

PROJECT PREPARATORY TECHNICAL ASSISTANCE

A. Justification

1. The project preparatory technical assistance (PPTA) will assist the government to conduct feasibility study, due diligence, and safeguard assessment for the proposed ISDP II project, particularly to ensure that the bank's safeguard standard should be strictly implemented in the Issyk-Kul area. Moreover, to ensure long term financial and environmental sustainability, initial cost recovery actions and tourism development activities must be identified.

B. Major Outputs and Activities

2. The major outputs and activities are summarized in Table A3.1.

Table A3.1: Summary of Major Outputs and Activities

| Deliverable/Milestone | Expected Completion Date |
|---|--------------------------|
| 1 Inception Report | November 2016 |
| 2 Social Safeguard Survey | February 2017 |
| 3 Draft PSA Report | February 2017 |
| 4 Alternative and cost comparison analysis | March 2017 |
| 5 Alternative selection – Review cost estimates | March 2017 |
| 6 Resettlement Survey, Draft LARP and Safeguard Documents | March 2017 |
| 7 LARP and Safeguard Documents – Final | April 2017 |
| 8 Draft EIA | April 2017 |
| 9 Socio-Economic Survey, IPSA, Draft SPRSS | April 2017 |
| 10 EIA Final | May 2017 |
| 11 Interim Report | May 2017 |
| 12 Socio-Economic Documents, SPRSS (Final), GAP, PSA | May 2017 |
| 13 Financial Management and Capacity Assessment | May 2017 |
| 14 Draft Capacity Building, Institutional Development Program | May 2017 |
| 15 Preliminary Financial and Economic Analysis | May 2017 |
| 16 Final Financial and Economic Analysis | May 2017 |
| 17 Draft Final Report | June 2017 |
| 18 ADB Fact-Finding Mission | June 2017 |
| 19 Final Report | June 2017 |

GAP = gender action plan, EIA= environmental impact assessment, LARP = land acquisition and resettlement plan, PSA = poverty and social analysis, SPRSS = summary poverty reduction and social strategy.

C. Cost Estimate and Proposed Financing Arrangement

3. The TA is estimated to cost \$650,000 equivalent which will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-V). The government will provide counterpart support in the form of counterpart staff, office and housing accommodation, office supplies, secretarial assistance, domestic transportation, provision of office space, communication facilities for consultants, and other in-kind contributions. The detailed cost estimates is presented in Table A3.2.

Table A3.2: Cost Estimates and Financing Plan
(\$'000)

| Item | Total Cost |
|---|------------------|
| Asian Development Bank^a | |
| 1. Consultants | |
| a. Remuneration and per diem | |
| i. International consultants (22 person-months) | 317,350.0 |
| ii. National consultants (28 person-months) | 78,320.0 |
| b. International and local travel | 147,590.0 |
| c. Reports and communications | 5,000.0 |
| 2. Equipment (computer, printer, etc.) | 5,000.0 |
| 3. Workshops, training, seminars, and conferences | 25,000.0 |
| 4. Surveys | 50,000.0 |
| 5. Contingencies | 21,740.0 |
| Total | 650,000.0 |

^a Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF V).
Source: ADB staff estimates.

D. Consulting Services

4. The PPTA team will consist of 11 international and 6 national consultants. The total input will be 22 international person-months and 28 national person-months. ADB will recruit individual consultants and a firm in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). The Urban Development Specialist will be recruited individually. The rest will be recruited through a firm through simplified technical proposal. Quality- and cost-based selection method (90:10) will be adopted to ensure consulting services quality.

Table A3.3: Summary of Consulting Services Requirement

| No. | Expertise | Inputs (PM) |
|----------------------|--|-------------|
| International | | |
| 1 | Team Leader and Wastewater Engineer | 4.0 |
| 2 | International Project Financial/Tariff Specialist | 3.5 |
| 3 | International Project Economics Specialist | 1.0 |
| 4 | International Environmental Specialist | 2.0 |
| 5 | International Social Safeguard (Resettlement) Specialist | 2.0 |
| 6 | International Institutional Specialist (Capacity Building) | 2.0 |
| 7 | Social Development and Gender Specialist | 2.0 |
| 8 | Water Quality Monitoring Specialist | 1.0 |
| 9 | Urban Development Specialist | 3.0 |
| 10 | Climate Change Specialist | 0.5 |
| 11 | Procurement Specialist | 1.0 |
| | Subtotal | 22.0 |
| National | | |
| 1 | National Wastewater Engineer (Deputy Team Leader) | 8.0 |
| 2 | National Hydrologist | 2.0 |
| 3 | National Finance and Economics Specialist | 6.0 |
| 4 | National Environmental Specialist | 4.0 |
| 5 | National Social Safeguard Specialist | 4.0 |
| 6 | National Gender and Social Development Specialist | 4.0 |
| | Subtotal | 28.0 |

Source: ADB staff estimates.

5. The outline terms of reference for the project preparatory TA consultants are described in paras. 6 to 36.

6. **Team Leader and Wastewater Engineer** (international, 4 person-months): The Team Leader and Wastewater Engineer will carry out the following tasks: (i) provide overall guidance and leadership to the team; (ii) prepare and finalize PPTA report; (iii) prepare and finalize feasibility report; (iv) prepare bid documents and support the executing agency (EA) in selecting detailed design and project management support consulting firms following the country design standards; (v) confirm due diligence study including operational and financial sustainability as the criteria to select the technology; (vi) prepare cost estimates; (vii) prepare conceptual design including the general background of the Issyk-kul lake including the annual inflow and wastewater/solid waste pollution received; and (viii) coordinate with others in the sector in capacity building activities for utilities.

7. The Team Leader will be a senior expert with engineering degree and at least 15 years of work experience in urban water supply and sanitation services, including experience in sector policy dialogue, sector development and finance, water utility management, utility financial and operational performance improvement, nonrevenue water reduction and utility asset management, identification of appropriate subprojects to meet objectives, and investment program preparation. The Team Leader should have the knowledge of ADB procedures and experience leading similar ADB projects is preferred while relevant work experience in Central Asia and knowledge of Russian are highly desirable.

8. **Project Financial Specialist/Tariff Specialist** (international, 3.5 person-months): The Project Finance and Specialist, with support from national Finance and Economy Specialist will: (i) to undertake financial management assessment of all executing and implementing agencies and suggest capacity building and institutional strengthening action plans; (ii) to assess local tariff regimes, legislation, affordabilities, and WTP, and propose detailed tariff regimes and mechanisms for implementation (iii) prepare the financial evaluation of the proposed investment components according to ADB's Guidelines for the Financial Analysis and Management of Projects (2005), the Financial Management Assessment Questionnaire (2005), and the Financial Due Diligence Methodology Note (2005); (iv) explore existing water company's increase in tariff; (v) propose tariff structure focusing on increased income from industries; (vi) propose tourism-related taxes for Issyk-kul oblast; and (vii) undertake financial modelling, suggest innovative revenue or government support financing mechanisms, financial covenants. In addition, the specialist will prepare the fund flow/disbursement arrangements based on the results of the financial management assessment. In case the imprest fund and statement of expenditures procedures are proposed for the ensuing project, this will include assessments of the relevant entity's capacity to manage such procedures, particularly without specific ceilings, in line with the Midterm Review Action Plan and the Loan Disbursement Handbook.

9. The Project Finance Specialist should have at least 15 years relevant experience in developing countries preferably ADB-funded. Specialist should be a Certified Public Accountant (CPA), or Chartered Accountant (CA). Relevant experience in Central Asia is highly desirable.

10. **Project Economics Specialist** (international, 1 person-month): The Project Economics Specialist will (i) undertake the economic analysis of the proposed investment components based on ADB's Guidelines for the Economic Analysis of Projects and assess their economic viability and in consultation with the international Social Safeguard, Resettlement, and Gender Specialist; (ii) incorporate poverty reduction impacts in accordance with ADB's Handbook on Integrating Poverty Impact Assessment in the Economic Analysis of Projects; and (iii) guide local surveyors in conducting a survey on willingness-to-pay. The economic analysis should be based on the "*ADB Economic Analysis for Investment Project Guidelines*" and covers the 10 key areas of the economic analysis.

11. The Project Economics Specialist should have at least 15 years relevant experience in developing countries preferably ADB-funded. Relevant experience in Central Asia is highly desirable.

12. **Environment Specialist** (international, 2 person-months): The Environment Specialist will: (i) prepare and finalize rapid environmental assessment checklist to determine environment category; (ii) provide guidance and quality assurance for conducting environmental survey and testing required for the environmental impact assessment (EIA); (iii) assist project management office (PMO) by taking the lead in presenting EIA scopes and EIA draft summary at public consultation as required by ADB's Safeguard Policy Statement (SPS 2009) for A-category projects; (iv) prepare an EIA report meeting SPS 2009 requirements and finalize the EIA incorporating comments from ADB and other stakeholders including PMO, the State Agency for Environmental Protection and Forestry (SAEPF), local environmental and Issyk-kul Biosphere management authorities, cofinancier, nongovernment organizations and potential project affected people etc.; (v) provide guidance and supervision for quality assurance to the national environmental specialist; and (vi) work closely to get technical inputs from the Water quality monitoring specialist, the Wastewater Engineer, the Hydrologist, and the Institutional Specialist in preparing the EIA, including fully-costed environmental management plan and a capacity building plan for supporting environmental protection and enforcement.

13. The Environment Specialist should have a degree in environmental engineering or environmental science (MSc or higher preferred) with a minimum of 15 years relevant work experience in Environmental assessment and management. Experience in Central Asia and working with ADB projects is highly desirable.

14. **Social Safeguard (Resettlement) Specialist** (international, 2 person-months): Following SPS 2009, the Social Safeguard (Resettlement) Specialist will: (i) provide guidance to national Social Development Specialist on socioeconomic survey and social impact assessment; (ii) conduct stakeholders consultation and analysis; (iii) prepare analysis of survey results; (iv) provide inputs on social dimension and safeguard component on all project documents; and (v) prepare and finalize the resettlement plan, resettlement frameworks, gender action plan, summary of poverty reduction and social strategy, , indigenous peoples impact categorization, and involuntary resettlement impact categorization. Together with the national Social Safeguard and Resettlement Specialist, will (i) prepare involuntary resettlement categorization checklist; (ii) due diligence report on land acquisition and resettlement; (iii) for subprojects involving land acquisition and resettlement, prepare a land acquisition and resettlement plan, and monitoring, disclosure and grievance procedures; (iv) coordinate with project team to ensure that mitigation measures are integrated into the project design features; (v) ensure that resettlement-related information are well considered and included in the program communication plan; (vi) assess the capacity of executing agency to screen impacts, prepare and implement resettlement plans; and (vii) recommend appropriate capacity development

activities to develop or enhance safeguards knowledge and skills of executing agency.

15. The Social Safeguards (Resettlement) Specialist will have a degree in social science, anthropology, or human ecology (MSc degree or higher preferred) with at least 15 years work experience in involuntary resettlement issues, indigenous peoples, gender, and poverty reduction. Relevant experience in Central Asia is highly desirable.

16. **Social Development and Gender Specialist** (international, 2 person-months): The Specialist should (i) collect sex-disaggregated baseline data in order to set appropriate gender targets in the gender action plan (GAP); (ii) support improvement of the collection of sex-disaggregated data and information for the qualitative elements of the GAP matrix; and (iii) collect the qualitative benefits from the provision of water supply and sanitation, and solid waste management

17. **Institutional Specialist-Capacity Building** (international, 2 person-months): The Institutional Specialist will (i) analyze existing institutional setting and capacities of public utilities; (ii) suggest resources for public utilities reforms including out-sourcing, developing sustainable operations, community engagement and capacities to operate new infrastructure; (iii) identify resources required for detailed design and supervision of the project; (iv) review policies on anti-corruption and disclosure and suggest implementation option under the project; and (v) suggest inputs for the EA to implement business plan, consultation, and develop an urban strategy/legislation.

18. The Institutional Specialist will have a degree in social science, governance, public administration (MSc degree or higher preferred) with a least 15 years of relevant working experience.

19. **Water Quality Monitoring Specialist** (international, 1 person-month): The expert will (i) conduct consultation with relevant government agencies on water quality protection; (ii) conduct consultant with relevant donors and stakeholders; (iii) access the existing water quality monitoring program including ground water; (iv) prepare a new water quality improvement program; and (v) identify the main risks to the sustainability of the water quality in Issyk-Kul including point and non-point pollution.

20. The Specialist should have at least 15 years relevant experience in developing countries preferably ADB-funded. Relevant experience in Central Asia is highly desirable.

21. **Urban Development Specialist** (international, 3 person-months): The expert will work with team leader to: (i) conduct consultation with relevant government agencies in Issyk-kul; (ii) conduct high level consultation with central government of the Kyrgyz Republic and other oblast/towns in the Kyrgyz Republic; (iii) identify the possible urban development trend and economic drivers for Issyk-kul area; and (iv) prepare a possible pre-feasibility study for future urban project in the Kyrgyz Republic.

22. The specialist should have at least 15 years relevant experience in developing countries preferably ADB-funded. Relevant experience in Central Asia is highly desirable.

23. **Climate Change Specialists** (international, 0.5 person-month): The Climate Change Specialist will identify expected climate change hazards relevant to the project. They will work with the Hydrologist, Team Leader, and Wastewater Engineer to: (i) identify and assess impacts and risks to the project structure, operation, maintenance and longevity; (ii) assess and recommend appropriate climate adaptation measures to incorporate into project design; (iii) estimate the incremental cost of the adaptation options; and (iv) conduct the climate change review on the project due to its location and link to the snow melt streams.

24. The International Climate Change Specialist will have an advanced degree, preferably a Masters or PhD in hydrometeorology, climatology, or closely related topic, and at least 12 years work experience in climate change modeling and assessments. Demonstrated knowledge in climate risk and vulnerability assessments and adaptation assessments is strongly preferred.

25. **Procurement Expert.** (international, 1 person-months): (i) Undertake project procurement risk assessment and prepare Project Procurement Risk Assessment and Management Plan (P-RAMP), including procurement capacity assessment of the EA; (ii) based on P-RAMP, prepare the capacity building program to strengthen EA's capacity in undertaking procurement and address other risks identified; (iii) prepare draft procurement plan; (iv) prepare master bidding documents for different types of contracts under the project, including a request for proposals for selection of implementation consultant; and (v) conduct market assessment for any special procurement arrangement and propose remedy for any limitations.

26. **Wastewater Engineer** (Deputy Team Leader) (national, 8 person-months): The Wastewater Engineer with international Wastewater Engineer will carry out the following tasks: (i) coordinate with national experts to fulfill their tasks; (ii) coordinate with related government agencies; (iii) work with the Team Leader to prepare and finalize PPTA report, feasibility study report, due diligence study, detailed design and project management support bid documents; (iv) work with the team leader to prepare bid document and conduct consultant selection activities for detailed design and project management support; (v) work with other consultants to assist the team leader in institutional and operational capacity assessment; and (vi) manage the consultant team in the absence of the team leader.

27. Wastewater Engineer (Deputy Team Leader) should have the relevant engineering degree (MSc or higher preferred) with a minimum of 15 years work experience and good command of written and spoken English.

28. **Hydrologist** (national, 2 person-months): The Hydrologist will work on hydrology-related parts of PPTA report, feasibility study, and other due diligence study to ensure compliance and approval of the feasibility study by the relevant national government agencies. Working in close collaboration with the Deputy Team Leader, the Hydrologist will have primary responsibility for interpreting scenarios in terms of changes in hydrology within the project area, emphasizing changes in flood risk and alterations in the availability of water resources. Core activities include contribution to the development of the overall methodological framework, with respect to tasks and activities involving hydrology, hydraulics, flood hydrology, hydrologic modeling and/or water resources assessment. Key deliverables would be contributions to the feasibility study report, due diligence study, detailed design and PPTA report.

29. The Hydrologist should have a degree in Civil Engineering and with at least 10 years experience in the relevant field and experience in designing of hydraulic structures and sediment studies regarding large scale water resources or works of similar nature.

30. **Finance and Economics Specialist** (national, 6 person-months): The Financial and Economics Specialist will work together with the international Project Finance and Economy Specialist specialist to: (i) review the financial performance of water supply and sanitation operators in project areas; (ii) collect socioeconomic data; (iii) conduct financial analysis, including tariff analysis; and (iv) undertake financial modelling, suggest innovative revenue or government support financing mechanisms, financial covenants. The Specialist will also provide support in survey, data collection, and in the preparation of economic analysis. The economic analysis should be based on the “ADB Economic Analysis for Investment Project Guidelines” and covers the 10 key areas of the economic analysis.

31. The Finance and Economics Specialist should have at least 10 years relevant experience in developing countries preferably ADB-funded. Specialist should be a Certified Public Accountant (CPA), or Chartered Accountant (CA Relevant experience in Central Asia is highly desirable.

32. **Environment Specialist** (national, 4 person-months): The Environment Specialist will work with the international environment specialist to: (i) draft rapid environmental assessment checklist to determine environment category; (ii) conduct environmental survey and testing required for environmental assessment; (iii) assist PMO in conducting public consultation; (iv) provide inputs to preparation of the EIA in accordance with SPS 2009; and (v) work and consult with SAEPP, local environmental and Issyk-kul Biosphere management authorities to get their comments during the EIA process and assist PMO in getting the national approval to the EIA report.

33. The Environment Specialist will have a degree in environmental sciences, environmental engineering, biology or ecology (MSc degree or higher preferred) with at least 10 years work experience in environmental management. English proficiency is required.

34. **Social Safeguards Specialist** (national, 4 person-months): The Social Safeguards Specialist will work with the international Social Development Specialist to: (i) prepare and finalize the resettlement plan, resettlement frameworks, involuntary resettlement impact categorization; (ii) conduct stakeholders consultation and analysis; and (iii) provide inputs on safeguard component on all project documents.

35. The Social Safeguards Specialist will have a degree in social science, anthropology, or human ecology (MSc degree or higher preferred) with at least 10 years work experience in involuntary resettlement issues, indigenous peoples, and poverty reduction. Relevant experience in Central Asia is highly desirable.

36. **Social Development and Gender Specialist** (national, 4 person-months): With guidance provided by the International Social Safeguard and Gender Specialist, the National Gender and Social Development Specialist will (i) conduct a poverty, social, and gender analysis of the project areas, using both primary and secondary data gathering (e.g., rapid surveys, key informant interviews, focus group discussions, analysis of data/information from local government and other agencies, desk reviews of relevant publications and reports, etc.) and assess possible impact of the project; (ii) prepare a poverty, social and gender analysis report either as a chapter in the PPTA main report or a separate report about 20-30 pages in length; (iii) draft the initial summary poverty reduction and social strategy and GAP; and (iv) in consultation with the social safeguards and resettlement specialist, prepare the consultation and communication plan and/or stakeholders participation plan.

37. The Social Development and Gender Specialist will have a master's degree in a relevant social science course, and at least 10 years of combined experience in community organizing, social research, and project planning, monitoring, and management, inclusive of at least 5 years of experience in gender mainstreaming in projects, programs, and research.

E. Implementation Period

38. The TA will be implemented from August 2016 until March 2018.

Table A3.4: Technical Assistance Processing and Implementation Schedule

| Major Milestones | Expected Completion Date |
|-------------------------|---------------------------------|
| Approval | September 2016 |
| Inception | November 2016 |
| Draft Final Report | June 2017 |
| Completion | March 2018 |

Source: ADB staff estimates.