

ASIAN DEVELOPMENT BANK

TAR:UZB 33548

**TECHNICAL ASSISTANCE
(Financed from the Japan Special Fund)**

TO THE

REPUBLIC OF UZBEKISTAN

FOR PREPARING THE

URBAN SOCIAL INFRASTRUCTURE DEVELOPMENT PROJECT

May 2000

CURRENCY EQUIVALENTS

(as of 1 May 2000)

Currency Unit	–	Sum (SUM)
SUM1.00	=	\$0.007
\$1.00	=	SUM 143.0

The foreign exchange rate of the sum is determined by the Central Bank of Uzbekistan.

ABBREVIATIONS

ADB	–	Asian Development Bank
DCEEA	–	Department for Coordination of External Economic Activities
EIA	–	Environmental impact assessment
EIRR	–	economic internal rate of return
FIRR	–	financial internal rate of return
IEE	–	initial environmental examination
MCS	–	Ministry of Communal Services
MOF	–	Ministry of Finance
O&M	–	operation and maintenance
TA	–	technical assistance

NOTES

- (i) The fiscal year (FY) of the Government ends on 31 December.
- (ii) In this report, “\$” refers to US dollars.

I. INTRODUCTION

1. During the 1999 Country Programming Mission, the Government of the Republic of Uzbekistan (the Government) requested the Asian Development Bank (ADB) to provide technical assistance (TA) in the country's urban sector. The TA Fact-Finding Mission visited Uzbekistan during 24 February–3 March 2000; held discussions with officials from the Ministry of Communal Services (MCS), Department for Coordination of External Economic Activities (DCEEA) of the Cabinet of Ministers, Ministry of Finance (MOF), Ministry of Macroeconomics and Statistics, and the city governments of Fergana and Tashkent. An understanding was reached with the Uzbekistan Government on the objectives, scope, cost estimates, financing plan, and implementation arrangements for the TA.¹ The TA framework is attached as Appendix 1.

II. BACKGROUND AND RATIONALE

2. During the Soviet era the considerable investment in urban infrastructure was based on the standard methodologies and norms adopted at that time. Since independence in 1991, investment has slowed and social infrastructure services have deteriorated. The operation and maintenance (O&M) of aging assets have become increasingly difficult, performance efficiency has dropped, and the cost of service delivery has risen. As a result the urban population is receiving service of a lower standard and faces the prospect of significantly increased charges and tariffs if the sector is to become financially self-sufficient.

3. Reforms envisaged by the Government include the decentralization of power and responsibility for urban social infrastructure and its assets to the local authorities. The Government recognizes the need to set tariffs for utilities and services at a level that will ensure the services can be sustained. Revenues will cover not only the cost of O&M but also that of depreciating assets and the expansion or improvement of the services. To provide users with greater control over the standard and quality of services provided, a strategy will be developed to ensure the participation of all sectors of the community and all stakeholders.

4. The Government's main public expenditure priorities include maintaining living standards and strengthening social protection. The Uzbekistan model specifically acknowledges the important role of human development in the general development of society. Guided by this philosophy, the Government is undertaking reform programs across all social sectors—human resource development, health care provision, education—and putting in place comprehensive social welfare programs. Despite an overall contraction in budgetary revenues since the breakup of the former Soviet Union, the Government has protected health and education expenditures in relative terms, consistent with its social objective of investment in human resources.

5. The incidence of poverty² is rising. Statistically, most of the poor live in rural areas. However, it is the urban poor who suffer more because they have little or no opportunity for self-help in alleviating their situation. They have no land and must rely totally on the social benevolence of the Government. Rising charges and tariffs, while necessary for sustainability, exacerbate the situation of the poor. Restricted dietary habits resulting from low incomes,

¹ The TA first appeared in *ADB Business Opportunities* in January 2000.

² Expressed as the proportion of the population whose earnings are no greater than one and a half times the national declared minimum wage.

together with substandard water quality and inadequate heating, often lead to illnesses and the need for medical assistance. These issues need to be addressed by minimizing tariff increases while seeking to improve the standards of social infrastructure services.

6. With continued urban growth, sustainable development of municipal services is constrained by (i) institutional and regulatory weakness, (ii) inadequate financial management in some cities, (iii) inefficient operation and poor maintenance of facilities, (iv) affordability of services and lack of capacity to pay for them, and (v) weak human resource capacity. The Government is aware of the urgent need to address these issues and to improve the provision and management of urban infrastructure services.

7. Assistance from funding agencies for municipal services is limited. The World Bank is currently financing a water supply sector project to expand the potable water supply in Uzbekistan's western provinces. An ongoing solid waste management project in Tashkent is jointly funded by the World Bank and the European Bank for Reconstruction and Development. The project aims to build capacity and improve the provision of solid waste management services. The World Bank is exploring opportunities for assistance in the water supply sector in the provinces of Buhkara and Samarkand.

8. A sector review of social infrastructure provision and the related institutional development requirements is now needed to provide the basis for a strategy for medium-term priority investments. Urban infrastructure projects would be identified. Modern management and technologies are to be utilized and associated capacity building provided within the municipal services sector.

9. The TA is in line with ADB's country operational strategy for Uzbekistan, which is to (i) manage the transition to a market economy and reduce poverty, (ii) develop market-based institutions (institutional development, finance, education, urban development, and social infrastructure), and (iii) unlock the potential for future growth.

III. THE TECHNICAL ASSISTANCE

A. Objectives

10. The main objectives of the TA are to (i) investigate and analyze the urban social infrastructure sector involving all provincial capital cities, (ii) prepare a medium-term urban social infrastructure investment program, and (iii) identify and prepare a suitable project for upgrading and expanding the coverage of priority municipal services in one or more cities for possible ADB funding. The TA will help the Government address implementation issues related to its institutional reform program, and prepare a program for capacity building and priority project development within the urban social infrastructure sector. The TA will also highlight areas where (i) service levels can be improved, (ii) delivery efficiency significantly improved, and (iii) better cost recovery achieved. The aim is to strengthen the institutional and regulatory environment for decentralization, and the provision and upgrading of reliable and financially sustainable urban infrastructure services that would promote economic development, reduce urban poverty, and attract private sector participation.

B. Scope

11. The TA comprises three parts:

12. **Part A: National Urban Social Infrastructure Sector Profile.** A review of the sector and subsectors³ will be carried out to determine the policy framework for service provision. This review will identify overlaps, inconsistencies, or other such impediments to efficient service delivery. It will consider the effects and implications for proposed institutional and financial changes by the Government.

13. The review will consider internationally accepted, nationally adopted, and actual standards and levels of service provision in the oblast (provincial) capital cities, and will define both deficiencies and potential consequences of variations between these standards. The potential for private sector participation, both international and local, in service delivery will be reviewed and featured in the recommendations for any changes to the institutional structure and operational management. The standards of service provision will reflect the need to attract inward investment, especially where this might be in competition with neighboring countries.

14. Particular attention will be paid to resource availability, asset condition and life, unit cost of production or service, the degree of loss, and the efficiency of production and delivery of each service. The study will address the issue of integrated service provision, the management techniques employed, and the interface between national, regional, and city levels. Necessary reforms will be identified and justified.

15. **Part B: Medium-Term Urban Social Infrastructure Investment Program.** Based on the findings in part A, a medium-term investment program to upgrade the level of services, strengthen the efficiency of service delivery, and improve cost recovery for the provision of municipal infrastructure services will be prepared. The priority investment needs and priority investment areas will be identified. Screening criteria will be developed to rank 5 to 10 priority projects. The screening criteria will include (i) fulfillment of ADB guidelines for project selection, (ii) impact on poverty reduction, (iii) technical merit and environmental impact, (iv) social benefits, (v) cost estimates, (vi) availability of counterpart funds, and (vii) cost-benefit attributable to the ADB project. The programs for investment by other international lending institutions or bilateral aid programs will be identified.

16. The budgetary implications, for the national and local levels, of meeting the costs of implementation, O&M, and future extensions will be critically reviewed, taking into consideration existing and future debt load. The population's willingness to pay, the affordability of the proposed medium-term measures, and the need to introduce improvements in standards will be assessed.

17. **Part C: Identification of Project and Subprojects, Feasibility Analysis, and Capacity Building.** Based on considerations developed in parts A and B, and on an agreement between the Government and ADB, a project proposal will be prepared for possible ADB financing. Project preparation will cover (i) technical, economic, and financial feasibility; (ii) social analysis and community participation; and (iii) environmental considerations.

18. The analysis will be done in accordance with ADB's *Environmental Guidelines for Selected Infrastructure Projects, Environmental Assessment Requirements and Environmental Review Procedures, Guidelines for Incorporation of Social Dimensions in Bank Operations,*

³ The following subsectors will be covered: (i) water supply; (ii) sanitation including sewerage, wastewater treatment, and solid waste collection and disposal; (iii) district heating and hot water; (iv) housing; and (v) gas and electricity.

Handbook for Incorporation of Social Dimensions in Projects, Framework for the Economic and Financial Appraisal of Urban Development Sector Projects, Guidelines for the Economic Analysis of Projects, and Guidelines for the Economic Analysis of Water Supply Projects.

19. A capacity-building program will be outlined, including training for staff involved with implementing and managing the Project. The training will strengthen their technical and financial capacity to implement, operate, and maintain the infrastructure facilities efficiently.

20. For each subproject identified, a detailed program will be prepared concerning feasibility, design implementation, maximizing the opportunities for local involvement in management, and technical design development. Based on the work undertaken, justification for undertaking this intervention will be developed. In addition to the number of poor beneficiaries as classified by the Government, the justification will include data on quality-of-life indicators and the extent to which the Project will address the constraints for those likely to fall into the poverty class in the medium term.

C. Cost Estimates and Financing Plan

21. The total cost of the TA is estimated to be \$1,030,000 equivalent, of which \$600,000 is the foreign exchange cost and \$430,000 equivalent the local currency cost. The Government has requested ADB to finance \$720,000 equivalent, covering the entire foreign exchange cost and \$120,000 equivalent of the local currency cost. The TA will be financed by ADB on a grant basis from the Japan Special Fund, funded by the Government of Japan. The Government of Uzbekistan will provide the balance of the local currency cost, equivalent to \$310,000 for counterpart staff, office space, furniture, administrative support and interpretation services, logistics, and local transportation. The Government has been advised that approval of the TA does not commit ADB to finance any ensuing project. Details of the cost estimates and financing plan are in Appendix 2.

D. Implementation Arrangements

22. MCS, the Executing Agency for the TA, will undertake the required liaison work with the central and municipal government authorities concerned. MCS will appoint a senior official as study coordinator to direct the study in cooperation with ADB. The Government will form a steering committee to direct and coordinate the study. The committee will be chaired jointly by MCS and DCEEA, and will include representatives of Ministry of Macroeconomics and Statistics, MOF, and officials from city administrations as appropriate.

23. The TA will require about 50 person-months of consulting services, 18 international and 32 domestic. The international consultants will have expertise in municipal engineering, water supply and district heating; economic and financial analyses; institutional development and urban planning; social development and community participation; poverty reduction and gender issues; and environmental impact assessment. The domestic consulting services will cover municipal and water engineering, mechanical and district heating engineering, institutional development and urban planning, economic and financial analyses, social development, and community participation. The consultants will be engaged in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB for the engagement of domestic consultants. The outline terms of reference for the consultants are in Appendix 3. ADB's simplified technical proposal approach will be used to select and engage the consultants. In addition to staff participation, the Government will provide a suitably

furnished office with utilities and telecommunication access; interpretation support; vehicular transport for consultants; material, maps, data, and related documents required by the TA; and field travel of one staff member to accompany the consultants. The advanced payment facility may be used for advance disbursement of funds for the socioeconomic surveys and workshops, and for administration and technical support.

24. The TA will be carried out over seven months commencing in September 2000 with expected completion by March 2001. The consultants will submit an inception report one month from commencement of the study. An interim report containing the urban sector review and a medium-term investment program will be submitted within three months from commencement of the study. A draft final report with a description of the investment Project, the proposed capacity-building program, and other findings and recommendations will be submitted within six months from commencement of the study. Three tripartite meetings will be held: the first meeting, upon completion of part A, to discuss and agree on the subsectors and geographic coverage for parts B and C; the second, upon completion of part B, to discuss and agree on the Project to prepare under part C; and the final meeting, to discuss the draft final report. The final report incorporating the comments will be completed about two weeks after the last tripartite meeting. The original reports will be in English. A Russian translation of the reports will be prepared.

IV. THE PRESIDENT'S DECISION

25. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance, on a grant basis, to the Government of the Republic of Uzbekistan in an amount not exceeding the equivalent of \$720,000, for the purpose of preparing the Urban Social Infrastructure Development Project, and hereby reports such action to the Board.

TECHNICAL ASSISTANCE FRAMEWORK

Design Summary	Targets	Project Monitoring Mechanisms	Risks and Assumptions
Sector/Area Goals <ul style="list-style-type: none"> Promote economic development and reduce poverty in the urban areas through the provision and upgrading of reliable and financially sustainable essential municipal services 	<ul style="list-style-type: none"> Improve standards of service and efficiency of the provision of municipal services Strengthen institutional and regulatory environment for managing urban infrastructure services Reduce subsidies 	<ul style="list-style-type: none"> Municipal statistics and socioeconomic surveys 	<ul style="list-style-type: none"> Ability of local governments to generate sufficient revenue to repay the loan Willingness to pay and affordability of the services
Purpose/Objectives <ul style="list-style-type: none"> Investigate and analyze the urban social infrastructure sector in all provincial cities to assist the Government in addressing implementation issues related to its institutional reform and in preparing a program for capacity building and priority project development within the urban social infrastructure sector Prepare a medium-term urban social infrastructure investment program to upgrade the level of services, strengthen the efficiency of service delivery, and improve cost recovery for the provision of municipal infrastructure services 	<ul style="list-style-type: none"> A priority project development and capacity building program that is agreed to by the Government A program that is supported by the Government to reduce per capita consumption of heat energy, losses of hot and cold water, and consumption of cold water A medium-term investment program that is agreed to by the Government to improve financial management and cost recovery, and to improve service delivery to households at national standards of quality 	<ul style="list-style-type: none"> The Executing Agency and steering committee Municipal statistics and socioeconomic surveys Sustainability and accountancy auditing Metering and demand management techniques 	<ul style="list-style-type: none"> Timely provision of and access to data and information Support from local governments and public sector agencies Ability of local government to generate sufficient income to repay loans Effective institutional reorganization not in place Timely project implementation with adequate counterpart support

Design Summary	Targets	Project Monitoring Mechanisms	Risks at Assumptions
<ul style="list-style-type: none"> Identify Project for possible financing by Asian Development Bank (ADB) and provide capacity building to enhance the provision of service delivery as well as attract private sector investment 	<ul style="list-style-type: none"> Individual subprojects in one subsector in one or more cities or a group of subprojects in various subsectors to form an integrated approach that meets ADB requirements and is supported by the Government 		<ul style="list-style-type: none"> Capacity to impose sanctions for nonpayment of charges for services provided
Outputs <ul style="list-style-type: none"> National Urban Sector Profile Medium-Term Urban Social Infrastructure Investment Program Project and Subproject Identification, Initial Feasibility Analysis, and Capacity Building 	<ul style="list-style-type: none"> A profile of the urban subsectors to include municipal services, land policies and tenure, environment, and local governance A medium-term investment program based on priority investment needs and priority investment areas. A priority ranking of 5 to 10 urban social infrastructure projects that is agreed to by the Government A project or group of projects for possible ADB financing. The project(s), to be supported by the Government, should include policy components for strengthening the capability and capacity of the local government and physical components for the provision of municipal services 	<ul style="list-style-type: none"> Technical assistance (TA) progress reports TA review missions 	<ul style="list-style-type: none"> Commitment by all levels of government Long-term commitment by the municipal governments Existing data are sufficient Ability of local government to generate sufficient income to repay loans

Design Summary	Targets	Project Monitoring Mechanisms	Risks and Assumptions
<p>Activities</p> <ul style="list-style-type: none"> Recruit a team of international and domestic consultants to implement the TA Coordinate the activities of the TA with the Executing Agency, local governments, and relevant agencies/institutions Organize tripartite meetings between the Government, TA consultants, and ADB for smooth TA implementation 	<ul style="list-style-type: none"> A grant of \$720,000 from the Japan Special Fund (JSF) and the Republic of Uzbekistan Government's contribution of \$310,000 equivalent in local currency 50 person-months (18 international and 32 domestic) of consulting services 	<ul style="list-style-type: none"> TA review missions and technical completion reports Progress reports by the consultants 	<ul style="list-style-type: none"> Full ownership of the TA by the Government

COST ESTIMATES AND FINANCING PLAN

(\$'000)

Item	Foreign Exchange	Local Currency	Total Cost
A. Asian Development Bank Financing			
1. Consultants			
a. Remuneration and Per Diem			
i. International	438.0	0.0	438.0
ii. Domestic	0.0	74.0	74.0
b. International and Local Travel ^a	42.0	15.0	57.0
c. Reports ^b /Communications	6.0	8.0	14.0
2. Equipment ^c	16.0	0.0	16.0
3. Socioeconomic Surveys	0.0	5.0	5.0
4. Seminars and Workshops	0.0	4.0	4.0
5. Representative at Contract Negotiations ^d	10.0	0.0	10.0
6. Administration and Technical Support	0.0	4.0	4.0
7. Contingencies	88.0	10.0	98.0
Subtotal (A)	600.0	120.0	720.0
B. Government Financing			
1. Counterpart Staff	0.0	65.0	65.0
2. Office Space, Administration and Support Costs	0.0	85.0	85.0
3. Seminars and Workshops	0.0	30.0	30.0
4. Local Transportation	0.0	25.0	25.0
5. Socioeconomic Surveys	0.0	20.0	20.0
6. Translation and Interpretation	0.0	35.0	35.0
7. Contingencies	0.0	50.0	50.0
Subtotal (B)	0.0	310.0	310.0
Total	600.0	430.0	1,030.0

^a Local travel includes air transport and land transport between cities, and may include rental of a vehicle for intercity transport.

^b Includes translation.

^c Includes two desktop computers, one laptop computer, one laserjet printer, one portable printer, one photocopier, and software and accessories.

^d Includes cost of travel and per diem for Government observers for contract negotiations at ADB headquarters.

Source: Staff estimates.

OUTLINE TERMS OF REFERENCE

1. The work under the technical assistance (TA) comprises three components: (i) preparing a national urban social infrastructure sector profile; (ii) developing a medium-term urban social infrastructure investment program; and (iii) identifying a suitable project for upgrading and expanding the coverage of priority municipal services, including a program to build the capacity of local governments to improve urban management and provide municipal services.

A. National Urban Social Infrastructure Sector Profile (1.5 months)

2. The consultants will carry out the following:

- (i) Review the current policy framework guiding the provision of basic social infrastructure and services for major urban centers (provincial capitals).
- (ii) Review at national and local government levels the institutional framework responsible for the provision of basic urban social infrastructure. Identify institutional overlaps, inconsistencies, or other such impediments to efficient delivery of services.
- (iii) Review the Government's decrees and resolutions relating to the provision of urban services, and assess the level and social acceptability of existing and proposed standards of service. Identify deficiencies in such services according to internationally accepted norms.
- (iv) Review the Government's intentions and program for changes to the institutional arrangements (Government Resolution 461/1998 in particular) relating to the provision of urban social infrastructure and the role of the Ministry of Communal Services (MCS) at both national and local levels. Recommend appropriate programs for implementation.
- (v) Review the likely impact that recently introduced measures for the provision of, and cost recovery in, health, education, welfare, and utility infrastructure may have on the urban poor, and the ability of the population to respond to cost increases.
- (vi) Review the existing arrangements in the housing sector and land tenure system as they affect the urban population.
- (vii) Investigate the target and actual standards and levels of service provision in the provincial capital cities, paying particular attention to resource availability, unit cost of production or service, degree of wastage, efficiency of producing and delivering the service, and gaps between the standards.
- (viii) Investigate the existing demand for the provision of utilities and the priorities placed on each by the public. Determine the existing constraints to urban infrastructure and the potential for involvement by the private sector.

- (ix) Identify reforms necessary to improve the efficiency, accountability, and level of service provision. In addition, investigate the means by which the public may participate in various aspects of service provision (metering, demand management, waste separation, etc.).

B. Medium-Term Urban Social Infrastructure Investment Program (1.5 months)

3. The consultants will undertake the following:

- (i) Develop parameters for identifying priority sector and subsector investment needs and priority investment areas for the preparation of a medium-term urban social infrastructure investment program that meets the objectives of the Government.
- (ii) Review external assistance to the sector and subsectors, and identify investment intentions of other international lending institutions or bilateral programs for technical or economic assistance.
- (iii) Propose and agree with the Government on the criteria for the screening and ranking of possible projects. The criteria will include (i) fulfillment of Asian Development Bank (ADB) guidelines for project selection, (ii) impact on poverty reduction, (iii) technical merit and environmental impact, (iv) social benefits, (v) cost estimates, (vi) availability of counterpart funds, and (vii) cost-benefit attributable to the project.
- (iv) Based on the criteria established above, identify and rank 5 to 10 priority urban social infrastructure projects proposed by city administrations within the republic that fulfill the objectives of the Government and ADB. The identified projects should reflect the needs of the community through their participation in the process.
- (v) Discuss the priority ranking developed with the Government, duly noting other parallel programs for investment.
- (vi) Determine the budgetary implications at the national and local levels of meeting the costs of implementation, operation, maintenance, and future extensions of the projects; determine the existing and committed future debt load to be carried at both levels of government.
- (vii) Determine the population's willingness to pay and the affordability of the measures being considered, and of any improvements in standards that may be introduced.

C. Identification of Project and Subprojects, Feasibility Analysis, and Capacity Building (4.0 months)

4. Using the results of the work in part B, the consultants will prepare the following:

- (i) Rationale/project framework. Prepare a project proposal comprising either individual urban social infrastructure subprojects in one subsector in one or

more cities, or a group of subprojects in various subsectors to form an integrated approach. Justify the choice of project location on such grounds as demand trends, supply constraints, growth potential, and efficiency savings. Assess the capacity of the executing agency/agencies for managing and delivering urban services, especially operation and maintenance, in a sustainable manner. Prepare a project framework, including policy components to strengthen the institutional arrangements within the city administration and other relevant organizations; and a physical component designed to leverage the policy reform measures identified under part A.

- (ii) Objectives. Describe the overall project objectives with due consideration to poverty reduction, hardship conditions prevailing, cost-benefit improvements available, and leverage for further investment.
- (iii) Scope. Prepare details of the subprojects and the selection criteria in accordance with the rationale of the project. Revisit the initial prioritization process, if found justifiable, for further or revised information or circumstances, and discuss amendments with the Government. Develop a further set of targets in terms of the likely overall numbers of beneficiaries, the proportion of those falling below the poverty threshold, and the cost recovery achievable. The TA will formulate a sector project for external financing at an indicative total estimated cost of about \$40 million.
- (iv) Community participation and cost sharing. Both the stakeholders and beneficiaries will participate in the project design through consultations and socioeconomic surveys to be undertaken for all subprojects. Project formulation will pay careful attention to the financing capacity of the central and local governments, including analysis of cost recovery, community ownership and participation, financing options, and fiscal impact and sustainability (technical, financial, and institutional) for all subprojects.
- (v) Technical justification for the project and subprojects. Explain the need for the proposed technology and compare the merits of the proposed technical options. Describe and review the subprojects, considering the following:
 - (a) selection criteria including technical, economic, and financial feasibility; social analysis and community participation; and environmental feasibility with reference to national and ADB requirements;
 - (b) adequacy of existing and potential potable water sources in the subprojects for meeting the water demand for the next 10-15 years, taking into account any potential reductions resulting from demand management initiatives;
 - (c) the findings of studies on alternative provisions for building heating and hot water supplies; determine the potential benefits accruing from changes in technology; and assess the findings of a study on potable water demand, use, and wastage in Tashkent;

- (d) existing sanitation arrangements (sewerage, wastewater treatment, solid waste collection and disposal) and assess inherent risks;
 - (e) present consumption¹ figures for potable water, heating, and hot water supplies (where applicable) by referring to water and heat balances from data surveys;
 - (f) design criteria for each of the infrastructure subsectors as applicable: potable water supply, heat and hot water supply, sewage collection systems and waste water treatment works, and solid waste collection and disposal methods; and
 - (g) The technical feasibility of the subprojects reflecting current policy and any recommended new approaches.
- (vi) Cost estimates. Prepare cost estimates—foreign exchange and local currency cost components—for each subproject, including
- (a) total cost and estimated per capita investment cost per subproject and per subsector; and
 - (b) separate estimates for each subsector of urban infrastructure development, identified under the following headings: land, civil works, equipment and materials, incremental operation and maintenance, incremental administration, and consulting services (to include possible involvement by nongovernment organizations [NGOs], and capacity building and training). Cost estimates for consulting services will include estimated costs for detailed design, preparation of tender documents, construction supervision, and other costs associated with capacity building and training. The cost estimates will include physical and price contingencies. The local currency cost will include estimated duties and taxes. Interest during construction should be calculated separately.
- (vii) Financing plan. The consultants will specify the foreign exchange and local currency costs to be financed by ADB, the central Government, the local governments, and other agencies, if any. They will describe the maturity, grace periods, and relending arrangements, including possible subsidies.
- (viii) Implementing arrangements. The following must be described:
- (a) the organizational arrangements envisaged to implement the project components; details regarding agencies and persons responsible for the preparation of socioeconomic surveys, design, tendering and construction, supervision, and capacity building; participatory approaches, including the roles of NGOs and beneficial groups;

¹ Consumption is defined as daily per capita use, including unaccounted-for supplies, but excluding industrial supplies.

- (b) the executing agency (EA) and implementing agencies (IAs), as well as a project steering committee, a project monitoring unit, and project implementation unit(s);
 - (c) an implementation schedule for each subproject identified;
 - (d) features related to project implementation: procurement (including provision for international competitive bidding, local competitive bidding, and international shopping); consulting services (scope, terms of reference, person-months, and costs); disbursement policies; reports, accounts, and audit (including project completion report); possible retroactive financing, including its justification; monitoring and evaluation; and relending policies.
- (ix) Executing agency/implementing agencies. Review the past records of the EA and IAs in project implementation and their institutional capacity, including accounting and auditing capabilities, to implement a project. Prepare a detailed financial evaluation of local governments.
- (x) Environmental and social measures. The following will be addressed:
 - (a) Environment. Prepare an initial environmental examination (IEE) or environmental impact assessment (EIA), if warranted, for each subproject, and a summary IEE or a summary EIA for the whole project, in accordance with ADB's *Environmental Guidelines for Selected Infrastructure Development Projects* and *Environmental Assessment Requirements and Environmental Review Procedures*. The assessments will address the impacts of the project on urban social infrastructure services (water supply, solid waste collection and disposal, sewerage collection and treatment, drainage, and the provision of hot water and heating) during project implementation and construction, and during subsequent operation; and propose measures to mitigate the adverse impacts identified. In addition, an IEE will be prepared for the "do-nothing" case. If necessary, conduct EIA studies and assist the EA in securing environmental clearance certificates for each subproject as required by the government.
 - (b) Social analysis. Assess the socioeconomic benefits of the subprojects and future contributions to the subproject areas in terms of social well-being and other benefits to the people of various income levels. Identify and consult the potential beneficiaries and groups that may be directly affected, either positively or negatively, by the subprojects. Design and undertake a socioeconomic survey in representative areas to assess the impact of the project on poverty, the social priorities, affordability of services, and people's willingness to pay. Identify the number of direct and indirect beneficiaries and their income groupings. Describe both women and men with respect to the socioeconomic features of the area, a summary of gender-disaggregated health statistics, and the roles of both in the current status of municipal service provision, covering both operation and maintenance (O&M) and institutional development. The

consultants will follow ADB's *Guidelines for Incorporation of Social Dimensions* and *Handbook for Incorporation of Social Dimensions in Projects*. Prepare socioeconomic profiles of these groups, including an assessment of their requirements and preferences in social infrastructure services, social customs and practices in the utilization of these services, and their ability and willingness to pay for the services. The socioeconomic profiles will be based on gender-disaggregated data. Particular attention should be given to mitigating any adverse impacts of the subprojects and the overall project on specific communities or groups, particularly the poor. Develop and recommend a mechanism and procedures for public consultation and participation in project planning, O&M, and management, particularly in relation to levels of service performance, tariffs, and environmental protection.

- (xi) Project justification. The consultants will undertake these tasks:
- (a) Establish the financial and economic objective and targets for each proposed subproject and the overall project, using ADB's *Framework for the Economic and Financial Appraisal of Projects*, and *Guidelines for the Economic Analysis of Water Supply Projects*.
 - (b) Review present and projected charges and tariffs relating to social infrastructure services and the mechanisms for their collection. Review the billings recovery rate and the effects on billings of privileged classes. Identify cross subsidies and the financial performance against the annual budgets for the provision of social infrastructure services.
 - (c) Estimate the financial and economic cost of each service.
 - (d) Prepare financial plans for the subprojects and the overall project, including obtaining a commitment for local counterpart funding.
 - (e) Review and recommend possible improvements to the institutional strength and capacity of local government departments/organizations for effective planning, development, O&M, and financial management of the social urban infrastructure.
 - (f) Estimate the incremental revenue and O&M costs for each subproject over a 10-year period after commissioning of the project facilities.
 - (g) Review the past and present financial performance of each department responsible for the delivery of a service or services, including financial indicators.
 - (h) Compute, for past and projected financial statements, relevant financial indicators, including a self-financing ratio, debt-service coverage ratio, and operating ratio.
 - (i) On the basis of the capital investment costs, incremental revenue, and O&M costs, compute for each subproject and the overall project financial

internal rates of return (FIRRs) and economic internal rates of return (EIRRs). If necessary, assume increases in consumer charges and tariffs or other measures to achieve reasonable FIRRs and EIRRs.

- (xii) Project performance monitoring system (PPMS). Prepare an effective PPMS that includes monitoring of the project impact on poverty reduction.
- (xiii) Private sector participation. Identify opportunities and the potential for private sector participation and public-private partnerships in the provision, operation, and management of physical communal urban infrastructure.
- (xiv) Capacity building/training. The consultant will
 - (a) review and assess the existing institutional capacity of the central and local government departments, committees, and agencies responsible for the delivery of social urban infrastructure;
 - (b) review existing capacity building and training programs of the relevant ministries and local government organizations and agencies; and
 - (c) based on the assessments, design and prepare a technical assistance program. The technical assistance should include training of the managers and staff of the departments responsible for service delivery to strengthen their capacity to efficiently implement, operate, and maintain the facilities and techniques to be introduced under the proposed project and to ensure sustainability of the project benefits. This training should cover financial management; O&M techniques; development of planning, engineering, and financial capabilities; and computer applications for billing and credit control.