

ASIAN DEVELOPMENT BANK

TAR: MON 31243

TECHNICAL ASSISTANCE
(Financed from the Japan Special Fund)
TO
MONGOLIA
FOR PREPARING THE
INTEGRATED DEVELOPMENT OF BASIC URBAN SERVICES
IN SECONDARY TOWNS

July 2001

CURRENCY EQUIVALENTS

(as of 20 March 2001)

Currency Unit	–	Togrog (MNT)
MNT1.00	=	\$0.0009523
\$1.00	=	MNT1,050

An exchange rate of \$1.00 to MNT1,050 was used in this report. This was the rate prevailing when the report was prepared.

ABBREVIATIONS

ADB	-	Asian Development Bank
DPCCUD	-	Department for Policy and Coordination of Construction and Urban Development
FSU	-	former Soviet Union
GIACUDPU	-	Government Implementing Agency for Construction, Urban Development and Public Utilities
MOFE	-	Ministry of Finance and Economy
MOI	-	Ministry of Infrastructure
O&M	-	operation and maintenance
PTBUS	-	Provincial Towns Basic Urban Services
PUSO	-	public urban services organisation
TA	-	technical assistance
TMU	-	TA management unit

NOTES

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

I. INTRODUCTION

1. A request for Asian Development Bank (ADB) technical assistance (TA)¹ to prepare an integrated urban infrastructure development project in secondary towns in the eastern and central regions was made by the Government of Mongolia during the 2000 Country Programming Mission. A Fact-Finding Mission visited Mongolia in March 2001 to formulate the proposed project preparatory TA for the Integrated Development of Basic Urban Services in Secondary Towns. The Mission held discussions with officials of the central Government, provinces, secondary towns, and public utility service organizations, and reached an understanding with the Government on the objectives, scope, cost, financing plan, and implementation arrangements for the TA. The preliminary project framework is in Appendix 1.

II. BACKGROUND AND RATIONALE

2. Mongolia's rapid urbanization in the late 20th century has created an urban population of 1.48 million people (59 percent of the total). The population of the country grew by 25 percent between 1989 and 2000, but the urban areas lost half of their natural increase to the capital, Ulaanbaatar, through migration. As the capital gained primacy, it attracted most foreign assistance, to the detriment of balanced development in the regions. The 1998 Living Standard Measurement Survey² found that 45 percent of the people in secondary towns were poor, compared with 34 percent in Ulaanbaatar and 33 percent in the countryside.

3. At the same time, urban settlements present a sharp contrast between their formal areas with fully networked utility and isolated *ger* (traditional circular tent) settlements. The formal areas have apartments with electricity, piped potable and hot water, sewerage, central heating, paved roads, and a full range of educational, health, social, and commercial facilities. Informal areas, on the other hand, with their traditional *ger* shelters or other informal wood or brick shelters in individually fenced plots, are usually supplied with electricity and water collection points in the neighborhood but are poorly served with community facilities and must provide their own pit latrines and coal- or wood-fired stoves for heating and cooking. Road access to and within *ger* areas is often difficult. Severe disparities in service provision exist between formal and informal *ger* settlements within a typical secondary town: 46 percent of the people in the formal settlements but only 13 percent of those in the informal settlements have access to water supply systems. Most of the people in the secondary towns (60-90 percent) live in *ger* areas. Waterborne diseases are prevalent, partly because of poor sanitation and hygiene among the nomadic Mongolian people.³ Children in the *ger* areas are twice as likely to have diarrhea and respiratory infections. Public bathhouses, the only washing facilities in *ger* areas, were closed down because they were too dilapidated to operate and costly to maintain. The dire poverty and livelihood prospects of the secondary towns strongly suggest that poverty reduction programs and measures should be targeted at these urban areas, and that balanced operations targeting the needs of the rural and urban poor are warranted.

4. Secondary towns, particularly capitals in each province, are expected to serve the agricultural hinterlands of their province. In the early 1980s, Mongolia began developing basic infrastructure services in secondary towns with the help of the former Soviet Union (FSU).

¹ The TA first appeared in *ADB Business Opportunities* on 23 March 2000.

² United Nations Development Programme, August 1999.

³ There are around 7.0 dysentery cases for every 10,000 people. Skin diseases, directly related to lack of water, were on the rise in the 1990s.

When the FSU collapsed, the program stopped and some towns in the eastern and central regions ended up with incompletely installed services. The secondary towns now support the consumption needs of town residents, but not their regions. The coverage of their hinterlands is shrinking—they now serve an area within a radius of less than 100 kilometers (km), compared with Ulaanbaatar's 500-km-radius service area. The secondary towns need to widen their service coverage of towns in the hinterlands so that these can function as sustainable regional service centers as well as seasonal shelters, and thus even out regional growth.

5. In the Ministry of Infrastructure (MOI), the Department for Policy and Coordination of Construction and Urban Development (DPCCUD) draws up the policy framework for urban development, housing, and public services. The Government Implementing Agency for Construction, Urban Development and Public Utilities (GIACUDPU), created by merging two agencies,⁴ implements urban service policies set by MOI. The reorganization has allowed the Government to implement urban policy, development, and physical construction consistently. To promote more balanced regional growth, the Government is attempting to channel foreign assistance to the provinces and to areas where infrastructure is most dilapidated or insufficient.

6. In the provinces, the governors and the mayors monitor and guide local development, while local public utility service organizations (PUSOs) manage water supply, sanitation, public bathhouses, and, in some cases, apartment housing, district heating, and solid waste disposal. Local government officials are technically competent, but are faced with difficulties moving forward to market-based economy and management due to limited management capacity and financial autonomy from their provincial governments. If the country is to achieve full integration into the market economy, these officials must get out of the traditional ways of thinking under a controlled economy and must be trained in financial management and updated urban planning under a market economy. Under the Provincial Towns Basic Urban Services (PTBUS) Project financed by ADB,⁵ the five PUSOs in the project towns were corporatized and are gradually building their management skills through an associated TA,⁶ but PUSOs elsewhere are still effectively part of the provincial governor's office, diminishing their efficiency in service delivery. To make PUSOs more sustainable and efficient, the Government is striving to introduce market-based management in other secondary towns.

7. The Government announced its Action Program for 2000–2004 in 2000. The key objectives are to (i) continue and deepen economic reform, (ii) pursue an export-oriented economic policy and speed up economic growth, (iii) develop human resources, (iv) improve living standards and reduce unemployment and poverty, and (v) develop the regions.⁷ A resolution approved by Parliament on 25 January 2001 spelled out details of the Action Program. The Government realizes that landlocked Mongolia must have access to neighboring countries and regions to join the global market economy and to integrate its domestic infrastructure network. Five economic regions will be established along the five vertical economic corridors (north-south axes) connecting FSU and the People's Republic

⁴ Resolution No. 13 of 6 September 2000 merged the Agency for Construction and Architecture and the Government Implementing Agency for Utility Services to form GIACUDPU.

⁵ Loan 1560-MON: *Provincial Towns Basic Urban Services Project*, for \$6.8 million equivalent, approved on 30 September 1997. The Government has made significant progress in improving the infrastructure of the five provincial towns under the project.

⁶ TA No. 2881-MON: *Capacity Building for the Provision of Urban Services in Provincial Towns*, for \$600,000, approved on 30 September 1997.

⁷ Among the regional development policy of the Action Program are to (i) improve access to water supply and sanitation services, and make service delivery more productive and efficient; (ii) introduce in other provinces the public service principles used in the first project towns; (iii) improve financial resource mobilization, in particular by expanding mechanisms for cost recovery and cost sharing, including tariff adjustments; and (iv) improve infrastructure operation and maintenance.

China, and will be linked by a Millennium Road (east-west horizontal axes coinciding with the old Silk Road). The Government is also preparing a comprehensive human settlement plan⁸ based on five levels of human settlements (instead of the existing three: the capital, secondary towns, and villages) to widen the coverage of basic infrastructure services. These five levels are the capital, regional growth centers, provincial capitals, provincial towns, and villages (*soums*). As the five economic development regions—western, eastern, central, capital, and northern—progress, infrastructure and human settlements will be developed to create favorable living and working conditions for their people. The Action Program thus represents an important shift in urban development policy, giving it a regional economic development context.

8. Except for the PTBUS Project, there have been no systematic approaches to developing these secondary towns, i.e., towns, capitals, or regional growth centers. The United Nations Development Programme/World Bank Water and Sanitation Program specifically targets small settlements in rural Mongolia. A World Bank urban services project in Ulaanbaatar aims to improve access to water supply and sanitation in ger areas. The Japan Bank of International Cooperation has provided assistance to improve water supply and sanitation in Ulaanbaatar, Gobialtay, and Mandalgobi. The residents of the secondary towns are clearly the most disadvantaged in Mongolia.

9. Under the Poverty Partnership Agreement (PPA)⁹ between ADB and the Government, a major strategic direction is toward growth with poverty reduction. The PPA acknowledged the need to generate employment opportunities in secondary towns, particularly regional centers where the poor are. Based on strategic direction under the PPA and initial prioritization criteria such as the needs to improve infrastructure or potential candidates as regional centers, 12 towns¹⁰ were initially identified for consideration. After the Government passes the new human settlement framework in May 2001, further screening to select eight towns will be done emphasizing regional centers and provincial capitals. The Government accords high priority to the Project as it will even out regional development and bring basic infrastructure services to secondary towns as regional service centers. The TA is therefore the next logical step in the long-term improvement of Mongolia's urban and regional development structure in line with the major strategic direction of poverty reduction.

III. THE TECHNICAL ASSISTANCE

A. Objectives

10. The TA will help prepare a financially and economically viable investment project that will improve basic urban services in eight secondary towns in line with the PPA. The TA will (i) examine the roles and functions of secondary towns in the eastern and central provinces and the Government's regional development plans, and select the secondary towns where urban service improvements can be made to maximize the economic benefits of the ensuing investment; (ii) prepare a feasibility study of an investment project for improving basic infrastructure for urban services and enhancing the regional service functions of selected provincial towns; and (iii) propose national policy reforms to improve sector performance. The TA will also assess the need to enhance urban land use planning skills and management of infrastructure services.

⁸ The plan will be submitted to Parliament for approval in May 2001.

⁹ Signed on 24 March 2000.

¹⁰ These are the provincial capitals in Arhangay, Bulgan, Gobisumber, Dornogobi, Dornod, Dundgobi, Umnugobi, Suhbaatar, Hentii, Bayanhongor, Uburhangai, and Gobi-Altai.

B. Scope

11. The TA will firm up proposals for selecting eight towns, taking into account (i) the proposed north-south road network, (ii) the regional development policy stated in Action Program 2000-2004, (iii) the towns' proximity for implementation purposes, and (iv) the Government's plan for a five-level hierarchy of human settlements. Objective selection criteria to be developed will be based on these development priorities, and the selected towns will come from no more than two economic development corridors.

12. The TA will make a comprehensive analysis of improvements in water supply, sanitation, public baths, solid waste management, market, town planning, and the ger areas. In doing so, the results of the PTBUS Project will be reviewed for lessons in developing appropriate investment packages and technical solutions to extend its development approach to the eastern and central provinces. Other urban service subsectors, such as hot-water supply and heating distribution, which are the responsibility of the PUSO in each town and affect PUSO's ability to become self-sustaining, will also be considered. The mix of project components will vary from town to town. The TA will (i) evaluate alternative ways of rehabilitating, improving, and expanding key urban infrastructure and services; (ii) develop optimal investment packages for each selected town and prioritize investment subsectors; (iii) propose capacity-building programs for PUSOs that reflect lessons learned from implementing PTBUS Project; and (iv) assess alternative cost-recovery schemes for urban service provision by reviewing the towns' economic activities and development potential.

13. The TA will focus on infrastructure systems that suit the level of development of the local communities and will be affordable and sustainable over the long term. Solutions that are cost-effective, efficient, easy to maintain; use of the most appropriate technology, and rehabilitate and improve the ger areas will be emphasized. Poverty reduction and job creation opportunities will be considered. Ways of increasing the participation of communities and the private sector in establishing and delivering urban services will also be assessed. The TA will review and develop institutional strengthening proposals to increase (i) central Government capabilities to build, provide, and manage urban infrastructure; (ii) local government and PUSO capabilities to implement sustainable cost recovery schemes and financial management, and (iii) local and central government capabilities in town planning and management for nomadic land use and lifestyle. Outline of the terms of reference for the TA consultants are in Appendix 2.

C. Cost Estimates and Financing Plan

14. The estimated cost of the TA is \$824,000 equivalent of which \$514,000 will be in foreign exchange and \$310,000 equivalent in local currency. ADB will finance the entire foreign exchange cost and \$186,000 equivalent of the local currency cost—\$700,000 equivalent in total. 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 Mongolia will provide the remaining \$124,000 equivalent in local currency cost (Appendix 3). The Government has been informed that approval of the TA does not commit ADB to finance any ensuing project.

D. Implementation Arrangements

15. The Executing Agency (EA) of the TA will be MOI, particularly its Department for Policy and Coordination of Construction and Urban Development (DPCCUD). A TA management unit (TMU) composed of the TA coordinator (the DPCCUD director) and the TA administrator (a professional staff of DPCCUD) will be formed before the consultants are fielded. The TMU will take charge of overall coordination, facilitate implementation arrangements, and act as liaison office for ADB and the consultants. DPCCUD will be

supported by GIACUDPU, representatives from the provinces and selected secondary towns, and the consultants. MOI will lead the policy strategy and planning activities under the TA through a steering committee comprising representatives of MOI, Ministry of Finance and Economy, and GIACUDPU. Once the final eight towns are selected in consultation with the Government and ADB, MOI will appoint representatives from these towns to the steering committee to ensure that the point of view of the local governments is clearly represented and their concerns are addressed.

16. ADB will engage a team of international and domestic consultants in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements for engaging domestic consultants, satisfactory to ADB. The simplified technical proposal procedure will be used to recruit consultants. The TA will be implemented over seven months - August 2001-February 2002. The TA consultants' input is estimated at 71 person-months: 19 international and 52 domestic. The international consultants (with person-months in parentheses) are the following: urban economist or urban development specialist as team leader (6), water and sanitation engineer (4.5), environmental specialist (1), municipal and district heating engineer (2.5), financial/economic analyst (4), and social researcher and community development planner (1). Domestic consultants with expertise in water engineering including centralized heating and hot water systems, sanitation engineering, urban planning, urban economics, municipal engineering, social research, community development, and financial analysis will put in 52 person-months. Key staffs of the secondary towns will be invited for a consultation workshop when the draft feasibility studies are ready. The workshop will be organized by the MOI with the consultants' assistance. The consultants will procure computers and other office equipment following ADB's *Guidelines for Procurement*. Upon completion of the TA, the Government will ensure the items are available for the ensuing project.

17. MOI will give logistical support to the consultants. In Ulaanbaatar and the provincial towns, MOI will provide adequate office space and essential office furniture and equipment, including a computer, a telephone/fax with international direct dialing, and a project vehicle for local transportation and field trips, for the use of the consultants, counterpart professional staff, and support staff throughout TA implementation. MOI will also cover the cost of utilities and local calls.

IV. THE PRESIDENT'S DECISION

18. 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 Mongolia in an amount not exceeding the equivalent of \$700,000 for the purpose of preparing the Integrated Development of Basic Urban Services in Secondary Towns, and hereby reports such action to the Board.

PRELIMINARY PROJECT FRAMEWORK

Design Summary	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
<p>Goal</p> <p>(i) Improve the health and living conditions of residents of secondary towns</p> <p>(ii) Balance regional growth</p>	<ul style="list-style-type: none"> • Improved morbidity, mortality, and skin disease indicators for waterborne and water-wash diseases • Regional growth centers established, and service coverage of the towns' hinterland increased over 200 km radius 	<ul style="list-style-type: none"> • Baseline survey with poverty, health, income, affordability, and access data at beginning and end of Project • Government statistics and reports, reports of bilateral and other external agencies 	<ul style="list-style-type: none"> • Dependence on local and national economic stability/improvement and on continuing Government support • Macroeconomic conditions in the project towns continue to deteriorate, and primacy of the capital intensified.
<p>Purpose</p> <p>(i) Improve access to, and availability of, affordable water, bathing facilities, solid waste service, market, hot-water supply and heat distribution for residents of selected towns</p> <p>(ii) Reduce inequalities in access to urban services between those living in apartments and those in <i>ger</i> areas</p>	<ul style="list-style-type: none"> • Improving water, sanitation, heating, hot water, solid waste management, market and public baths in 8 selected towns • Reduction in price and level of service differentials between apartments and <i>ger</i> (traditional circular tents) residents 	<ul style="list-style-type: none"> • Performance indicators to be developed through institutional strengthening components • Project performance monitoring system (PPMS) and tariff data from the provincial urban services organizations (PUSOs) • Project completion reports (PCRs) 	<ul style="list-style-type: none"> • Inadequate revenue and poor management reduce the capacity to deliver services. • Economic conditions for <i>ger</i> residents continue to deteriorate and towns may be reluctant to provide subsidies for bathhouses.
<p>Outputs (to be developed further through implementation of the TA)</p> <p>(i) Sector agencies capability strengthened by institutional development program</p> <ul style="list-style-type: none"> • Corporatization of PUSOs • Urban and land use planning <p>(ii) Infrastructure investment in about 8 selected towns</p> <ul style="list-style-type: none"> • Water supply • Sanitation and solid waste management • Public bathhouses • Hot water supply • Heating distribution • Market 	<ul style="list-style-type: none"> • Corporatized PUSO • Financial and operational ratios of the PUSOs improved • Long-term comprehensive town and land use planning completed by PUSOs • Implementation of physical improvements in 8 selected towns 	<ul style="list-style-type: none"> • Project progress reports and review missions • PPMS • Management information system of the PUSOs • Review missions and midterm reviews 	<ul style="list-style-type: none"> • Timely provision of counterpart funds
<p>Activities/Inputs (to be developed through implementation of the TA)</p>			

(Reference in text: page 1, para. 1)

TERMS OF REFERENCE FOR CONSULTING SERVICES

A. Selecting for Eight Project Towns and Identifying Investment Packages for Each Town (months 1 and 2)

1. The consultants will help in selecting the project towns and formulating the investment packages. Their specific duties follow.

- (i) Review Action Program (2000-2004) and the resolution approved by the Parliament on 25 January 2001, and all other pertinent sector policies, legislation, plans, and reports and publications by multilateral and bilateral aid agencies, including those of the Asian Development Bank (ADB); assess the initially proposed 12 towns in relation to the Government's regional development policy as well as human settlement framework; considering these policies in the context of regional and national economic development, and other foreign projects relevant to the ensuing project, provide the economic rationale and justification for selecting eight towns with economic growth opportunities; review the prospective developmental roles that these towns will play in the hinterland in the regional context.
- (ii) Review and assess comprehensively the infrastructure and service improvements under the ongoing Provincial Towns Basic Urban Services Project; examine the constraints to smooth implementation caused by distance between the project towns and draw lessons to be incorporated in the design of the proposed project; evaluate typical investment packages implemented during the first project, and examine replicability in other secondary towns.
- (iii) In consultation with the Government and ADB, finalize the selection of eight provincial towns based on objective selection criteria agreed upon; assess the status of the selected towns by preparing a detailed profile, including population, growth rates, rural-urban migration rates, urban poverty levels, resource base, accessibility, levels of urban services, environmental issues relating to the town, employment patterns, revenues and expenditures in each secondary town, locational advantage for growth, service coverage in the regional hinterlands, and any other necessary information.
- (iv) Conduct socioeconomic surveys of selected secondary towns and assess the public perception of problems and development priorities; analyze poverty incidence in each town, including the projected growth in the incidence of urban poverty, and describe the nature and characteristics of urban poverty.
- (v) Analyze the level of physical infrastructure in the secondary towns (water, sanitation, hot water supply, district heating, solid waste management, public baths, community service facilities), quality of service delivery, gaps in service levels between formal and informal settlements, levels of operation and maintenance (O&M) capabilities (budget, staff, equipment, and service quality), and overall financial management capacities of the staff in the secondary towns; examine the appropriateness of urban development master plans and structure plans, their relevance to the proposed Action Program, and their suitability and

viability as a tool for guiding medium- to long-term development under a market economy.

- (vi) Identify possible solutions for improving basic urban services and infrastructure; formulate investment packages in the range of \$2.0 million to \$3.0 million for each town.
- (vii) While implementing the technical assistance (TA), update and expand the project framework to facilitate conceptualization and design of the Project, monitoring of project implementation, and evaluation of project benefits and impacts; update the project framework to incorporate the project performance report during project implementation.
- (viii) At this stage, identify a distinct scope for poverty reduction in secondary towns in line with the Poverty Partnership Agreement between ADB and the Government; in consultation with ADB and the Government, prepare a brief concept paper for targeting poverty reduction, suitable and acceptable for financing from the Japan Fund for Poverty Reduction.
- (ix) Develop preferred packages in draft for each town, and submit, for confirmation by ADB/Government, before subjecting to the conventional feasibility study, as outlined in para. 2.

B. Detailed Feasibility Study (months 2-6)

2. During the feasibility study stage, the consultants will adopt an integrated approach in preparing feasibility studies for each town's basic urban services, viewing the towns' service function in a regional development framework. The basic urban services will be designed to serve the respective provinces, including support for the nomadic economic activities of their respective hinterland. The types and level of services will be assessed, considering the serviced hinterland and affordability to beneficiaries. The feasibility studies will examine the possibility of private sector participation and include the following tasks:

- (i) Examine the existing water supply systems; review availability of water, water quality, level of services, water consumption by user group and socioeconomic conditions; evaluate water demand and supply and make projections up to 2010, evaluate alternative, efficient, and reliable ways to provide water to the *ger* (traditional circular tent) areas and to potential privately built housing areas, and ways to reduce excessive consumption in formal buildings. The Project may finance (a) rehabilitation of the centralized water supply systems, including refurbishment of pumps, repair and replacement of broken pipes, and limited system expansion when expansion improves system efficiency; and (b) a comprehensive program for reducing water loss and leakage, including metering.
- (ii) In cases where there are responsibilities of public urban services organization (PUSO) - examine the existing hot water and heating supply systems at the central treatment plants (CTPs) and from them into the buildings they serve; assess the defects in the systems, the urgency of any repair and upgrading, and evaluate

alternative solutions to identified weaknesses and problems; evaluate alternative, efficient, and reliable ways to provide hot water and heating. The Project may finance the rehabilitation of the CTP equipment and distribution pipes into buildings, including refurbishing pumps, and repair and replacement of broken pipes.

- (iii) Study existing sewerage systems; develop proposals for improving and expanding, if necessary, the sewerage systems, including new connections to privately built housing, paying particular attention to reducing costs. As sewage treatment plants are expensive to operate and difficult to sustain in the context of the secondary towns, the Project may replace or rehabilitate dilapidated sewage treatment works with filtration tanks and sewage lagoons.
- (iv) Study ways to improve the number and quality of bathhouse facilities; evaluate feasible alternatives to the present systems of public baths; study reduction of costs in O&M of the facilities, as well as changes in the existing pricing structure; carefully check the need for cross-subsidies for public baths to ensure their wide use and propose the most efficient way for these subsidies to be designed; make proposals for involving the local communities and the private sector in delivering and/or managing public baths.
- (v) Analyze existing arrangements for solid waste management and assess solid waste collection requirements; identify the division of responsibilities among local institutions and assess ways to improve the management of the services; evaluate the possibility and opportunity to privatize and/or commercialize solid waste services. To reduce transport costs and casual disposal of solid waste, the Project will encourage the development of new disposal sites close to the towns. Local communities will be encouraged to provide this service through a leasing system or subcontracting of services.
- (vi) Study ways to develop ger areas, particularly by upgrading the existing areas and regularizing new ones; review planning standards with the Ministry of Infrastructure (MOI) and provincial administrations; prepare conceptual updated plans for each town, and identify areas where early development is expected and which require detailed area action plans in conjunction with housing development.
- (vii) Socioeconomic Analysis. From a realistic assessment of economic prospects for each town, estimate current and future demands for all services to determine the extent of incremental and nonincremental improvement needed (such as efficiency improvements), assess poverty impact and affordability of current services, assess the socioeconomic benefits of the Project as well as its possible negative impact, to determine the local communities' needs and views, conduct beneficiary surveys, organize workshops in each town and discussions with local community leaders, nongovernment organizations (NGOs), and women's organizations; follow the revised draft *Handbook for Poverty and Social Analysis* to prepare a gender-responsive project design; (a) conduct gender analysis, and (b) identify constraints on women participation in project design, O&M, and training.
- (viii) Environmental Aspects: Prepare an initial environmental examination (IEE) for each subproject, and a summary IEE for the whole project in accordance with

ADB's *Environmental Guidelines for Selected Infrastructure Development Projects* and environmental assessment requirements and review procedures; address the impacts on urban social infrastructure services during project implementation, construction, and operation; and propose measures to mitigate the adverse impacts identified.

- (ix) Project Design. Prepare preliminary engineering designs for the investment components; prepare detailed cost estimates for all proposed subcomponents; follow ADB's guidelines and standards in developing the cost estimates and use the software COSTAB for the purpose; prepare a financing plan, examine flow of funds, assess in detail the availability of the required counterpart fund, implementation schedules, and recommend suitable implementation arrangements, including procurement, disbursements, reporting schedule, role and responsibilities of the Executing Agency (EA), PMOs, provincial government, selected secondary towns, and PUSOs; estimate consulting services inputs needed for project implementation, including further institutional strengthening and development programs, engineering design and construction supervision over the implementation period; propose modes of procurement in accordance with ADB's guidelines.

- (x) Financial and Economic Aspects. Carry out financial and economic analyses for the proposed components and prepare financing plans: (a) review past and present financial performance of the PUSOs; (b) prepare financial projections, including income statements, balance sheets, cash flow statements, capital investment schedule, and other relevant financial statements, for operations 10 years after project completion; (c) compute relevant financial indicators of each agency to assess its financial viability; (d) review cost-recovery policies and tariffs in each town; (e) assess the affordability of current services and the ability to increase tariffs and charges in the short and medium term, giving special attention to the potential impact on low-income households and marginal business activities, and develop specific measures to reduce the impact of tariff increases where necessary; (f) evaluate the need for subsidies to ensure affordability of the poor; (g) quantify the subsidy element and identify the targets of the subsidy; (h) examine feasible cost recovery approaches to ensure full O&M and sustainability of the initial investments; (i) compute the financial internal rate of return (FIRR), economic internal rate of return (EIRR), and the average incremental cost in both financial and economic terms, for the various components, as relevant, following ADB's guidelines; (j) identify project risks and introduce ways in the project design to minimize them, thorough sensitivity analyses, including the computation of sensitivity indicators and switching values; and (k) study and recommend mechanisms for initial contributions from the beneficiaries as well as the local and central governments for financing a reasonable share (i.e., 20 percent in the case of ADB) of investment costs for urban infrastructure and services, particularly water supply and sanitation. Refer to ADB's *Handbook on the Economic Analysis of Water Projects* and the draft *Financial Management Guidelines*.

- (xi) Develop Institutional Strengthening Program. Review and incorporate lessons from recent evaluation reports¹ to enhance project sustainability through community participation; identify deficiencies and prepare recommendations for strengthening PUSO's institutional and technical capability for providing urban services, encompassing the administrative, management, organizational, technical and financial aspects; recommend strengthening capabilities for local physical planning and land management; suggest legislative and institutional reforms for greater decentralization of functions and decisions, including investment decisions; propose ways for turning PUSOs into financially viable enterprises and estimate the scope for privatizing urban services provision and delivery.
- (xii) Training. Assess the training needs of the main agencies involved in delivering and managing urban services and prepare outlines of training programs; and give relevant scope of works and terms of reference in case consultants are needed.
- (xiii) Prepare draft feasibility studies for the first four towns and draft an institutional and capacity building program report, incorporating associated sector analysis and background data for its justification; submit the draft by the fifth month from TA commencement for ADB and Government's (including respective PUSOs) review; reflect comments and recommendations from ADB and Government in reports for the other four towns and prepare a draft final report by the seventh month from TA commencement.
- (xiv) Once draft feasibility studies are ready, organize and conduct workshops at which the draft feasibility studies will be discussed in detail by each secondary town; request participating government officials from secondary towns to prepare detailed comments on the draft feasibility studies before the workshops.

C. Project Preparation (Months 6-7)

3. Under ADB's new business processing guideline, the consultant team will work under the guidance of ADB's task manager in preparing and finalizing the necessary project documents. The consultant team will work together with the ADB Fact-Finding Mission during the last stage of TA implementation to provide full technical assistance to the Mission. The tasks include (i) actively working as part of the Mission for finalizing the investment program prepared during the second stage, and drafting the final report in a coherent manner reflecting the mission's policy dialogue with the Government; (ii) working as part of the mission in drafting the memorandum of understanding; (iii) preparing the final report in a form acceptable to ADB. The report will contain detailed town profiles, cost estimates, institutional development programs, poverty impact assessment, environmental examination, capacity building components, tariff projection and analysis for cost recovery, and other necessary information.

¹ PPA: 22264, 23242, 20104-INO: *Three Integrated Urban Infrastructure Development Projects: Secondary Cities Urban Development (Sector) Project/BOTABEK Urban Development Project/Bandar Lampung Urban Development Project*, November 2000, and IES: REG 97019: *Impact Evaluation Study of Bank Assistance to the Urban Development and Housing Sector*, December 1997.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Foreign Exchange	Local Currency	Total Cost
A. Asian Development Bank Financing^a			
1. Consultants			
a. Remuneration and Per Diem			
i. International Consultants	410	-	410
ii. Domestic Consultants	-	99	99
b. International and Domestic Travel	24	45	69
c. Reports and Report Translation	4	4	8
2. Equipment ^b	8	-	8
3. Workshops	-	3	3
4. Miscellaneous Administrative and Support Costs	3	3	6
5. Representative for Contract Negotiations	5	-	5
6. Contingencies	60	32	92
Subtotal (A)	514	186	700
B. Government Financing			
1. Counterpart Staff Remuneration and Per Diem	-	39	39
2. Office Accommodation and Utilities	-	18	18
3. Local Travel and Transportation	-	16	16
4. Others (workshops, translation, administrative supports, and office supplies)	-	19	19
5. Communication/Dissemination Costs	-	9	9
6. Contingencies	-	23	23
Subtotal (B)	-	124	124
Total	514	310	824

^a Financed from Japan Special Fund

^b Two computers, one laser printer, a copy machine, and a fax machine.

Source: Staff estimates.

(Reference in text: page 4, para. 14)