provide timely inputs to periodical and final reports as required.

K3 - Electromechanical engineer (1 International)

45. Preferred Qualifications and Experience: The International electromechanical engineer will have a university degree in electromechanical engineering and a minimum of 10 years practical experience in the design and implementation of industrial electromechanical installations and electronic controls.

46. General Roles and Responsibilities: During his/her assignment with the national electrical engineer will:

- i. Assess the requirement of electrical supply for the operation of boilers and all hot water plants, hot and cold water pumping equipment and the water pumping station in project districts;
- ii. Provide inputs to technical specifications and for the supply and installation of electromechanical equipment all pumping stations including for electronic controls and make that the equipment to be delivered and installed is in accordance with national and norms as per requirements;
- iii. Provide assistance for the preparation of technical specifications of the electromechanical components of the new Kadirya WTP to be included in the tender documents;
- iv. Provide technical assistance and advice to the tender evaluation committee during the evaluation of tender documents;
- v. Provide inputs to the establishment of a set of performance indicators; assist during commissioning pumping stations and other equipment to be delivered and installed under WTP and further during the damage liability period;
- vi. Review operation and maintenance manuals of control systems delivered by contractors and suppliers pumps and other electro-mechanic equipment and provide comments or inputs as required to maintenance plans, and their application;
- vii. Assist and provide support as required during the delivery of on-the-job training by contractors and suppliers to the district heating distribution operators;
- viii. Provide inputs to periodical reports as required.

K4 - Mechanical engineer (1 International)

47. Preferred Qualifications and Experience: The international Mechanical Engineer will have a university degree in mechanical engineering and 10 years referred international experience in the design and supervision of construction of water supply systems, pipe network optimization and pumping facilities. He/she is expected to be conversational with pressure pipe modeling software.

48. General Roles and Responsibilities: He/she will work closely with the PM and the water treatment specialist. In the Project he/she will:

- i. Provide inputs for the design, and the technical specifications of the water supply network and the pumping equipment.
- ii. Carry out the hydraulic calculations and determine the dimensions of pipelines and hydraulic characteristics of the pumps to be procured and installed in the newly constructed or rehabilitated pump station ;
- iii. Provide inputs to draft layouts of the new pumping stations buildings;
- iv. Provide inputs for the preparation of technical specifications and performance schedules of pipelines, pumps and related appurtenances;
- v. Review tender documents for the design-and-build contract and ensure that equipment specified in tender documents is compatible with national norms and requirements;

- vi. Elaborate draft guide drawings illustrating the assembly and housing of the pumps in the new and rehabilitated pump stations;
- vii. Provide inputs for the preparation of BOQs for pumps and controls equipment to be included in the tender documents;
- viii. Provide assistance as required during on-the-job trainings and workshops delivered by the design-and-Build contractor and suppliers regarding water pipe construction, testing and maintenance;
- ix. Provide guidance to the construction supervisors on best procedures in carrying out conducting supervision and reporting;
- x. Review operation and maintenance manuals relative system operation and water pipe maintenance delivered by the contractors and suppliers and provide comments or inputs as required to maintenance plans, and their application;
- xi. Assist during commissioning tests and further during the damage liability period and formulate pertinent comments to the attention of the PCU;
- xii. Provide inputs to quarterly, semi-annual and annual reports as needed.

K5 - Financial expert (1 International)

49. Preferred Qualifications and Experience: The international finance expert will have a master degree in finance and/or economics, or be a chartered accountant. He/she will have at least 10 years of proven experience of working in program/project finance, accounting and financial reporting under ADB and/or other International Donor assisted programs and is expected to be conversational with Financial Management Systems (FMS).

50. General Roles and Responsibilities: He/she will report to the PM and work closely with PCU finance management specialist and the accountant. Under the Project the international Finance specialist will:

- i. work closely with the PM to develop the project annual work plans and budget;
- ii. Identify, procure and set up a financial management system (FMS) to be procured and used during the implementation of the Project and further transferred to the TPS;
- iii. elaborate and propose procedures for setting-up and maintaining consolidated project accounts throughout the implementation of the project;
- iv. Provide assistance for the preparation of the first annual work plan and budget and of work plan and budget for the subsequent Project's years as well as in updating of detailed cash flow projections;
- v. Provide assistance for the periodical review of the work plan and budget of the Program;
- vi. Provide assistance to prepare draft Loan withdrawal applications for the payment of eligible Program costs;
- vii. Provide assistance to PCU in preparing terms of reference for auditing all project accounts, recruit project auditor, and following up on the comments/recommendations of the auditor;
- viii. Assist the PCU in preparing the Project financial progress reports as required by ADB; provide required inputs and information necessary for the preparation of periodical progress reports and completion report;
- ix. Provide advice on capacity building needs of PCU and TPS staff, review financial management capacity building programs proposed by the suppliers of the FMS software, and provide assistance during the delivery of training sessions;
- x. Liaise with the financial specialists selected for the delivery of training in financial management under the Capacity Building Program and provide relevant inputs and material for training preparation as required;

- xi. Provide inputs as needed for the preparation of the TOR for the recruitment of consulting services for the implementation Capacity Building Program;
- xii. Monitor program expenditures, and supervise the quarterly and annual financial reports during the first Program' year;
- xiii. Provide input to PCU on carrying out review and consolidating monthly financial statements and requests for payment by contractors and service providers and assist the PCU in the process of approval for payment release;
- xiv. At year 2 of the Project carry out a review and update the Financial Management Assessment of the EA and IA

K6 - Procurement expert (1 International)

51. Preferred Qualifications and Experience: The Procurement Expert will be a qualified engineer or quantity surveyor or procurement specialist with extensive demonstrated knowledge of procurement systems and processes. He/she will have at least 10 years of experience in procurement of civil works, goods and services in donor funded water supply or other infrastructure development projects and demonstrate strong familiarity with ADB's procurement guidelines and procedures. He/she will have specific experience in preparing, evaluating and managing tender for design, supply and installation of plant.

52. General Roles and Responsibilities: Under the project the procurement expert will:

- i. Review all bidding documents prepared by the design institute for the procurement of goods and works and make sure that such documents are in accordance with ADB Procurement Guidelines (April 2015 and as updated from time to time);
- ii. Provide support in the process of selecting consultants and other service providers; review the TORs and make sure that the procedures of selection are in accordance with the *Guidelines on the Use of Consultants by Asian Development Bank and Its Borrowers* (March 2015) and as updated from time to time);
- iii. Liaise with the Expert responsible for Procurement under the "Capacity Building" component of the Project and provide project related support for the preparation of the training modules;
- iv. Assist the PCU to carry out annual review of the Procurement Plan;
- v. Assist the PCU in all phases of selecting international and national consultants, including: a) request for expression of interest, b) shortlisting and invitation to submit proposals, c) evaluation of proposals and selection of consultants, d) negotiations and contract award;
- vi. Review all bid documents for procurement of works and goods prepared by Consultants, particularly in relation to possible National Competitive Bidding procedures and to the conditions of contract and provide relevant advice as needed;
- vii. Assist the PCU procurement specialist and the tender evaluation committee in the tendering process for the procurement of works and goods; assist for; (a) the preparation and publication of invitations to bid, (b) answers to bidders queries, (c) evaluation of tenders; (d) preparation of tender evaluation reports;
- viii. Assist in organizing, bidder site visits, if applicable;
- ix. Work together with the international and the PCU procurement specialists to coordinate the processes of non-objection by the ADB, during the procedures of evaluations of tenders and consultant's proposals;
- x. Work together with the international procurements specialist to support the PCU project manager for the preparation of the necessary documentation for contract signing and consultant and contractor mobilization;
- xi. Provide inputs to periodical and annual reports as required.

K7 – Social and resettlement specialist (1 International)

53. Preferred Qualifications and Experience: Masters in Planning/ Social Sciences with at least 10 years' experience in design of resettlement plans and experience in implementing resettlement plans as part of donor supported projects, preferably with the ADB. The specialist should be conversant with ADB Safeguard Policy Statement. Experience in the same region in Central Asia will be desirable with specific importance to experience in Uzbekistan.

54. General Roles and Responsibilities: The work for the social and resettlement specialists under the management and supervision will broadly be segregated in to two parts such as (i) Finalization and Updating of draft LARP during detailed design and (ii) assisting the implementation of LARP including disbursement of compensation and assistance and preparation of monitoring report. The social and resettlement specialists in the project management consultancy will assist in the overall supervision of the projects and ensure that LARP is implemented in a smooth and timely manner in accordance with the provisions of the LARP. They will closely work with PCU to ensure displaced persons are compensated before displacement occurs, including ongoing rehabilitation measures. His/her main duties and responsibilities will be:

During Detailed Design

- i. Review of the technical information on detailed design for project sites and alignment as collected by the national social specialists and survey team;
- ii. Verify the census and DMS survey based on the detailed and final design;
- iii. Finalizing the data analysis on the updated census and DMS data;
- iv. Finalizing and Updating the draft LARP prepared during PPTA;
- v. Submission of final LARP to the PCU and its social and resettlement specialist;
- vi. Together with PCU, disclosure of the final LARP;
- vii. Assist in setting up relevant institutions responsible for LARP implementation;
- viii. Updating the Monitoring format based on the final impact;
- ix. During Implementation and Supervision
- x. Verify the data base of all the affected households and their eligibility and entitlement based on the final LARP;
- xi. Assist in disbursement of compensation and assistance and ensure that affected persons are compensated as per the LARP before commencement of civil works in relevant section;
- xii. Review, monitor and evaluate the effectiveness with which the LARP is implemented, and recommend necessary corrective actions to be taken. Advise on corrective measures where necessary to the PCU;
- xiii. Assist PCU in preparing the first semi-annual monitoring report;
- xiv. Provide inputs to periodical and annual reports as required.

K8 - Environmental Specialist (1 International)

55. Preferred Qualifications and Experience: The Environmental Specialist will have a degree in natural or environmental sciences and no less than 10 years of experience in dealing with similar tasks under international donor financed development projects in Uzbekistan. Knowledge of ADB environmental policy and experience with the application of ADB environmental guidelines is regarded as an important asset.

56. General Roles and Responsibilities: The environmental specialist will work in close collaboration with the PCU, the Social and resettlement Specialist and will be under the leadership of the PM. The environmental specialist will, inter alia, carry out the following activities:

- i. Provide the necessary inputs for the implementation of the EMP using the compliance monitoring checklist included in the project IEE;
- ii. Provide inputs to the national Social and Environmental Specialist to supervise the pre-commissioning baseline monitoring following the Mitigation and Monitoring guidelines provided in the IEE;
- iii. Organize analysis of water, air and soils as specified in the EMP;
- iv. Monitor and report on effectiveness of management of waste proceeding from the dismantling of components of the existing WTP in Kadirya and of the water distribution centres (WDC) being rehabilitated paying particular attention to the handling of removed debris until disposal or recycling and landscaping;
- v. Propose and elaborate reporting formats to be further used by the national Social and Environmental Specialist make sure that results of monitoring are reported in quarterly, bi-annual, annual reports and in the Project completion report for submission to the PCU, UCSA and ADB as required;
- vi. Provide inputs to the PCU in dealing with contractors for the implementation of the EMP and supervise the compliance of the Contractor in implementing the Environmental mitigation measures;
- vii. Prepare specifications to be included in the Bills of quantities (BOQ) for Contractors which will be in charge of: i) carrying out the EMP as specified in the IEE, and ii) conduct environmental monitoring including measurements and observations on dust and air pollution during construction in accordance with the Quarterly Compliance Monitoring Checklist for Contractor;
- viii. Assist the PCU in dealing with the road Police Department for the preparation of traffic emergency plans and temporary deviations of traffic during construction;
- ix. Provide guidance to the design and build contractor to prepare a sludge management plan of the new WTP 6 months before commissioning of the Plant; open a dialog with and involve TPS to endorse due responsibility for environmentally compatible management of the sludge during the long term operation of the WTP;
- x. Prepare a methodology and a checklist review for supervision of the EMP completion and relevant report to be prepared by Contractors and assist PCU and TPS to obtain timely such reports;
- xi. Provide inputs and methodology to PCU and TPS to: i) prepare and maintain a grievance redress mechanism, ii) establish a grievance redress committee (GRC), and iii) carry out monitoring on effectiveness; make sure that: i) GRC will have strong female representation, and ii) the grievance process is implemented effectively, according to the plan and schedule in the IEE;
- xii. Provide inputs to periodic and annual reports as applicable.

K9 - Institutional and service reform specialist (1 International)

57. Preferred Qualifications and Experience: The Institutional and Service Reform Specialist shall have about 10 years of professional experience in institutional improvement and reform of water or similar public utility companies. H/she should have preferably an economic or engineering background and is expected to prove a strong background community and communal services institutional analysis and development, particularly in the water supply and sanitation sector. A proven knowledge of the sector regulatory framework of Uzbekistan would be regarded as a certain supplementary asset.

58. General Roles and Responsibilities: Under the supervision of the PM and deputy PM, the institutional and service reform specialist will:

- i. Review and define the institutional structure, mandates, staff requirements, and job descriptions and qualifications of TPS;

- ii. Prepare service standards and key performance indicators that are clearly defined and measurable, to be reported by the water utilities;
- iii. Based on staff requirements, assess capacity requirements for staff, and prepare and implement a capacity development program for putting in place adequate capacity in TPS focusing on technical aspects; and co-lead implementation of the capacity development program;
- iv. Develop a monitoring framework for water utilities reflecting the service standards and key performance indicators, and assist TPS in undertaking monitoring and producing reports;
- v. Advise UCSA and other relevant Government stakeholders on international best practices for water sector regulation and provide specific guidance considering the context of Uzbekistan, mainly from a technical viewpoint; and
- vi. Suggest suitable changes aimed to render TPS more autonomous operationally and financially and to incentivize and its district branches to improve operating efficiency;
- vii. Provide inputs for adequate reform in the WSS sector institutional structure, including operational contracts, mandates, staff requirements, and job descriptions and qualifications of TPS personnel;
- viii. Assess requirements for capacity building of TPS and district branches personnel in accordance with their mandates;
- ix. Liaise with the consultants in charge of providing training in "Public utility management" module under the Capacity Building Program and provide support with specific examples and eventually participating to selected workshops sessions;
- x. Provide inputs to periodic and annual reports as required.

K10 - Deputy Project Manager/Water Supply Engineer (1 National)

59. Preferred Qualifications and Experience: The Deputy Project Manager will have a degree in civil engineering or hydraulic engineering or equivalent. He/she will have no less than 10 years record experience in design and implementation of urban infrastructure projects financed by international donor. English proficiency is a requirement. Experience with ADB procedures in procurement practices is a supplementary asset.

60. General Roles and Responsibilities: The deputy project manager will work in close collaboration with and report directly to the PMC project manager and will be mainly in charge of the following tasks:

- i. Assist the PM in the preparation and review of sub-project implementation schedule, training programs;
- ii. Represent the Consultant in the absence of the PM: participate to official meetings and carry out day-to-day transactions with the PCU, TPS, UCSA and other relevant stakeholders;
- iii. Assist the PM in coordinating the activities of the Design Institute; review design and tender documents, make sure that all documents are in accordance with required national standards and ADB requirements;
- iv. Provide assistance to the procurement experts to review and update procurement plans;
- v. Review construction drawings and technical specifications prepared by the design institute and formulate comments to the PM and the PCU project manager as applicable;
- vi. Review the as-built drawings prepared by the contractors, formulate comments and requests for amendments as applicable;
- vii. Review the construction drawings, technical specifications and work plans proposed by the design and build contractor in charge of the construction of the new Kadirya WTP

- as well the relevant as-built drawings and advise the PM and the PCU project manager accordingly;
- viii. Provide the necessary information and other support as needed to the PCU in the processes of obtaining clearances and access to land as well as during submission of project documents to the State expertise commission;
 - ix. Provide as required, technical assistance to the tender evaluation commission during tender evaluation and reporting;
 - x. Assist the PM in the preparation of construction supervision programs to be implemented by construction supervisors; conduct training and coordinate activities of construction supervisors and supervise testing of materials and quantities of work performed; review and improve as needed the reporting formats;
 - xi. Coordinate the consolidation of daily, weekly and monthly works and equipment delivery reports submitted by contractors and suppliers; control and approve certificates of origin of delivered equipment;
 - xii. Contribute to supervision of the preparation and the delivery of on-the-job training and workshops by contractors and suppliers;
 - xiii. Supervise the commissioning tests; review Operation and Maintenance (O&M) manuals and the commissioning tests reports;
 - xiv. Conduct inspections during the damage liability period and provide to the PM and to the PCU project manager;
 - xv. Assist during the preparation and delivery of practical trainings organized by contractors and suppliers; review the O&M manuals;
 - xvi. Assist during meetings and workshops with stakeholders;
 - xvii. Provide as needed inputs for the quarterly, annual and project completion reports.

K11 - Procurement Specialist (1 National)

61. Preferred Qualifications and Experience: The national procurement specialist will be a qualified expert with a university degree in civil engineering or finance-economics. He/she will have no less than 5 years of experience in procurement of civil works, goods and services under infrastructure projects. He/she will have specific experience in preparing, evaluating and managing tender for design, supply and installation of plant. In addition to being well acquainted with National procurement procedures and regulations, knowledge of ADB or other international donor organization procurement guidelines and procedures is deemed essential.

62. General Roles and Responsibilities: The Procurement expert and will report directly to the TL and will work in close contact with the engineering team. Responsibilities of the International procurement expert will include:

- i. Assist the design institute in the preparation of tender document for the procurement of goods, works, in accordance with *ADB Procurement Guidelines* (April 2015 and as amended from time to time);
- ii. Assist the PCU and the PM to procure services and consultancies; review TOR and make sure that the procedure of selection is in accordance with the *Guidelines on the use of Consultants by the ADB and its borrowers* of March 2013 or as updated from time to time.
- iii. Assist the PCU to carry out annual review of the Procurement Plan;
- iv. Coordinate with the PCU and PMC to insure that procurement activities are scheduled to support procurement requirements, and that the relevant documents are completed;
- v. Assist the PCU in all phases of selecting international and national consultants, including: (a) request for expression of interest, (b) shortlisting and invitation to submit proposals, (c) evaluation of proposals and selection of consultants, and (d) negotiations and contract award;

- vi. Review all bid documents for procurement of works and goods prepared by the engineering team, in relation to possible International Competitive Bidding (ICB) and National Competitive Bidding (NCB) and other modes of procurement and to the conditions of contract and provide relevant advice as needed;
- vii. Provide assistance to the PCU and to the tender evaluation committee in the tendering process for the procurement of works and goods in accordance with ADB procurement guidelines, including: (a) preparation and publication of invitations to bid, (b) coordinate answers to bidders queries, (c) evaluation of tenders, and (d) preparation of tender evaluation reports;
- viii. Provide necessary inputs to PCU, the TL and the engineering team in preparing the TORs for the procurement of the Design-and-Build contractor to be engaged for the construction of WTP;
- ix. Coordinate the processes of non-objection by the ADB, during the procedures of evaluations of tenders and consultant's proposals.
- x. Assist the PCU in preparing the necessary documentation for contract signing and consultant and contractor mobilization;
- xi. Provide inputs to progress reports as required.

K12 – Social, gender and resettlement Specialist (1 National)

63. Preferred Qualifications and Experience: The national Social and Resettlement Specialist in the PMC shall have a master degree in sociology or anthropology or any other social science with a minimum of 5 years of work experience in the field of land acquisition and involuntary resettlement. The specialist should have up-to-date knowledge of laws and regulations of Uzbekistan pertaining to land acquisition and compensation etc. The specialist shall be familiar with Safeguard Policy Statement of ADB. Experience in implementation of LARP of ADB or any other donor agency funded projects in Uzbekistan or any other Central Asian Country would be desirable.

64. General Roles and Responsibilities: As a consultants under the PMC team He/she will undertake the following activities in the project:

During Detailed Design

- i. Collection of technical information and input from the engineering team responsible for detailed design on the final alignment and project sites;
- ii. Collection of necessary cadastral and property rights registration details and documents (cadastral plans etc) from the concerned departments;
- iii. carry out census and sample socio-economic survey of the affected households in order to update the data gathered during feasibility study;
- iv. Carry out necessary consultation with stakeholders;
- v. providing support for the valuation of assets;
- vi. Finalizing and Updating the draft LARP prepared during PPTA;
- vii. Submission of final LARP to the PCU and its social and resettlement specialist;
- viii. Together with PCU, disclosure of the final LARP.

During Implementation and Supervision

- i. Review gender action plan (GAP), social poverty reduction and sector strategy, C&P plan, and other social development documents prepared during the project preparatory technical assistance.
- ii. Orient PCU, TPS in assuring clear understanding of project schedule and respective roles and responsibilities in GAP implementation and other social development activities.
- iii. Establish an effective monitoring and reporting system based on sex-disaggregated data collected during public consultation and obtained from implementation team, TPS

- and its district branches, contractors and other parties, including maslakhatchi trainers who will provide community hygiene promotion and sanitation awareness trainings.
- iv. Preparation of data base of all the affected households and their eligibility and entitlement based on the final LARP
 - v. Assist in disbursement of compensation and assistance and ensure that affected persons are compensated as per the LARP before commencement of civil works in relevant section.
 - vi. Review, monitor and evaluate the effectiveness with which the LARP is implemented, and recommend necessary corrective actions to be taken. Advise on corrective measures where necessary to the PCU.
 - vii. Work with the PCU to establish a system to monitor social safeguards of the project and prepare indicators for monitoring important parameters of safeguards.
 - viii. Take proactive action to anticipate the potential resettlement requirements of the project to avoid delays in implementation.
 - ix. Prepare procedures to document and record the grievances and sensitize the PCU on the grievance redress mechanism which includes the notification, arranging the GRC meetings and recording the grievance in a data base.
 - x. Assist PCU in monitoring the implementation of land acquisition in the Project
 - xi. Design a LARP monitoring report template and develop monitoring indicators
 - xii. Consolidate/ prepare, with assistance from PCU and semi-annual social monitoring reports.

K13 - Finance specialist (1 National)

65. Preferred Qualifications and Experience: The national finance specialist will have a university degree in economics and finance, or business administration or equivalent and shall possess no less than 5 years of professional experience in urban water supply and sanitation of donor-funded projects. The specialist shall have a strong background in financial analysis and reporting of public utility, particularly in the water supply and sanitation sector.

66. General Roles and Responsibilities: He/she will work in close collaboration with the international Financial Expert and under the supervision of the PM and will carry out the following main tasks:

- i. Maintain close working relationships with the PCU Financial Management Specialist and the Accountant as well as with the MOF;
- ii. Assist the international Finance Specialist to develop the first project annual work plans and budget and carry out the subsequent annual work plans and budget;
- iii. Assist during the procurement of the FMS by providing assistance to the training program provided by the supplier and apply as needed for financial management procedures and reporting;
- iv. Update cash flow forecasts and other financial reports;
- v. Assist the PCU Financial Management Specialist and the Accountant to ensure correct approval processes and authorizations are followed for all financial transaction;
- vi. Review and consolidate contractors, suppliers and service providers invoices as process payment procedures;
- vii. Ensure that approved contractors invoices are timely paid;
- viii. Assist the PCU in preparing the Project financial progress reports;
- ix. Assist with any specific financial investigations and preparation of associated reports;
- x. Provide assistance and information input as required to the Financial management training module under the Capacity building program;
- xi. Assist the auditors if and when required.

K14 - Environment Specialist (1 National)

67. Preferred Qualifications and Experience: The national environment specialist will have a degree in natural or environmental sciences and no less than 5 years of experience in dealing with similar tasks under international donor financed development projects in Uzbekistan. Knowledge of ADB environmental policy and experience with the application of ADB environmental guidelines is regarded as an important asset.

68. General Roles and Responsibilities: He/she will work in close collaboration with the PCU Environment & Social Safeguards Specialist and under the leadership of the International Social and Resettlement Specialist and will, inter alia, carry out the following activities:

- i. Using the steps defined in the EMP, monitor the implementation of the EMP using the compliance monitoring checklist included in the project IEE (prepared for the construction period);
- ii. Elaborate specifications and relevant TOR for the implementation of the water, air and soil analysis and field inspections in accordance with the EMP;
- iii. Supervise the pre-commissioning baseline monitoring following the EMP provided in the IEE;
- iv. Monitor and report on handling of waste during the decommissioning of the obsolete buildings of the old Kadirya WTP as well as of all other water distribution centers being rehabilitated or reconstructed
- v. Provide assistance to contractors and TPS to elaborate a waste management plan including options and guidelines for disposal or recycling and landscaping;
- vi. Provide assistance to the TPS to prepare a final cleanup report and make sure that the TPS will duly file a completion report specifying who was contacted and when and that the site restoration was done satisfactorily;
- vii. Assist the international environmental specialist to elaborate and propose reporting formats; make sure that results of monitoring are reported in quarterly, bi-annual, annual reports and in the Project completion reports;
- viii. Assist the PCU in dealing with contractors for the implementation of the EMP and supervise the compliance of the contractors in implementing the environmental mitigation measures;
- ix. Make sure that the Contractors will: i) carry out the EMP as specified in the IEE and further required in the Contractor's Bill of Quantities (BOQ), and i) conduct environmental monitoring including measurements and observations on dust and air pollution during construction in accordance with the Quarterly Compliance Monitoring Checklist for Contractor;
- x. Assist the PCU in dealing with the road Police Department in preparing traffic emergency plans and temporary deviations of traffic during construction;
- xi. In collaboration with the PCU Environment & Social Safeguards Specialist supervise the implementation of the sludge management plan for the new WTP and report to PCU, PM and TPS accordingly;
- xii. Supervise the EMP completion report to be prepared by Contractors and assist PCU and TPS in timely obtaining such reports;
- xiii. Assist PCU and TPS to: i) prepare and maintain a grievance redress mechanism, ii) establish a grievance redress committee (GRC), and iii) carry out monitoring on effectiveness; make sure that: i) GRC will have strong female representation, and ii) the grievance process is implemented effectively, according to the plan and schedule in the IEE;
- xiv. Assist the international environmental specialist to provide support and inputs to the Environmental Management training module being implemented under the Capacity Building program;
- xv. Provide inputs to the Project outputs/reports as required.

K15 - Construction Supervision Specialist (5 Nationals)

69. Preferred Qualifications and Experience: The Construction Supervision Specialist will have a technical in civil works or similar level of degree. He/she shall have a minimum 10 years' proven experience in construction management, supervision and quality control of Programs related to water supply. No less than 5 years working experience with donor funded infrastructure development projects.

70. General Roles and Responsibilities: The Construction Supervision Specialist will be mainly in charge of ensuring that all works performed and materials used as indicated in the contractor's daily and weekly reports are conform with approved construction drawings, standards and norms They will report to the PCU and undertake the following tasks:

- i. Supervise all civil works related water supply network construction, pumping stations and WTP, and verify that all works and related equipment are according to the design documents and the accepted standards; in particular make sure that depth of lying of pipes, leveling of bottom ditches and sand beds are set in place in conformity with construction design and required standards and norms;
- ii. Approve and confirm delivery of material, mechanical and electromechanical equipment, and workmanship in accordance with the requirements of the contracts;
- iii. Monitor and check the day-to-day quality and quantity of works carried out under the contract and report to the PM and his deputy;
- iv. Provide assistance to the consulting engineer during the inspections for quality control of works and materials and report to the PM and his deputy;
- v. In collaboration with the PCU's water supply and sanitation engineer and the consulting engineers review the detailed construction plans submitted by the contractors;
- vi. Supervise water network pressure tests and verify the compliance of such tests with required performance indicators and standards before pipes are covered; make sure that the water network cleaning and disinfection operations are conducted according to planned schedules;
- vii. Collect and approve daily and monthly progress reports prepared by Contractors and Suppliers and provide needed inputs for preparation and submission of monthly progress reports to the PCU;
- viii. Provide assistance during training workshops as needed and participate to the conduction of training including control, leak tests, new pipework disinfection, pipe repair, bulk water meter reading, and pressure monitoring;
- ix. Provide assistance to the PM as well as to the water supply experts for the coordination and supervision of training in system O&M to be prepared and delivered by contractors and suppliers;
- x. Review and make sure that the as-built plans reflect effectively the changes in the design, dimensions/ specification and actual work done at the site;
- xi. Provide inputs as needed to monthly, quarterly and annual reports as well as for the preparation of project completion reports.

FACILITIES TO BE PROVIDED BY THE CLIENT

71. The Client will provide the PMC with access to all relevant reports, studies and other documents, required to carry out project implementation, including but not limited to the Loan Agreement, the Project Agreements, the RRP, the Operational Manual, the Environmental Management Plan and related studies, the Pre-feasibility and Feasibility Studies for the project.

FACILITIES TO BE PROVIDED BY THE PMC

72. The PMC shall arrange for all of its own office spaces in Tashkent province, office hardware, such as vehicles, office furniture, communications equipment, photocopying equipment, fax machines, and computers and printers, including their software needs. All documents, equipment, vehicles, facilities related to the Works are, and will remain the Client's property after completion of works.

REPORTS REQUIREMENTS

73. The following reports are to be supplied by the Consultant at the following periods:

| No. | Report name | Report content | Frequency | Date of submission |
|------------|--------------------|---|------------------|---|
| 1 | Inception Report | Brief report after mobilization including action plan | Once | Within 2 weeks after mobilization |
| 2 | Interim Report | Detailed report on the progress of project implementation, status of achievement of project goals and outputs in accordance with ADB's format | Every quarter | Within 2 weeks after the reporting period |
| 3 | Draft Final Report | Draft detailed report on the project completion, outcome of the project in accordance with ADB's format | Once | 1 months prior to project completion |
| 4 | Final Report | Revised final detailed report on the project completion, outcome of the project in accordance with ADB's format | Once | Within 1 months after project completion |

2. DETAILED DESIGN CONSULTANTS

SCOPE OF CONSULTING SERVICES

74. The following are the main activities expected to be covered by this TOR:

- i. Consultant shall be responsible for performing all detailed design and engineering necessary for completion of the Work;
- ii. The Consultant shall obtain a positive conclusion (Expert Opinion) of State Expert Organization and permissions for the detail design developed, and from all other governmental and municipal bodies and the consultant shall provide coordination between various structures and departments. In case of necessity, *Suvokava* shall help the consultant in obtaining approvals from different bodies and organizations;
- iii. Consultant shall advise of any design alternatives that may offer better techno-economic solutions;
- iv. Consultant shall base his design on proven technology and on established design and construction techniques. All relevant backup shall be provided by the Consultant;
- v. Consultant shall ensure that all design aspects of the project shall be in compliance with Uzbek legislation and international codes and standards as well as Uzbek specifications and guidelines;

- vi. Consultant shall ensure that only the latest, up-to-date versions of preliminary design documents and drawings are used in the execution of the detailed design documents;
- vii. Consultant shall be responsible for correcting any drawings or documents that are found to be incorrect due to insufficient site checks, errors, or omissions on the part of Consultant;
- viii. Consultant shall liaise with *Suvokava* and other parties to finalize all tie-in points with existing facilities and incorporate them in drawings and documents related to this Project;
- ix. Consultant shall carry out all necessary calculations and conduct all appropriate design procedures and analyses as required to optimize the sizing and selection of equipment if any and the specification of materials;
- x. Consultant shall produce all necessary engineering drawings, data sheets, specifications, bill of quantities, cost estimate and method statements for the completion of the Work;
- xi. Consultant shall produce and update equipment lists;
- xii. Consultant shall produce all necessary engineering drawings, data sheets and specifications;
- xiii. Consultant shall submit a list of proposed design software concerning the water networks;
- xiv. Detailed Design shall be prepared in 4 copies on each facility and digital version on a CD to be handed to *Suvokava*. The explanatory note shall be in MS Word format, estimate tables shall be made in MS Excel format, and drawings in AutoCAD format. *Suvokava* shall review and confirm the work performed by Consultant;
- xv. Consultant shall be guided by local rules of construction and norms of design (standards of design) approved by State Committee of Architecture and Construction of the Republic of Uzbekistan (State agency, which governs norms and rules of construction works in Uzbekistan) and Government Decisions in the field of construction and other normative documents. The standards show contents and execution of drawings. Detailed documents shall be prepared by Consultant. The contents of drawings shall include the following:
 - a. Common data on design drawings;
 - b. Drawings (plans, profiles and elements) of water supply systems;
 - c. Bill of quantities;
 - d. Specifications of equipment and structures;
 - e. Schemes of water supply networks and other existing engineering networks.
- xvi. Design drawings of water supply networks shall be made in a scale such as horizontal 1:500, vertical 1:100. All facilities installed in designed water supply network (water manholes and chambers) will be designed in detail and showed in the drawings.
- xvii. The Consultant will provide detailed scopes of construction and erection works and make calculation "Starting cost of construction in current prices".
- xviii. The consultant shall submit all the required technical documents for the detail design works which shall include but not limited to the following:
 - a. Calculation Sheets
 - b. Detailed design drawings
 - c. Technical Specification
 - d. Detailed Bill of quantities
 - e. Material List
 - f. Detailed Cost estimate
- xix. The Consultant will be responsible for his designs/documents until construction period completion.

SCOPE OF CONSTRUCTION WORKS

75. The scope of construction works is given in detail in the Annex 1 to this ToR:

COUNTERPART ASSISTANCE

76. Consultant shall get access to all legal and technical documentation related to the Project and the required work.

77. Due to importance of the work, the PCU supports the idea of formation of joint enterprises for selection procedure of the consultant

78. It should be assumed that no direct support is available from the PCU for the provision of office space or other administrative support activities for the implementation of these TOR.

PROJECT DURATION

79. All the scope of works must be performed within 20 months after signing the contract. However, the Consultant shall be responsible for any change regarding the design supervision till the completion and commissioning of the construction sites.

80. Project detailed design documentation shall be considered accepted by the PCU after elimination and correction of all remarks of related establishments in established order.

REPORTS AND SCHEDULE OF DELIVERABLE

81. The Consultant shall prepare and submit the following reports and documents in both hard copy and digital version to the PCU, TPS and ADB.

| No | Output/Report | Time due |
|---|---|--|
| 1 | Inception report | 1 month after the start of the assignment |
| Draft Detailed Designs: Technical Report, Detailed Designs, Specifications, Drawings, and Cost Estimation of: | | Current documents should be acceptable for the Client |
| 2 | Package-1 | 1.5 months after the start of the assignment |
| 3 | Package-2 | 2 months after the start of the assignment |
| 4 | Package-3 | 3 months after the start of the assignment |
| 5 | Final Detailed Designs: Technical Report, Detailed Designs, Specifications, Drawings, and Cost Estimation | 2 weeks after reception of comments on draft detailed design |
| 6 | Final Report | 1 month after submission of Final Detailed Designs |
| 7 | Design Supervision Report | 1 month after completion of the Project |

DRAWING REQUIREMENTS

82. Submission of design related reports is to be in written format in MS Office 2010 compatible format, with drawings in a format compatible with AutoCAD 2010, and submitted on a CD-ROM or DVD. For each design report with associated drawings hard copies are to be presented as follows:

- i. English language – two sets with one CDROM/DVD
- ii. Russian language – three sets with one CDROM/DVD
- iii. Drawings shall be presented as paper copies as follows:
- iv. Preliminary Designs: A3
- v. Detailed Design: A2
- vi. Construction Drawings: A3
- vii. Reports, BOQ and technical specifications, etc A4
- viii. Drawing scales shall be according to the following guidelines:
 - Site Plans: 1:1000 to 1:2500
 - Detail drawings: 1:100 to 1:500
 - Cross-sections and Elementals (structures): 1:50 to 1:100
 - Pipeline sections: The L/S shall be plotted at 1:1000 horizontal and 1:100 vertical scale; the plans shall be plotted at 1:1000 scale; and the C/S shall be plotted at 1:200 horizontal and 1:100 vertical scale.

REQUIREMENTS TO CONSULTANT'S COMPETENCE

83. Consultants are required to have license of State Architecture Committee of the Republic of Uzbekistan for design activities (by the state body regulating norms and rules of construction works in Uzbekistan), otherwise the consultant shall be given sufficient time for obtaining the license. Subcontracting or entering into joint venture with the licensed design firms another option to meet the licensing requirement.

84. Consultant must have professional experience in special spheres such as civil works, specifically knowledge of appropriate local construction rules and design norms (design standards), approved by State Architecture Committee of the Republic of Uzbekistan (state authority which regulates norms and rules of construction works in Uzbekistan) and other Government Decrees in the area of civil works. The design documents prepared by Consultant are required to comply with the local design standards stated above.

85. At least 5 years of experience for the Consulting company in designing of water supply networks, pumping stations and other water facilities.

STAFFING

86. The personnel requirement for the detailed design works as outlined above is estimated to be as follows:

| Professional Staff | Type | Quantity | Total Person-Months |
|---------------------------------------|----------|-----------|---------------------|
| Key Personnel | | | |
| National | | | |
| K1-Team Leader/ Water Supply Engineer | National | 1 | 39 |
| K2- Water Treatment Engineer | National | 1 | 33 |
| K3- Water Supply Engineer | National | 4 | 132 |
| K4-Civil / Structural Engineer | National | 1 | 33 |
| K6-Electro-Mechanical Engineer | National | 1 | 16 |
| K7-Mechanical Engineer | National | 1 | 16 |
| K8-Quantity Surveyor | National | 1 | 21 |
| K9-AutoCAD Specialist | National | 2 | 59 |
| Total | | 12 | 349 |

PREFERRED QUALIFICATIONS, ROLES AND RESPONSIBILITIES

K1 - Team Leader/ Water Supply Engineer (1 National)

87. Preferred Qualifications and Experience: He/She shall have: (i) MSc degree in civil/hydro technical-engineering or similar; (ii) at least 15 years of general experience with including 10 years of experience in design, planning and construction of large water supply projects; (iii) The expert is expected to know well construction norms and standards of water supply in Uzbekistan; (iv) 5 years of experience with WSS projects financed by ADB or other IFI; (v) advanced computer literacy and local language proficiency is preferred.

88. General Roles and Responsibilities: His/her main activities in the project will be:

- i. Provide guidance to the engineering team in detailed design;
- ii. Provide guidance to the engineering team in all phases of the preparation of design, technical specifications for civil works and for special subcontractor or sub-consultants works;
- iii. Review the assumptions, water production projections and the implementation scheme adopted in the FS and propose improvements as needed;
- iv. Review hydraulic calculations and the optimization of the water supply pipe diameters taking into account the production of water at the horizon 2043; optimize capacity of pumping equipment, size of reservoirs and pipe diameters;
- v. Work in close collaboration with the PMC manager in order to harmonize design dimensions and standards;
- vi. Provide input to and review the works of the AutoCad specialists; ensure that drawings are in accordance with required national standards and norms; and suggest amendments as required; assist the PCU during the submission of the project documents to the State Expertise;
- vii. Provide adequate feedback to the quantity survey specialist for the specifications of characteristics of material and equipment and relative cost estimates;
- viii. Provide guidance to engineers in reviewing, as applicable, the procurement packages proposed in the FS;
- ix. Provide assistance to PCU during the process of tendering for the procurement of civil works contractors and advise as needed the tender evaluation committee during the evaluation of tenders;
- x. Review and approve the Contractor's construction and as-built drawings;
- xi. Review the preliminary engineering design and guide drawings to be annexed to the tender documents for the procurement of the Design-and-build Contractors which will be engaged for the: i) construction of the new WTP, if requested;
- xii. Supervise the commissioning tests of the constructed/reconstructed water supply system upon completion of each contract package;
- xiii. Coordinate with the national government and district offices regarding collection and validation of technical information;
- xiv. Provide inputs to the Project outputs/reports as required.

K2 – Water Treatment Engineer

89. Preferred Qualifications and Experience: He/She shall have: (i) at least bachelor's degree in civil/hydro technical-engineering or similar; (ii) at least 15 years of general experience with including 10 years of experience in design, planning and construction of large water supply projects; (iii) be conversant with construction norms and standards of water supply in Uzbekistan; (iv) referred experience in design or/and construction supervision of water treatment systems; (v) 3 years

of experience in WSS projects financed by ADB or other IFI; (v) working level computer literacy is required.

90. General Roles and Responsibilities: As Water Treatment Engineer he/she will work closely with the TL and undertake the following tasks:

- i. Assist the PMC Water Supply Engineer Water Treatment Specialist in the preparation of technical specifications and bidding documents for the procurement of a design and build contractor which will be in charge of the construction of the new Kadiya WTP; review the documents in regard to national standard requirements for civil works;
- ii. Provide advice to the PMC Water Supply Engineer Water Treatment Specialist for the preparation of the guide drawings to be included in the tender documents for the new Kadiya WTP, particularly in regard to national standards requirements;
- iii. Liaise with the PCU and the PMC engineering team and provide support throughout the process of procurement and selection of the DB contractor;
- iv. Participate to all phases of the design and construction of the new Kadiya WTP and provide advices to PCU and PMC engineering teams regarding national norms and construction methodologies;
- v. In collaboration with the PMC Water Supply Engineer Water Treatment Specialist review the construction drawings submitted by the DB contractor in order to ensure harmonization with national norms and procedures, and suggest amendments as required;
- vi. Provide if required, assistance to the PCU during the submission of the new Kadiya WTP project documents to the State Expertise;
- vii. In collaboration with the PMC Water Supply Engineer Water Treatment Specialist review the construction drawings submitted by the DB contractor review Contractor's as-built drawings;
- viii. Carry out technical research work which is necessary to complete the design of the water and water supply system as required by the international water supply design engineer;
- ix. Participate to the WTP commissioning tests and procedures.

K4 - Water Supply Engineer (4 Nationals)

91. Preferred Qualifications and Experience: He/She shall have: (i) at least bachelor's degree in civil/hydro technical-engineering or similar; (ii) at least 10 years of general experience with including 5 years of experience in design, planning and construction of large water supply projects; (iii) good knowledge of construction norms and standards of water supply systems in Uzbekistan; (iv) 3 years of experience with WSS projects financed by ADB or other IFI; (v) working level computer literacy is required. Experience with water supply pipework simulation software is regarded as a certain supplementary asset.

92. General Roles and Responsibilities: During his/her assignment he/she will undertake the following tasks:

- i. Elaborate construction drawings consisting of: (i) layouts and longitudinal sections of water supply networks; (ii) typical drawings for (a) inspection and connection manholes for water supply systems, (b) bulk meter manhole or other type of installation; (c) customer water meter installation;
- ii. Prepare technical specifications and other documents required for the preparation of tender documents; estimate quantities and prepare draft bills of quantities to be further analyzed and used by the quantity survey expert;

- iii. Provide inputs for the preparation of technical specifications, drawings, bill of quantities and cost estimates to be included in the tender documents for the procurement of the DB contractor for the construction of the WTP, if requested;
- iv. Supervise and review the works of the AutoCad specialists; make sure that drawings are in accordance with required national standards and norms; and propose amendments as required;
- v. Review and approve the as-build drawings submitted by the contractors;
- vi. Assist the PCU during the submission of the project documents to the State Expertise;
- vii. Provide required inputs and assist in the preparation of drawings and other documents needed for the delivery of workshops to the future operators of TPS as applicable;
- viii. Provide inputs to the Project outputs/reports as required.

K5 - Civil / Structural Engineer (1 National)

93. Preferred Qualifications and Experience: He/She shall have: (i) at least bachelor's degree in civil/structural engineering or similar; (ii) at least 10 years of general experience including 5 years of demonstrated experience in design and implementation of industrial and infrastructure service buildings; (iii) 3 years of experience with WSS projects financed by ADB or other IFI; (iv) working level computer literacy is required.

94. General Roles and Responsibilities: He/she will work in close contact with the water supply engineers and other sector engineering experts and will carry out the following main activities:

- i. Carry out structural calculations of all structures related to the rehabilitation and construction of the water supply system, namely: pump houses, reservoirs, guardhouses, warehouse shelters;
- ii. Develop methodologies and provide competent advice to the water supply engineers for the optimization of entrenchment profiles for laying the water supply pipes;
- iii. Carry out preliminary structural calculations and guide drawings and of the pump houses, and other sheltering infrastructure as well of all buildings included in the various water distribution centers;
- iv. Review construction drawings and as-build drawings prepared by Contractors, and provide and competent advice to make sure that all structural works are in accordance with national norms and construction regulations;
- v. Provide support and inputs as required during the optimization of particular structures and the preparation of technical specifications for the procurement of civil works for the construction of water supply pipelines and other related civil infrastructure;
- vi. Provide technical support and advice as needed during the evaluation of tender documents;
- vii. Assist the PCU during commissioning of pump stations and the WTP and further during the damage liability period;
- viii. Provide inputs to the Project outputs/reports as required.

K6 - Electromechanical Engineer (1 National)

95. Preferred Qualifications and Experience: He/She shall have: (i) at least bachelor's degree in electrical/electromechanical engineering or similar; (ii) at least 10 years of general experience with including 5 years of practical experience in the design and implementation of industrial electromechanical installations and electronic controls; (iii) 3 years of experience with WSS projects financed by ADB or other IFI; (iv) working level computer literacy is required.

96. General Roles and Responsibilities: During his/her assignment under the Project He/she will:

- i. Assess the requirement of electrical supply for the of the water supply system as well as the water pumping equipment, office buildings, lightening and all other equipment requiring electrical power;
- ii. Carry out the hydraulic calculations and determine the hydraulic characteristics of the water pumps to be procured and installed in the pumping stations;
- iii. Provide inputs to the Civil Engineer to draft layouts of the pump station buildings;
- iv. Provide inputs to technical specifications and for the supply and installation of electromechanical equipment as well as for electronic controls and make that the equipment to be delivered and installed is in accordance with national norms;
- v. Provide preliminary inputs on energy requirement to the technical specifications to be included in the tender documents including the performance schedules for pumps, switches, controls and other electrically driven equipment;
- vi. Provide as needed, technical assistance and advice to the tender evaluation committee during the evaluation of tender documents;
- vii. Review operation and maintenance manuals delivered by contractors and suppliers of suppliers of pumps, controls and other electromechanical equipment, and provide comments as needed to maintenance plan;
- viii. Provide inputs to the Project outputs/reports as required.

K7 - Mechanical Engineer (1 National)

97. Preferred Qualifications and Experience: He/She shall have: (i) at least bachelor's degree in mechanical engineering or similar; (ii) at least 10 years of general experience with including 5 years of practical experience in the design and implementation of pumped or gravity hydraulic systems; (iii) 3 years of experience with WSS projects financed by ADB or other IFI; (iv) working level computer literacy is required.

98. General Roles and Responsibilities: During his/her assignment under the Project He/she will:

- i. Review the hydraulic calculations of the water supply system as proposed in the FS and propose improvements as needed;
- ii. Carry out or review as needed hydraulic calculations for the water supply network;
- iii. Provide inputs as needed for the preparation of the tender documents with particular concern to requirements and performance schedules for pipe characteristics and material and characteristics; in particular review the technical specifications and guide drawings;
- iv. Review the tender documents and technical specifications for the procurement of pipes and appurtenances and make sure that characteristics of the materials are in accordance with the national standards;
- v. Review the guide and construction drawings prepared by the AutoCAD specialist and propose amendments as needed;
- vi. Provide inputs to the Project outputs/reports as required.

K8 - Quantity Surveyor (1 National)

99. Preferred Qualifications and Experience: He/She shall have: (i) at least bachelor's degree in civil engineering or similar; (ii) at least 10 years of general experience with including 5 years of documented experience in material testing and cost estimates; (iii) knowledge and references in procurement practices are a certain supplementary asset; (iv) 3 years of experience with WSS projects financed by ADB or other IFI; (v) working level computer literacy is required.

100. General Roles and Responsibilities: He/she will work in close collaboration with the TL and all components of the engineering team and will undertake the following activities in the Project:

- i. Review technical specifications to be included in the tender documents and provide relevant advice to specialist engineers;
- ii. Conduct research to update the cost of materials, equipment, civil works, pipes and fittings, pumps, electro-mechanic components and related civil works;
- iii. Advise as needed the design engineers regarding clarification of technical specifications of water supply system components according to national standards;
- iv. Complete the detailed costing and specifications of the water supply networks based and ensure the consistency with the technical drawings elaborated by the design teams;
- v. Review cost of local materials; quality of materials, and relevant specifications; keep inventories of local suppliers;
- vi. Provide the water supply, civil, electromechanical and mechanical design engineers with guidelines and suitable templates for the preparation of detailed bills of quantities;
- vii. Provide overall assistance, quality control as well as necessary support attachment/documents to ensure completeness of bid documents and coherence with ADB requirements;
- viii. Provide inputs to the Project outputs/reports as required.

K9 -AutoCAD Specialist (2 Nationals)

101. Preferred Qualifications and Experience: He/She shall have: (i) at least a recognized high school diploma or license as civil engineering constructor or equivalent; (ii) at least 10 years of general experience with including 5 years of demonstrated experience in construction and design of water supply systems and industrial buildings; (iii) an academic profile will be a supplementary asset; (iv) 1 year of experience with WSS projects financed by ADB or other IFI; (v) advanced level computer literacy is required.

102. General Roles and Responsibilities: He/she will work in close collaboration with the design engineers and will undertake the following main tasks:

- i. Carry out detailed layouts and construction drawings of the water supply networks including details of inspection and connection manholes, and customer connections;
- ii. Ensure that all drawing details related to water supply networks, pumps, and other water supply components are consistent with national standards and norms;
- iii. Provide to the design engineers and the quantity survey engineers details on quantities of works, material and goods to be included in the bills of quantities for the tender documents;
- iv. Carry out layouts of the water supply pumping stations to be procured and installed according to a Design-and-Build contract, if requested;
- v. Carry out layouts of the main components of the WTP to be procured and installed according to a Design-and-Build contract, if requested;
- vi. Provide support for the preparation of drawings and layouts required for carrying out workshops with stakeholders and water supply operators;
- vii. Ensure systematic keeping of files of technical drawing that are easily retrievable and accessible to other components of the engineering consulting team.

VII. SAFEGUARDS

103. The Government through UCSA will ensure that all safeguard requirements prescribed for the Project that have been prepared are implemented. The Project, in accordance to ADB SPS 2009, is categorized as “B” category for environment and Involuntary Resettlement, and as “C” category for Indigenous People impacts. Therefore, the following safeguard documents were prepared during the project preparation:

- (i) Initial Environmental Examination (IEE) including an Environmental Management Plan (EMP) was prepared. This report identified potential impacts that would be generated from the Project, and proposed EMP consisting of mitigation measures, monitoring plan, and arrangements for EMP implementation.
- (i) A Land Acquisition and Resettlement Plan (LARP) for mitigating impacts for the construction of a proposed new water treatment plant and new water distribution centers, as well as for addressing temporary impacts related to the water supply pipelines.

104. UCSA and TPS oblige to implement EMP and LARP proposed in these two safeguard documents that were prepared with adequate consultations with affected people and people living in the surrounding project areas, and other relevant stakeholders.

69. **Prohibited investment activities.** Pursuant to ADB’s Safeguard Policy Statement (2009), ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the Safeguard Policy Statement (2009).¹⁵

A. Environment

70. Impacts from the Project are expected to be limited in magnitude of a short-time nature, mostly related to construction and rehabilitation of the trunk main, distribution centers and distribution networks. These including dust, noise, vibration, hazardous solid wastes (asbestos-containing materials, scrap metals and oils from old equipment), labor and public safety, temporary blockage of household access, traffic disturbance, production and transportation of construction materials. Environmental impacts during operation phase include the increase of water use from the water sources, disposal of sludge from the WTP and borehole sites, accidental leakage from chlorination, noise from WTP and pumping stations, and increase in production of sewage compared to the capabilities of community facilities.

105. The PCU at UCSA and TPS will be responsible for implementation of EMP to comply with ADB’s safeguards requirements and environmental national regulations. For this, PCU will be required to designate a qualified full-time safeguard position who will be assisted by the environmental specialists of the project management consultant (PMC) in overseeing the implementation of EMP. The cost for implementing EMP will be financed by the project, specifically: The cost for implementing EMP will be financed by the project, specifically: the costs of mitigation measures and environmental monitoring will be included in the construction contracts, and the cost for environmental supervision will be included in the consulting service of the PMC. PCU is responsible for overall environmental compliance with SPS 2009. A grievance redress mechanism to handle both environmental and social safeguard issues will be established after the project effectivity. TPS will also designate its environment staff responsible for EMP implementation, in close coordination with UCSA.

¹⁵ Available at: <http://www.adb.org/sites/default/files/pub/2009/Safeguard-Policy-Statement-June2009.pdf>

106. It is mandatory that ZVOS (Uzbekistan EIA) be prepared and relevant approvals be obtained from Glavgoosexpertiza of Goskompriroda prior to the commencement of the project activities.

107. EMP will form part of the bidding documents. To ensure that mitigation actions are implemented in accordance with the requirements of the EMP, monitoring shall be undertaken as follows:

- Instrumental Monitoring for environmental quality such as air, noise, vibration, water – This shall be performed monthly by a certified laboratory to be hired under the contractors' contract with guidance and approval from the PMC. Schedules, parameters, locations are indicated by the Project EMP and shall be endorsed by the PMC.
- Observational Monitoring – Throughout the Projects Construction phase PMC shall continually monitor the Contractors actions. This will be achieved through weekly inspections of the Contractors environmental performance by PMC's national environmental specialist throughout the construction period. PMC shall have the right to suspend works or payments if the Contractor is in violation of any of his obligations under the EMP and SSEMPs.

108. Contractors will be responsible for implementing mitigation measures. Within 30 days after contract award and prior to commencing any physical works, Site-specific Environmental Management plans (SSEMPs) will be developed by the Contractors under the guidance of the PMC, and be endorsed by PMC before submission to PCU for approval. The SSEMP is the document that the Contractors shall prepare outlining how he intends to implement the EMP and ensure that all of the mitigation and monitoring is completed according to the implementation arrangements specified in this EMP. SSEMPs will be needed for major environmental issues and most critical sites relating to sensitive receptors. During construction, the Contractors must retain the expertise of a full-time Environmental Officer (EO) to implement and continually update the SSEMPs, and to report on the implementation of mitigation measures throughout the contract period.

109. The PMC is tasked with specific responsibility to assist PCU in ensuring safeguard compliance of civil works – with particular emphasis on the monitoring of implementation of EMP through the Contractors SSEMP and related aspects of the project. PMC shall retain the use of Environmental Specialist, both national (NES) and international (IES), to ensure that the Contractor is compliant with his environmental obligations. It is required that the IES provides a short training program to the PCU safeguard person and Contractors EO prior to the start of construction to develop their knowledge and understanding of the environmental, social, health and safety aspects of the Project. The IES will also be responsible for developing a comprehensive proposal for establishment and operations of the Environmental awareness centers. Training EHS for contractors need to be conducted throughout project implementation, at every visit of the IES. TORs for IES and NES can be found in the PMC contract.

110. In addition to the Contractor's full-time EO and the PMC's part-time NES backed up with an IES, it is required that PCU designate a full-time safeguard position to manage and coordinate the contractors and PMC in reporting to EA and ADB on safeguard performance of the project. PCU is responsible for overall EMP implementation and will be assisted by the PMC. The PCU's responsibilities include the following, but not limited to:

- Ensure the bidding documents of PMC and Contractors include all tasks as described in the approved EMP
- Supervise the PMC and Contractors in EMP implementation for overall compliance with SPS 2009 requirements and project environment-related legal covenants

- Ensure all necessary government permits and license, including ecological expertise opinion, for all civil works will be obtained.
- Approve SSEMPs which will be prepared by the Contractors and endorsed by the PMC
- With assistance of the PMC, prepare, submit to the EA and ADB, and disclose semi-annual environmental monitoring reports on ADB website and in UZB
- Report in a timely manner to ADB of any non-compliance or breaches with ADB safeguard requirements and take corrective actions promptly.
- Update the IEE in case of technical design changes or unanticipated impacts
- Establish a Grievance Redress Mechanism (GRM) after the project effectivity and act as the GRM secretary to make sure that the GRM is operational to effectively handle environmental and social concerns of project affected persons
- Build up and sustain institutional capacity in environmental management

111. TPS will hire full-time environmental Specialist who will be in charge for implementation of EMP and ensure compliance with national environmental requirements. Along with implementation mitigation measures indicated in EMP, he/she will responsible for in-time development and submission environmental reports to Statistical Committee of Uzbekistan and State Nature Protection Committee; obtaining and timely updating permissions on discharge waste water, exhausted gases in air and disposal of solid wastes; special permission on water use.

112. State Nature Protection Committee through it is branches in Zangiota and Kibray districts will be also involved in the process of project implementation and further operation. Provincial Nature Protection Committee will review local Environmental Assessment (ZVOS) and approve it if the ZVOS complies with national requirements. Moreover, requirements indicated in Environmental Appraisal will be mandatory for implementation and it will be monitored by inspectors from district branches of Nature Protection Committee. Representatives of the Committee will also participate into the hand-over process as member of State Acceptance Commission.

Cost estimates for EMP implementation

| Item | Quantity | Unit cost USD | Total Cost USD | Remarks |
|---|------------------|------------------|-------------------|---|
| Instrumental Monitoring | | | | |
| Water quality | 4 | 200 | 800 | To be conducted by Contractor on the monthly base as indicated in EMP |
| Air quality SO ₂ , NO ₂ , CO | 120 | 200 | 24,000 | Analysis will be conducted by external laboratory. Cost is included in Contractors budget |
| Noise measurement devices | 4 ¹⁶ | 400 | 1600 | Devices could be purchased for long-term use |
| Environmental Mitigation Measures/Permissions | | | | |
| Cutting trees | 40 ¹⁷ | 230 | 9,200 | Cost will be included into the Contractors budget |

¹⁶ Four devices for four Contractors in both districts

¹⁷ cost for trees was accepted as average with diameter 16-20 cm, per RCM of RUz#290 dated 20 October 2014 and converted into the USD based on rate of Central Bank of Uzbekistan

| Item | Quantity | Unit cost USD | Total Cost USD | Remarks |
|--|----------|-------------------|----------------|---|
| Asbestos Management | 8 | 250 ¹⁸ | 2,000 | This mitigation measure will be implemented in case of identification asbestos materials during rehabilitation works at WDCs. Expenses will be included in Contractor contracts |
| Dust and noise control barriers | 1 | 10000 | 10,000 | To be installed by Contractor at Keles WDC |
| Environmental awareness program | | | | |
| Training | 5 | 3000 | 15,000 | As indicated in table 20. Budget is included in PMC contract |
| Information Centre | 1 | 80000 | 80,000 | PMC will be in charge for procurement of the information Center |
| Subtotal | | | 142,600 | |
| Miscellaneous | | | 14,260 | 10% of subtotal |
| Contingency | | | 18,823 | 12 % of subtotal + Miscellaneous |
| Total | | | 175,683 | |
| Staffing | | | | |
| PMC Environmental Specialist | | | | Cost is included in PMC budget |
| International, p/m | 6 | 15000 | 105,000 | |
| National | 18 | 1200 | 21,600 | |
| PCU National Environmental Specialist | | | | Cost is included in PCU budget |
| | 60 | 1200 | 72,000 | |
| TPS environmental staff | | | | TPS budget |
| Total for staffing | | | 198,600 | |

Expenses related to staffing of PCU, PMC and Contractors with Environmental Specialists are included into their budget, therefore they are excluded from total budget for EMP.

B. Land Acquisition and Resettlement

113. UCSA will ensure that land acquisition will be carried out in accordance with ADB's SPS (2009), and applicable laws and regulations in Uzbekistan that have been referred to in the LARP. UCSA will ensure that LARP will be implemented, and monitored to ensure that no affected people will suffer by unattended impacts associated with land acquisition. The draft LARP indicated that land acquisition will affect 9 households (48 persons) for the permanent land acquisition, and 45 households (257 persons) for

¹⁸ Calculation based on Asbestos materials management plan developed for Kyrgyz Republic: Issyk-Kul Sustainable Development Project (2015)

the temporary impacts due to the pipe laying. UCSA will be responsible to pay compensation to affected farmers due to land acquisition and temporary impacts according to the process outlined in the LARP. The civil works could only be commenced after compensation is fully paid. The current LARP indicated that total costs for LARP implementation will be around \$1.2 million, including 10% for contingency. For implementing this LARP, UCSA will ensure that:

- (i) the PMU will recruit a social safeguards (resettlement) specialist as part of the PMU team to implement LARP and address complaint related with compensation, if any.
- (ii) the LARP will be updated after the detail design is available. The social safeguards (resettlement) specialist will update the LARP report and carry out adequate consultation with affected people. The report should at least indicate any change on land acquisition from the detail design, change on affected people, and change on budget for LARP implementation. However, the standards set in the entitlement matrix shall not be lowered that provided clear guidance on entitlements for compensation.
- (iii) the updated LARP has to be submitted to ADB for concurrence prior to implementation, and has to be submitted as early as possible after detailed design is available.
- (iv) the updated LARP will be disclosed through ADB's website and UCSA will be responsible to disclose relevant information from the updated LARP to the affected people.
- (v) if the detailed design will not cause any change on land acquisition, the PMU has to provide ADB with written statement that updated LARP is not required, and the existing LARP report will be implemented.
- (vi) the awarding of civil works contract will be done only after affected farmers receive full payment of compensation, and report on full payment of compensation needs to be submitted to ADB. The advance payment to the contractor can only be released by ADB after the report on full payment is received by ADB.
- (vii) report on monitoring the implementation of LARP including any grievance will be submitted to ADB on semi-annual basis until the payment of compensation to affected parties is fully paid.
- (viii) the social safeguards (resettlement) specialist of PMU will also observe , any unanticipated impacts due to land acquisition, and take necessary measures in accordance to the provision describe in the LARP.

C. Indigenous Peoples

114. The project has been classified as category C for indigenous peoples safeguard. There are no indigenous people's communities in the project area or in the country in general, as defined in the SPS for operational purposes. Accordingly, no indigenous peoples planning documents will be required.

D. Risks and Mitigating Measures

115. Major risks and mitigating measures are summarized in Table 3 and described in detail in the risk assessment and risk management plan.¹⁹

Table 3: Summary of Risks and Mitigating Measures

| Risks | Mitigating Measures |
|--|--|
| Financial management capacity of TPS is weak | UCSA to provide overall supervision and guidance to TPS in financial management. Specific measures include (i) TPS to recruit accounting staff; (ii) a project management consultant team including a qualified international financial management specialist and a qualified national financial management specialist will be recruited to provide necessary supports and to strengthen |

¹⁹ Risk Assessment and Risk Management Plan, accessible from the linked document list in Appendix 2 of the RRP.

| Risks | Mitigating Measures |
|---|---|
| | internal control of TPS and PCU; (iii) development of a financial management training plan and all project financial staff to be trained before and during project implementation; (iv) a financial management manual will be prepared incorporating both government and ADB's requirements; (v) TPS to upgrade its accounting software 1C to allow access to all 18 branches; and (vi) the terms of reference for the required external audits to be agreed with the ADB.. |
| Prolonged government approval procedure by oversight agency | A PCU established within UCSA will manage project procurement and implementation, using international and national specialists. Advance action is also proposed to expedite initial project activities. There will also be close coordination with concerned government agencies to avoid delay in international contractor/supplier's registration. PCU and IA staff will participate in ADB procurement training. |
| Since TPS has been recently established under DCM 306, its institutional capacity is limited. | Project capacity building consultants will assist to strengthen TPS consumer accountability and service sustainability. |
| Revenue generation difficulties resulting from insufficient billing and collection | DCM 306 is enhancing the financial capacity of the TPS by mandating a unified tariff across Tashkent province. The MOF and Tashkent Provincial Government will assist the TPS in strengthening financial management, establishing billing and collection systems, and implementing 100% consumer metering activities. |

ADB = Asian Development Bank, DCM = Decree of Cabinet of Ministers, MOF = Ministry of Finance, PCU = Project Coordination Unit, TPS = Tashkent Provincial *Suvokova*, UCSA = *Uzkommunhizmat* (Uzbekistan Agency), Source: Asian Development Bank.

VIII. GENDER AND SOCIAL DIMENSIONS

116. The project has an “effective gender mainstreaming” category. As per ADB requirements, a gender action plan has been prepared and project design incorporates measures to promote gender equality and women’s empowerment, including sewerage system rehabilitation and expansion, sanitation awareness and hygiene promotion activities, improved customer service, capacity building, enhanced participation, and increased access to employment. Medium levels of civil society organization participation are envisaged during project implementation, including information gathering and sharing, consultation, and collaboration. On this basis, as per ADB requirements, a project-level communication and participation (C&P) plan has been prepared to ensure adequate participation of civil society, communities, and the poor and vulnerable in project implementation. This action plans, as detailed in the project’s summary poverty reduction and social strategy and described below, will be implemented and monitored by the UCSA PCU; and progress, achievements, and issues will be reported to ADB in quarterly project reports. The project will also comply with the minimum requirements of ADB’s Public Communications Policy (2011). The project’s communication strategy and associated C&P plan are summarized in Table 5 of PAM Section IX.E: Stakeholder Communication Strategy. Table 6 in Section IX.E provides the applicable ADB Public Communications Strategy.

117. Water supply and sanitation constraints in HHs negatively affect the quality of life of all family members and women especially. Only 21% of households connected to centralized water pipelines in Zangiata and 35% in Kibray district are provided with piped water on a ‘24/7 basis’. Because unstable water supply in the project area only 36% of HHs have a bathroom with piped water supply, and only 8.7% have a flushed toilet. Women and girls suffer from absence of bathrooms and bathe more badly compared with men and boys who, unlike females, are able to bathe publicly at yards or even in rivers and canals. Women are primarily responsible for water delivery. It is noteworthy that water fetching for a household currently involves 1.5 days’ of work each month. Water shortages also significantly increase the time needed for cooking, cleaning, and caring for both children, the sick and disabled members. 60% of HHs have a washing machine, but in 70% of cases the women cannot use the

devices because of the water shortages and low pressure, which causes additional 8-12 hours of hand work of women per HH a month. Women living in apartment blocks point out that water shortages negatively affect the work of the centralized sewerage system. As a result of the situation, it is the women who need to take away excrement when there are small children or people with disabilities in the apartment, and to accompany children to the outdoor toilet, especially in night time.

118. The project's GAP has been developed and allocated resources to enhance project impacts on women and in order to mitigate any project-related risks. The GAP includes performance targets and measurable indicators, and a timetable for activities implementation. 50% of outputs in the project DMF are gender-oriented. The GAP will be implemented by PCU under UCSA, and supported by PMC, districts' WSS operators and project contractors as well as by regional districts' khokimiyats, including deputy khokims on women's issues, 99 makhalla maslahatchi and regional and districts departments of health and education. Key features of the project's GAP include (i) the recruitment of a PCU Social specialist supported by an international and/or national Social Development and Gender Specialist in the Project Management Consultancy (PMC) with combined assignments on intermittent basis, (ii) facilitation of women's participation in project-associated activities, (iii) employment opportunities for women in areas such as laboratory and customer care operations (at least 30% of new laboratory staff and 30% of customer care workers for the TPS and two branches), (iv) equitable pay for women employed in the project management and implementation team, (v) a total of 99 community hygiene promotion and sanitation awareness trainings that will be primarily focused on women (at least 30% of participants are women), (vi) equal opportunity/access to training for the female staff of the TPS and its branches, (vii) establishment of a gender sensitive customer care/complaints unit, and (viii) gender-sensitive outreach activities, including television, radio spots and newspaper articles.

119. The project is bound to secure an increase in incomes, poverty reduction, and improvements of living standards for the population in the area. The expected social benefits of the proposed project activities include population's stable access to potable water of good quality, which will reduce the incidence of diseases and lower expenses on healthcare for the households. Providing an adequate water supply for social infrastructure (kindergartens, schools, healthcare institutions) and for private enterprises in the service and food-catering sectors will also reduce the risk of epidemics. The biggest benefits upon the realization of the Project are expected for poor households which have to reduce their consumption of potable water by replacing it with water from unsafe sources. A significant indirect effect for the population is envisaged in terms of widened employment and self-employment opportunities in such sectors of the economy as catering, service and the processing of agricultural produce. The projects will result in the reduction in the use of domestic child and female labor and reduce unproductive labor costs, sparing at a minimum, three working days for women in each HH for each month, which is bound to stimulate women's economic activities. Implementation of the Project will also contribute to the recovery and enhancement of the makhallas' social capital, by reducing the number of water supply related conflicts. Implementation of sanitation awareness and hygiene promotion activities will also assist to reduce the incidence of infectious diseases. All public education materials and training will use gender-specific designs and gender sensitive approaches and will involve regional and districts' Women's Committees, maslahatchi and other makhalla representatives.

120. Project success requires acceptance and active participation of communities - necessitating development of a C&P plan for project implementation. Project design and implementation approach embrace participation, assure information dissemination to and communication with the public, and provide for comprehensive involvement and strategic engagement of key stakeholders in detailed design, construction, and operation of improved sanitation facilities. Integral in planned implementation are consultative, capacity-building, and collaborative measures that strengthen inclusiveness and foster empowerment of consumers, especially women and the poor and vulnerable.

121. Project implementation relies on civil society engagement; first, to help tailor project outputs to community needs and aspirations and facilitate responsive implementation, and, second, to intermediate between the project and communities, extending the reach and reception of project impacts and benefits. As introduced above, makhalla women's advisors as civil society representatives and other community leaders have a strategic role in this dual interface. The project ensures adequate participation by incorporating capacity building program modules and by direct measures in gender mainstreaming, sanitation awareness and hygiene promotion; and communication and participation components supported by training, provision of materials, and a program of regular public consultation.

122. The project level C&P plan is comprised of participatory elements and activities lodged in the gender mainstreaming; project performance monitoring system; and social and environmental safeguards modules of the project's capacity building component and in its sanitation awareness and hygiene promotion and communication and participation components. Implementation responsibilities are vested in the PCU supported by project consultants and the capacity building program contractor. Support for participation plan implementation, including training, workshops, consultations, community-level activities, and city-level awareness campaigns is incorporated in the project budget. Implementation of key participation plan measures is also reflected in several DMF output indicators.

123. UCSA will also include specific provisions in bidding documents to ensure that civil works contractors (i) comply with core labor standards and applicable laws and regulations in Uzbekistan and incorporate applicable workplace occupational safety norms, (ii) do not differentiate payment between men and women for work of equal value, (iii) do not employ child labor in the construction and maintenance activities, (iv) eliminate forced or compulsory labor, (v) eliminate employment discrimination, (vi) to the extent possible, maximize employment of local poor and disadvantaged persons for project construction purposes, provided that the requirements for job and efficiency are adequately met, and (vii) disseminate information on the risks of sexually transmitted diseases, including human immunodeficiency virus/acquired immunodeficiency syndrome, to the employees of the contractors under the project and to members of the local communities near the project.

GENDER ACTION PLAN

| Objective | Activities | Indicators | Remarks/ Responsibility |
|--|--|---|--|
| Outcome: Improved access to reliable, sustainable and affordable water supply services in Tashkent Province (Zangiota and Kibray districts) | | | |
| 1. Women's burden of care, time poverty reduced | 1. Convene focus group discussions and meetings at makhalla level | 1.1 Qualitative and quantitative analysis conducted through discussions on reduced time poverty i.e. release from the drudgery of managing water and caring for family members | PCU and PCU SDGS in collaboration with khokimiyats and makhallas |
| 2. Public health condition improved | 2. Run public awareness campaigns in all project makhallas with no existing in-house connections | 2.1 Incidence of waterborne diseases in the Province reduced as follows: (i) acute intestinal infection decreased by 20% in 2030 and by 40% in 2043 (baseline 2016: 502/100,000 people); (ii) viral hepatitis decreased by 20% in 2030 and 50% in 2043 (baseline 2016: 250/100,000) 2.2 Share of households with bathrooms connected to water pipeline increased to 60% in 2021 as a result of provision of reliable water supply and hygiene trainings (baseline 2016: 36%) | PCU and PCU SDGS in collaboration with regional and districts health departments |
| Output 1. Kadirya regional water supply system improved and fully operational | | | |
| 1. Increase awareness on the Project and benefits to households from use of improved water services | 1. Organize public awareness campaigns (in collaboration with local government, CBOs, and mass media) on water saving and hygiene/sanitation promotion | 1.1 At least 50% of the project households reached by public awareness campaign primarily targeting women and girls. 1.2 At least 80,000 women and girls have access to improved services by 2018-2020 (baseline: to be confirmed) 1.3 Set of sanitation awareness and hygiene promotion training aids for dissemination developed for local community/households and school 1.4 Four gender informational modules for women and men 1.5 99 women advisors (maslakhatchi) in all project makhallas and 100 teachers/school nurses in schools/kindergartens trained as community trainers 1.6 At least 50% of hygiene promotion teams are women 1.7 99 community hygiene promotion and sanitation awareness trainings are replicated in 99 makhallas on annual basis in 2018-2020. 1.8 Representatives of 5,000 households (primarily women) are covered annually (15,000 or about 45% of the Project area households in total). 1.9 Trainings include distribution of basic hygiene reference sources to men and women, boys and girls. 1.10 Outreach activities for schoolchildren are conducted annually in 2018-2020 by trained teachers/nurses in all 100 project schools. | PCU and PCU SDGS in collaboration with regional and districts deputy khokims responsible for women's issues, Education and Health departments of khokimiyats, makhallas, UNICEF, WCU, maslakhatchi |

| Objective | Activities | Indicators | | Remarks/ Responsibility |
|---|---|------------|--|---|
| | | 1.11 | Media kit is prepared by 2019. | |
| | | 1.12 | Annual regional level outreach activities (TV/radio spots newspaper articles) linked to WSS improvements and hygiene/sanitation awareness carried out annually in 2018-2020. | |
| | | 1.13 | At least 30% women participate in project trainings, seminars, workshops and meetings | |
| 2. Ensure women participate in and benefit from project | 2. Support women's participation in project-associated activities increased | 2.1 | At least 30% of participants in public consultations, hearings, and meetings on project interventions are women | UCSA, PCU ESSS, PMC SDGS in coordination with CBCC, WCU, Deputy khokims and maslahatchi |
| | | 2.2 | At least 90% of project beneficiaries express satisfaction with water quality in 2021 (baseline 2016: 45.6%) | |
| | | 2.3 | Sex-disaggregated data collected and analyzed | |
| Output 2. Improved financial, operational and system management of Tashkent Province Suvokova (TPS) for Zangiota and Kibray districts | | | | |
| 3. To strengthen TPS and district branches management with special focus on women | 3.1 Promote women's career development and increase their numbers and participation in the water sector | 3.1.1 | All new jobs in PCU/PMC and WSS units are advertised with a statement encouraging women to apply | PCU ESSS, PMC SDGS in coordination with CBCC |
| | | 3.1.2 | Women are represented in utility training, capacity building, study tours in proportion to the percentage of positions held by women in staff category | |
| | | 3.1.3 | All technical and financial management staff of the TPS and two district branches trained by 2019, (at least 30% women) (baseline: to be confirmed) | |
| | | 3.1.4 | Sex-disaggregated human resource database developed | |
| | | 3.1.5 | Yearly report on HR informed by gender analysis | |
| | 3.2 Staff and operate Water quality laboratory | 3.2.1 | One newly equipped water quality laboratory fully staffed with at least 30% female staff by 2021 (baseline: none) | |
| | 3.3 Establish and monitor gender sensitive customer care/complaints mechanism | 3.3.1 | Customer care units set up and staffed with at least 30% women at the TPS, Zangiota and Kibray district branches by 2021 (baseline: none) | PCU ESSS, PMC SDGS, TPS and districts utilities |
| | | 3.3.2 | Sex disaggregated customer database established and updated yearly. Analysis reported to management annually | |
| | | 3.3.3 | Sex-disaggregated complaints database is developed and analysis reported yearly to management. | |
| 4. Ensure implementation, monitoring and periodical reporting of GAP | 4. Recruit Social Development and Gender Specialists (SDGS) with combined assignments on intermittent basis | 4.1 | SDGS available to PMC with sufficient budget allocated for GAP implementation | PCU ESSS and PMC SDGS |
| | | 4.2 | Sex-disaggregated project performance benchmarking system developed by 2021 (data is collected, monitored and evaluated) | |
| | | 4.3 | Baseline/end-line gender information is collected and incorporated into reporting | |
| | | 4.4 | Gender-inclusive project monitoring/ evaluation system developed and fully operational | |
| | | 4.5 | GAP implementation reports are submitted semi-annually and included in overall project reports | |

| Objective | Activities | Indicators | Remarks/ Responsibility |
|---|--|--|-------------------------------------|
| 5. Project participants aware of GAP implementation and relevant DMF indicators and covenants | 5. Conduct GAD awareness training for main stakeholders on GAP implementation and linkage to the project goals | 5.1 At least one joint GAD awareness regional training in TPS with participation of UCSA, PCU, TPS and two districts branches, project districts' khokimiyats and CBCC and WTP DBM contractor conducted; and at least one associated report produced in 2021 | UCSA, TPS, PCU ESSS, PMC SDGS |

CBCC = capacity building component contractor; CBO = community-based organizations, makhallas, and Rural Assemblies of Citizens; DBM = design, build, and maintain; DMF = design and monitoring framework; ESSS = environmental and social safeguards specialist; GAD = gender and development; GAP = gender action plan; SDGS = social development and gender specialist; khokimiyat = municipal administration; khokim = municipal mayor; makhalla = community-based local institution; maslahatchi = advisor on women's issues at makhalla; PCU = project coordination unit; PMC = project management consultancy; TPS = Tashkent Provincial Suvokova (state unitary enterprise); UCSA = *Uzkommunhizmat* (Uzbekistan Agency); WCU = Women's Committee of Uzbekistan; WSS = water supply and sanitation; WTP = water treatment plant

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Project Design and Monitoring Framework

| Impact the Project is Aligned With: Improved living standards, health, and economy in Tashkent Province (Project defined). | | | |
|--|--|---|--|
| Project Results Chain | Performance Indicators with Targets and Baselines | Data Sources and Reporting Mechanisms | Risks |
| Outcome Improved access to reliable, sustainable, and affordable water supply services in Zangiota and Kibray Districts of Tashkent Province | a. 100% of the population of 58 settlements (Zangiota: 38 settlements, Kibray: 20 settlements) connected to the Kadiyya regional water supply system have access to reliable and safe water supply by 2022 (baseline 2016: 32,880 households and 159 commercial entities with irregular service) b. Kadiyya regional water system provide 24 hours a day water supply to 58 settlements (Zangiota: 38 settlements, Kibray: 20 settlements) by 2022 (baseline 2016: 12.6 hours/day) c. Public satisfaction with quality of water supply increased to 90% by 2022 (baseline 2016: 46%) d. Bills collection for water supply services increased to 95% by 2022 (baseline 2016: 85%) | a-d. EA project completion report and survey report | Revenue generation difficulties resulting from insufficient billing and collection |
| Outputs 1. Kadiyya regional water supply system improved | 1a. Water treatment plant newly constructed with capacity of 105,000 m ³ /day that meets appropriate water quality standards by 2021 (baseline: not applicable) 1b. 58.3 km transmission lines rehabilitated according to agreed specification by 2021 (baseline: not applicable) 1c. 17 distribution centers (8 new, 9 rehabilitated) with 365.0 km distribution network newly constructed and/or rehabilitated according to agreed specifications by 2021 (baseline: not applicable) 1d. One newly equipped water quality laboratory fully staffed by 2021 and at least 30% of staff are women (baseline: none) 1e. Warehouse with central maintenance workshop operated by TPS starting from 2021 (baseline: none) | 1a-1e. TPS project progress, EA project completion report | Prolonged government approval procedure by oversight agency |
| 2. Improved financial, operational, and system management of the Tashkent Province <i>Suvokova</i> State Unitary Enterprise for Zangiota and Kibray | 2a. All technical and financial management staff of the TPS and its District branches (at least 30% are women) trained by 2020 (baseline: not applicable) 2b. Customer care units set up and staffed with 30% women at the TPS and its Zangiota and Kibray District branches by | 2a-2h. TPS project progress reports, EA project completion report | High turnover of trained staff affects performance |

| | | | |
|---|--|--|--|
| District branches | 2021 (baseline: none) | | |
| | <p>2c. Household water meters installed in 100% of connected households in the Zangiota and Kibray project area from 2022 and onwards (baseline 2016: 15%)</p> <p>2d. Computerized financial management system implemented starting 2021 (baseline: none)</p> <p>2e. Sex-disaggregated project performance benchmarking system developed by 2021 (baseline: none)</p> <p>2f. Sex-disaggregated human resource database developed (baseline: none)</p> <p>2g. 50% of the project households covered under public awareness campaign, primarily targeted on women and girls. About 80,000 women and girls at school age are covered in 2018-2022 (baseline: none)</p> <p>2h. 50% member of hygiene promotion team are women (baseline: none)</p> | | |
| Key Activities with Milestones <ol style="list-style-type: none"> 1. Kadirya regional water supply system improved <ol style="list-style-type: none"> 1.1. Mobilize consultants by Q3 2017. 1.2. Advance actions completed by Q2 2017 1.3. Award civil works contract(s) by Q3 2018. 1.4. Complete equipment procurement by Q2 2021. 1.5. Complete civil works contract(s) by Q4 2021. 2. Improved financial, operational and system management of the Tashkent Province Suvokova (state unitary enterprise) for Zangiota and Kibray District branches <ol style="list-style-type: none"> 2.1. Mobilize consultants by Q3 2017. 2.2. Develop and implement capacity building programs by Q2 2020. 2.3. Complete procurement contract(s) by Q2 2020. 2.4. Conduct consumer survey by Q4 2021. Project Management Activities Strengthen Project Coordination Unit in UCSA. Convene regular Interagency Council meetings. Prepare and submit project progress reports. | | | |
| Inputs ADB: \$120.90 million (loan) Government: \$22.93 million | | | |
| Assumptions for Partner Financing Not Applicable | | | |

ADB = Asian Development Bank; ADF = Asian Development Fund; EA = Executing Agency; TPS = Tashkent Provincial Suvokova (state unitary enterprise); UCSA = *Uzkommunhizmat* (Uzbekistan Agency).
Source: Asian Development Bank

B. Monitoring

124. **Project performance monitoring.** UCSA will establish the project performance monitoring and evaluation system within 6 months of loan effectiveness using the targets, indicators, assumptions, and risks in the design and monitoring framework. The midterm review will include an evaluation on whether project implementation accords with the project objectives and scope. The data for output and outcome indicators will be updated and reported through the quarterly progress report and after each ADB review mission.

125. **Compliance monitoring.** UCSA will monitor and ensure compliance with applicable covenants of the Loan and Project Agreements. This will be reported through the quarterly progress reports and ADB review missions.

126. **Environment Safeguard Monitoring.** The Contractor(s) EO is responsible for the preparation of weekly environmental checklists and environmental section in monthly progress reports that shall be submitted to the PMC for review. Based on site inspection and Contractors' reports, the PMC shall be responsible for preparing an environmental section of detailed Quarterly progress Reports to submit to PCU. The PMC is also responsible for assisting PCU in preparing semi-annual Environmental Monitoring Reports (EMRs) and final EMR including post-construction environmental audits. If there are any changes in the design or alignment or if there are any unanticipated impacts, the IEE/EMP will be updated to account for any additional or new environmental impacts and relevant corrective actions. In January and July every year, PCU will submit semi-annual environmental monitoring reports to ADB and relevant government authorities, and these reports will be disclosed to the public on the UCSA (in Uzbek or Russian) and ADB (in English) websites.

127. **LARP monitoring.** The EA, PMU, PIU and social safeguards (resettlement) specialist and associate will be responsible for monitoring social safeguards (resettlement) activities. Findings will be incorporated in the quarterly progress reports and reflected in the semi-annual safeguards monitoring reports to ADB. Internal monitoring requirements are specified in the LARP. The awarding of civil works contract will be done only after affected farmers receive full payment of compensation, and report on full payment of compensation needs to be submitted to ADB. The advance payment to the contractor can only be released by ADB after the report on full payment is received by ADB. Monitoring reports will also include information on the status and resolution of any grievance and complaints issues received by the EA PMU/PIU.

128. **Gender and social dimensions monitoring.** Implementation of GAP and Communication and Participation Action Plan will be overseen and monitored by Environmental and Social Safeguards Specialists with poverty, gender, resettlement and social impact monitoring responsibilities included in PCU staffing and supported by an international and/or national Social Development and Gender Specialist in the PMC with combined assignments on intermittent basis. The PCU Environmental and Social Safeguards Specialists, supported by PMC, will establish an effective monitoring and reporting system based on sex-disaggregated data collected during public consultation and obtained from implementation team, TPS and its district branches, contractors and other parties, including maslakhatchi trainers who will provide community hygiene promotion and sanitation awareness trainings. The GAP indicates these responsibilities and provides performance indicators/targets for other GAP-associated actions. Monitoring results will be included in the quarterly submitted GAP implementation progress reports. Key activities, outputs, and associated indicators have also been established for C&P plan implementation and will be similarly monitored by the TPS, PCU and PMC.

C. Evaluation

129. An ADB inception mission will be fielded after the signing of the Loan and Project Agreements to agree with the EA on implementation requirements of the project as well as to discuss in detail the procedures relating to the procurement of works and goods, recruitment of consultants, and disbursements. ADB and the government will undertake semiannual reviews of the project to consider the (i) scope of the project, (ii) implementation arrangements, (iii) compliance with Loan and Project Agreement covenants, (iv) physical achievements against targets and milestones, and (v) project implementation issues requiring resolution or action.

130. A midterm review will be made after two years of the loan effectiveness date. The review will evaluate in detail the implementation progress and project design (institutional, administrative, organizational, technical, environmental, social, poverty reduction, resettlement, economic, and financial aspects), and identify courses of action that would improve project performance, viability, and the achievement of targets and project objectives. All the assumptions and risks noted in the design and monitoring framework will be reviewed.

131. Within 6 months of physical completion of the project, the EA will submit a project completion report to ADB.²⁰ ADB will undertake a project completion review of the project after 12-24 months from the physical completion date.

D. Reporting

132. UCSA through the PCU will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions; (c) updated procurement plan and (d) updated implementation plan for next 12 months; and (iii) a project completion report within 6 months of physical completion of the Project. To ensure projects continue to be both viable and sustainable, project accounts should be adequately reviewed.

E. Stakeholder Communication Strategy

133. The stakeholder communication strategy for the project aims to increase public awareness on project benefits and improve sustainability of water supply and sewerage system improvements and to promote public feedback during the detailed design, construction, and operation phases of the facilities. The project's preliminary C&P plan has been summarized in Table 4 below. The C&P plan will be refined on the basis of hygiene baseline studies and updated during the detailed design phase. Table 5 provides the associated ADB Public Communications Strategy. Project information will be strategically disseminated through media and regular public consultations at main milestones including loan signing, contract awards and project completion and a grievance redress mechanism will be established by the UCSA PCU to respond to concerns of affected persons and the public.

²⁰ Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

Table 4: Preliminary Communication and Participation Plan for the Project

| Communications Context: <i>Public support and sustainability of the improved sanitation system requires increased public awareness of the benefits of these investments to their health and well-being, particularly that of women, and better understanding of proper system use. Transparency during project implementation will lead to improved project quality and provide an effective mechanism for receiving and addressing public feedback.</i> | | | | | | | | | |
|---|--|---------------------------------|--|---|--|---|--|---|--|
| Project Objective: Improved water supply services and management for the residents of Tashkent Province and health and enhanced opportunities for socio-economic development. | | | | | | | | | |
| Strategic Elements | | | | | | Work Plan Elements | | | Evaluation |
| Communication Objective | Key Risks | Audience | Current/ desired behavior | Messages/ Info Needs | Channel Activity | Time | Responsibility | Resource Needs | Expected Outcomes |
| 1. Raised public awareness of the project the health and other benefits of its sanitation system improvements | Inability to reach the entire population /overcome potential reluctance to connect | Households in Tashkent Province | Increase in public practice of improved hygiene and willingness to connect to and pay for improved water supply system | Health and time-saving benefits, affordability, safe installation and proper uses | Sanitation awareness and hygiene promotion campaign including community-level and outreach program through media-Local TV, radio and newspaper ads and articles Dissemination of project information and public consultations | dissemination of project information, and consultations over remainder of implementation period | PCU (Through Environmental and Social Safeguards Specialist) | 99 community hygiene promotion and sanitation awareness trainings are replicated in 99 makhallas. Trainings include distribution of basic hygiene reference sources that target girls and their mothers and aware men and boys about importance of sharing their responsibility for water and sanitation; Age/gender-specific informational kits are delivered to all project schools; | Improved hygiene practices in households and schools. Reduced incidence of sanitation-associated disease. Widespread acceptance of water supply improvements , high rate of new connections by potential beneficiaries and willingness to pay for them |

| Communications Context: <i>Public support and sustainability of the improved sanitation system requires increased public awareness of the benefits of these investments to their health and well-being, particularly that of women, and better understanding of proper system use. Transparency during project implementation will lead to improved project quality and provide an effective mechanism for receiving and addressing public feedback.</i> | | | | | | | | | |
|---|-------------------------------------|----------|----------------------------------|---|--|-----------------------------|----------------|---|--|
| Project Objective: Improved water supply services and management for the residents of Tashkent Province and health and enhanced opportunities for socio-economic development. | | | | | | | | | |
| Strategic Elements | | | | | | Work Plan Elements | | | Evaluation |
| Communication Objective | Key Risks | Audience | Current/ desired behavior | Messages/ Info Needs | Channel Activity | Time | Responsibility | Resource Needs | Expected Outcomes |
| | | | | | | | | Trainings include modules on importance of connection to water supply system for households' heads in all project makhallas with no existing in-house connections (the number is to be determined at the final design stage). | |
| 2. People affected by LAR are informed of their rights and the plans to compensate and assist them | Complaints from APs may cause delay | APs | Maintain support for the project | AP entitlements and schedule of LARP implementation | Visits by PCU, and/or consultant team Distribution of brochures and posting of approved LARP on the ADB and UCSA websites | Upon approval of final LARP | PCU | Included in project LARP budget | No complaint received from APs on their entitlements and compensation received |

| Communications Context: Public support and sustainability of the improved sanitation system requires increased public awareness of the benefits of these investments to their health and well-being, particularly that of women, and better understanding of proper system use. Transparency during project implementation will lead to improved project quality and provide an effective mechanism for receiving and addressing public feedback. | | | | | | | | | |
|--|--|--------------------------------|--|--|--|--------------------|---|--|---|
| Project Objective: Improved water supply services and management for the residents of Tashkent Province and health and enhanced opportunities for socio-economic development. | | | | | | | | | |
| Strategic Elements | | | | | | Work Plan Elements | | | Evaluation |
| Communication Objective | Key Risks | Audience | Current/ desired behavior | Messages/ Info Needs | Channel Activity | Time | Responsibility | Resource Needs | Expected Outcomes |
| 3.Stakeholders informed of likely environmental impacts during construction and mitigation measures planned and eventually conducted | Complaints from local communities may cause delay | Residents of Tashkent Province | Maintain support for the project | Info on project environmental impacts and mitigation measures | Visits by PCU, and/or consultant team Posting of updated IEE/EMP and EMRs in the ADB and UCSA websites Explanations by contractors | | PCU, and/or consultant team and contractors | Included in project EMP budget | No complaint received from local community on management of environmental impacts from the subprojects |
| 4.Stakeholders/ general public informed of mechanism for providing feedback, improving project quality | Unidentified feedback or unresolved concerns may affect quality of construction and operations of the facilities | Residents of Tashkent Province | Improved public feedback and support for the construction activities and improved quality of water supply system service | Info on how stakeholders/beneficiaries may engage with the project; consumer advocacy, grievance redress | Dissemination of project information, regular public consultations, brochures on RP Visits by PCU and/or consultant team Media | | PCU | Sanitation awareness and hygiene promotion and consultation costs as in Item 1, above. | Public feedback/ complaints are received and addressed leading to improved quality of construction and improved water supply system operations and management |

| Communications Context: <i>Public support and sustainability of the improved sanitation system requires increased public awareness of the benefits of these investments to their health and well-being, particularly that of women, and better understanding of proper system use. Transparency during project implementation will lead to improved project quality and provide an effective mechanism for receiving and addressing public feedback.</i> | | | | | | | | | |
|---|---|-------------------------|--|--|--|---------------------------------------|---------------------------------------|----------------|---|
| Project Objective: Improved water supply services and management for the residents of Tashkent Province and health and enhanced opportunities for socio-economic development. | | | | | | | | | |
| Strategic Elements | | | | | | Work Plan Elements | | | Evaluation |
| Communication Objective | Key Risks | Audience | Current/ desired behavior | Messages/ Info Needs | Channel Activity | Time | Responsibility | Resource Needs | Expected Outcomes |
| 5. Bidders and the public are informed of contract awards | Complaints from bidders or interested parties may delay works | Bidders/ general public | Improved trust in the selection of civil works contractors | Information on results of bid evaluation | UCSA website Publication in local newspaper | Upon signing of bid evaluation report | PCU (through Procurerment Specialist) | | Improved transparency in contracting and procurement, and improved public trust |
| 6. General public is informed of project expenditures | Low public trust on the expenditure | General public | Improved public trust | Audited financial reporting | UCSA website ADB web disclosure | Within 30 days upon receipt | ADB Project Team | | Improved transparency and public trust in expenditures related to the project |

ADB = Asian Development Bank, AP = affected persons, IEE = initial environmental examination, EMP = environmental management plan, EMR = environmental management report, LAR = land acquisition and resettlement, LARP = land acquisition and resettlement plan, PCU = project coordination unit, UCSA= *Uzkomunhizmat* (Uzbekistan Agency).

Table 5: ADB Public Communications Strategy

| Project Documents | Means of Communication | Responsible Party | Frequency | Audience(s) |
|--|-------------------------------|--------------------------|---|---|
| Project Data Sheet (PDS) | ADB's website | ADB | initial PDS no later than 30 calendar days of approval of the concept paper; updated twice a year | General Public |
| Initial Environmental Examination | ADB's website | ADB | at least 7 days prior to Staff Review Meeting | General Public |
| Resettlement Planning Documents | ADB's website | ADB | post fact-finding mission | General Public, project-affected people in particular |
| Report and Recommendation of the President | ADB's website | ADB | within 2 weeks of Board approval of the loan | General Public |
| Legal Agreements | ADB's website | ADB | no later than 14 days of Board approval of the project | General Public |
| Summary Poverty Reduction and Social Strategy | ADB's website | ADB | within 2 weeks of Board approval of the loan | General Public |
| Project Administration Manual | ADB's website | ADB | within 2 weeks of Board approval of the loan | General Public |
| Social and Environmental Monitoring Reports | ADB's website | ADB | routinely disclosed, no specific requirements | General Public, project-affected people in particular |
| Major Change in Scope | ADB's website | ADB | within 2 weeks of approval of the change | General Public |
| Completion Report | ADB's website | ADB | within 2 weeks of circulation to the Board for information | General Public |
| Evaluation Reports | ADB's website | ADB | routinely disclosed, no specific requirements | General Public |
| Performance of the project with clearly defined information requirements and indicators, policy construction and reconstruction, business opportunities, bidding process and guidelines, results of bidding process, and summary progress reports of ongoing projects. | UCSA's website | UCSA | per project's quarterly progress report | General Public |

X. ANTICORRUPTION POLICY

134. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the Project.²¹ 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.²²

135. To support these efforts, relevant provisions are included in the loan agreement and the bidding documents for the Project.

²¹ Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

²² ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>

XI. ACCOUNTABILITY MECHANISM

136. 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.²³

²³ For further information see: <http://www.adb.org/Accountability-Mechanism/default.asp>.

XII. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL

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